Under the Patronage of His Majesty King Abdullah II Ibn Al Hussein

تحت رعاية جلالة الملك عبدالله الثاني ابن الحسين المعظم

9th International Conference of The

Royal Medical Services

المؤتمر الدولي التاسع للخدمات الطبية الملكية

JOHEX Jordan Health Exhibition

المعرض الصحي الأردني

Leadership in Healthcare: Commitment & Challenges

الريادة في الرعاية الصحية: واجبات وتحديات

الملخصات العلمية

ABSTRACT BOOK

لغاية ٢٤ ساعة معتمدة للتعليم الطبي المستمر
من مجلس الطبي الأردني

Upto 24 CME Hours
Accredited by Jordan Medical Council

٦ ساعات معتمدة من مجلس الإعتماد الأمريكي للتمريض

6 CME Hours Accredited by American Nurses Credentialing Center

His Majesty

King Abdullah II Ibn Al Hussein

His Royal Highness

Crown Prince Al Hussein Bin Abdullah II

Contents

Collaboration with International Organizations

President's Welcome Note

Dear Colleagues and Friends,

It gives us great pleasure to invite you to the **9th International Conference of the Royal Medical Services and Jordan Health Exhibition (JOHEX)** to be held Under the Patronage of **His Majesty King Abdullah II Ibn Al Hussein** at **King Hussein Bin Talal Convention Center; Dead Sea; in the period of 30 October - 02 November 2018.**

We are honored to host this international conference after the great success of previous RMS Biennial International Conferences. It will be attended by more than 5000 participants from around 60 countries; in the fields of *Medicine, Dentistry, Pharmacy, Nursing, Allied Health Professions,* and *Military Medicine* to identify the changes in health care practices needed to prepare health care providers for the new challenges ahead.

Many esteemed international distinguished guest speakers from different specialties and backgrounds have been invited to give lectures and participate in panel discussions covering conference theme *"leadership in Healthcare: commitment & challenges"* as well as conduct a myriad of workshops.

Jordan Health Exhibition (JOHEX) is an outstanding platform for international, national companies, and agencies operating in health industry for display of advanced technologies, innovations, as well as offering context for trade marketing. I would like to thank our many Sponsors for contributing generously to the conference by taking a part in the Exhibition or by sponsoring Guest Speakers for the many workshops at hand.

We are proud of previous RMS conferences active participation from many international organizations and societies, such as *World Health Organization (WHO), International committee of Military Medicine (ICMM), Pan-Arab Regional Group Of Military Medicine (PARWG), The Royal College Of Surgeons of England (RCS Eng), Royal college of physicians (RCP), World Federation of Hemophilia (WFH), AO Spine, AO CMF, International Committee of Red Cross (ICRC), The International Committee of Spinal Cord Injury (ISCOS), The National Arab American Medical Association (NAAMA), Center For Disease Control And Prevention (CDC), International Diabetes Federation, U.S. Armed Forces Health Surveillance Center (AFHSC), U.S. Military HIV Research Program, Walter Reed Army Institute Of Research (WRAIR), Sidra Medical and Research Center, PONSETI INTERNATIONAL, and Thomas Jefferson University.* We are hoping for similar prestigious partnerships for this upcoming conference.

Beyond the myriad scientific activities, we hope you enjoy your stay at the dead sea, Where the weather this time of year is excellent, and also get a chance to explore many other wonders of Jordan. A visit to Petra will give you the opportunity to know more about the beautiful rose city along with its stunning scenery and unique history.

We wish you all a memorable scientific, social experience and a most enjoyable stay in Jordan.

President of the Conference
Director General of the Royal Medical Services
Major General Muin S. Al-Habashneh, MD

		Sea Floor						Ground floor			First Floor			
		A1	A2	B	C	D	E	F	G	H	I	J	K	L
	Time/ Hall	Dead Sea 1 (300)	Dead Sea 2 (300)	Mount Nebo 1 (140)	Mount Nebo 2 (140)	Petra 1 (100)	Petra 2 (100)	Wadi rum 1 (150)	Wadi rum 2 (130)	Muata (70)	Harraneh 1 (140)	Harraneh 4 (48)	Harraneh 5 (140)	Harraneh 6 (90)
Tuesday 30 October 2018														
17:00-18:00		**Opening Ceremony**												
Wednesday 31 October 2018														
09:00 17:00		**Registration**												
1	09:00-11:00	Nursing Opening Ceremony		Adult Nephrology	Radiology	Emergency & Family Medicine	RMS &Community Sustainable Development	Colorectal Surgery	Adult GI	Dermatology Oncology Symposia	Neonatology	Pulmonary Medicine & thoracic surgery	Ophthalmology	Laboratory Medicine
2	11:30-13:30	Nursing		Adult Rheumatology	Radiology	Emergency & Family Medicine		Bariatric Surgery	Dermatology	Psychiatry	Pediatric Nephrology	Pulmonary Medicine & thoracic surgery	Ophthalmology	Laboratory Medicine
	13:30-14:30	Lunch								Neurology Symposium				
3	14:30-16:30	Nursing		Adult Neurology	Radiology	Emergency & Family Medicine		Hepato- biliary Surgery	Dermatology	ICU Sterilization Symposia	Pediatric Pulmonary	Oncology	Ophthalmology	Laboratory Medicine
4	17:00-18:30	Nursing FP		Adult Neurology	Vascular	FP Session		Hepato- biliary Surgery	Dermatology		Infectious Diseases	Radiotherapy	Ophthalmology FP	Committee Meetings
Thursday 1 November 2018														
09:00 17:00		**Registration**												
1	09:00-11:00	AHP	Dentistry	Endocrinology	Anesthesia	Gyn & Obs		Plastic Surgery	Breast Surgery		Pharmacy Opening Ceremony	Neuro Rehabilitation	Orthopedic	Field Medicine
2	11:30-13:30	AHP	Dentistry	Adult Cardiology	ICU	Gyn & Obs		Plastic Surgery	ENT		Pharmacy	Urosurgery	Spinal Cord Injury (Rehab,Ortho, Neuro)	Preventive Medicine
	13:30-14:30	Lunch									Pharmacy Symposium			
3	14:30-16:30	AHP	Dentistry	Congenital Cardiology	Anesthesia	Gyn & Obs		Pediatric Surgery	ENT		Pharmacy	General Rehabilitation	Orthopedic & Neuro-Spine Surgery	Orthopedic Arthroplasty
4	17:00-18:30	AHP	Dentistry	Cardiac Surgery	Anesthesia & AHP FP	Gyn & Obs FP		Pediatric Surgery	ENT		Pharmacy FP	Dentistry FP	Orthopedic	Neurosurgery
Friday 2 November 2018														
08:30-10:30		**Military Medical Exhibition**												

Workshops

No	Specialty	Title	Speaker	Moderator	Date	Time	Hall	Venue
W1	General surgery	Basic Surgical skills	Nasser Q Ahmad,MD(Jordan)	Nasser Q Ahmad,MD	25-26/10/2018	08:00-17:00	BEI	KHMC
W2*	Hepatobiliary surgery	Laparoscopic Hepatobiliary Procedures	Mohammad Abuhilal, Prof (UK)	Sameer Smadi, MD Ashraf Faori, MD	28/10/2018	08:00-13:00	KHHL	KHMC
W3*	Thoracic Surgery	Advanced VATS Cases	Henrik Hansen, MD (Denmark)	Dr Mohammed Tarshihi	29/10/2018	09:00-15:00	KHHL	KHMC
W4	Colorectal Surgery	Challenging Cases in Colorectal Surgery	Antonio de Lacy, Prof (Spain)	Ahmad Uraiqat, MD	30/10/2018	08:00-13:00	QRPH Con	KHMC
W5*	Pediatric surgery	Pediatric Urology	Paddy Dewan, MD (Australia)	Ahmad Raymooni, MD	27/10/2018	09:00-15:00	QRPHELAB	KHMC
W6*	Pediatric surgery	Re Constructive Surgery of Ano-Rectal Malformations in Children	Paddy Dewan, MD (Australia)	Ahmad Raymooni, MD	28/10/2018	09:00-15:00	QRPHA	KHMC
W7*	Pediatric surgery	Bladder Neck Reconstruction in Infants and Children	Paddy Dewan, MD (Australia)	Ahmad Raymooni, MD	29/10/2018	09:00-15:00	QRPHELAB	KHMC
W8*	Laparoscopic and Upper GI Surgery	Redo Bariatric Surgery	Karl Miller, Prof (Austria)	Wael Nasan, MD Moh Hrout, MD	28/10/2018	08:00-13:00	HHPH	KHMC
W9	Pediatric Cardiology	Melody Valve Insertion (Transcatheter)	Alain Friasse, Prof (UK)	Abdelfattah abo Haweleh, MD	28-29/10/2018	08:00-14:00	QAHI Cath Lab	KHMC
W10	Pediatric Neonatology	Optimizing Neonatal Ventilation	Naomi McCallion, Prof (Ireland)	Hashem Al Aqrabawi, MD Faten Al Awaysheh, MD	30/10/2018	09:00-1400	QRPHA	KHMC
W11*	Gynecology	Laparoscopic Gynecology	Hans-Rodulf tinneberg, Prof (Germany)	Ebrahim Bni Irshaid , MD	29/10/2018	08:00-14:00	HHC3OR	KHMC
W12	Orthopedics Upper limb	Basic Shoulder Arthroscopy	Alessandro Castagna, Prof (Italy)	Malek Ghnaimat, MD Ayman Mustafa, MD	28/10/2018	09:00-16:00	HHRADIO Dept	KHMC
W13*	Physical Medicine & Rehabilitation	Navigated Brain Stimulation for Enhancing Brain Function Post Injury (Tele-workshop)	Faraz Jeddi, Prof (UK)	Zaid al-Dhamsheh, Md	28/10/2018	09:00-16:00	QRPHELAB	KHMC
W14	Physical Medicine & Rehabilitation	U/S Guided Botulinum Toxin Workshop	Srinivasa C Budithi,MD (England)	Moh'd Rami Al-Ahmar, MD	29/10/2018	09:00-16:00	NCARL	KHMC
W15	Radiology	Prostate MRI	Anwar Padhani, Prof (UK)	A. Adwan, Md A. Hiari, MD	30/10/2018	09:00-13:00	HHRADIO Dept	KHMC
W16	Radiology	Stroke	Ahmad Iqbal, MD (UK)	H. Husami, MD M. Bani Hani, MD	29/10/2018	09:00-13:00	HHRADIO Dept	KHMC
W17	Radiology/IR	Interventional Neuroradiology	Charbel Mounayer, Prof (France)	M. Khawaldeh, MD	29/10/2018	09:00-16:00	HH Cath	KHMC

Workshops

No	Specialty	Title	Speaker	Moderator	Date	Time	Hall	Venue
W18	Radiology/IR	Peripheral Vascular Disease	Maher Al Khawaldeh, MD (JOR)	Samer Al Jfoot, MD	30/10/2018	09:00-16:00	HH Cath	KHMC
W19	Radiology/IR شركة الجزيئات الطبية Micromed Medical Supplies Co.Ltd	EVAR and TEVAR	Maher Al Khawaldeh,MD (Jordan)	Samer Al Jfoot, MD	28/10/2018	09:00-16:00	HH Cath	KHMC
W20*	ENT	Endoscopic ear surgery	Iivio Presutti, Prof (Italy)	Motassim Arroosan, MD	28/10/2018	08:00-13:00	RRCPHA	KHMC
W21*	ENT	Surgery for Sleep Disordered Breathing, Overview and Up to Date	Claudio Vicini, Prof (Italy)	Sufian Alnawaiseh, MD	29/10/2018	08:00-13:00	RRCPHA	KHMC
W22*	Ophthalmology	Live Vitreoretinal Surgeries	Felipe Dhawahir-Scala, Mr (UK)	Walid Qubain, MD	28/10/2018	08:00-13:00	HHOphth Dept	KHMC
W23*	Ophthalmology	Minimal Invasive Glaucoma Surgery (MIGS)	Ingeborg Stalmans, Prof (Belgium)	Mohannad Albdour, MD	29/10/2018	08:00-13:00	HHOphth Dept	KHMC
W24*	Ophthalmology	Advanced Microkeratome used in Lasik in Different Corneal Shapes	Dilek Dursun Altinors, Prof (Turkey)	Dr Nancy Raqqad	30/10/2018	08:00-13:00	HHOphth Dept	KHMC
W25*	Oral and Maxillofacial Surgery	Anaplastiology in facial reconstruction	Claudia Hoepner, Dr (Germany)	Zuhair Muhaidat, DDS Mohammed Al khawaldeh, DDS	27/10/2018	09:00-12:00	QRPH	KHMC
W26	Periodontology	Periodontal Plastic Surgical Procedures(Mucogingival Surgery, Smile Enhancement, Free Gingival Auto Grafting with Frenectomy, and Connective Tissue Grafting)	Tariq Javed, Dr (USA)	Daameh Daameh, DDS	30/10/2018	09:00-12:00	HHPH	KHMC
W27	Nursing	Art of ECG Interpretation: Hands-on workshop	Samer Kashkol, Dr (USA)	Mahmoud Abu-Alfoul, RN	28/10/2018	09:00-14:00	QAHIL	KHMC
W28	Nursing	Chemotherapy for Cancer Patients	Samer Kashkol, Dr (USA)	Hala Adwan, RN	29/10/2018	09:00-14:00	HHPH	KHMC
W29	Nursing	Communicating Bad News	Myrna Abi-abdallah Doumit, Prof (Lebanon)	Nuha Remon, RN	28/10/2018	10:00-12:30	PMCNA	KHMC
W30	Nursing & Endocrinology	Continuous Glucose Monitoring	Eleanor Scott, Dr (UK)	Reem Qaddah, RN	29/10/2018	10:00-12:30	PMCNH	KHMC
W31	Emergency	Basic Ultrasonography in Critical Trauma Patient ,What Should Emergency Physicians Know?	EPAT /(Turkey)	Mohammed ALedwan, MD Kanssa Abu Ghonmeen, MD	30/10/2018	10:00-12:00	KHHL	KHMC
W32	Emergency	Antidotes: what should the emergency physician know?	Bruno Megarbane MD, (French)	Mohammed ALedwan, MD Kanssa Abu Ghonmeen, MD	30/10/2018	08:00-10:00	KHHL	KHMC
W33	Pharmacy_ Clinical pharmacy	Global and National mechanisms for reshaping the scope of practice frameworks for pharmacists.	Ian Bates, Prof (UK)	Pharm Reem Mahadeen	29/10/2018	09:00-11:00	QRPHA	KHMC
W34	Pharmacy_ Clinical pharmacy	Clinical and Bedside Training and Assessment: Training on the Run	Janet P. Engle, Prof (USA)	Pharm Taghreed Habashneh	29/10/2018	11:30-13:30	QRPHA	KHMC
W35	Allied Health Professions (Nutrition)	Nutrition and Bone Health	Hassan Ali Vatanparast, Prof (Canada)	Reem Tyem ,PhD Malek Alzgoul, Nutrition Eng	30/10/2018	09:00-12:30	RRCPHA	KHMC
W36	Allied Health Professions (Nutrition)	Refugee Nutritional and Health	Hassan Ali Vatanparast, Prof (Canada)	Reem Tyem ,PhD Malek Alzgoul, Nutrition Eng	30/10/2018	12:30-14:30	RRCPHA	KHMC
W37	Allied Health Professions (Physiotherapy)	Spinal Cord Injury Evaluation	Chitra Kataria, Prof (India)	Razeen T. Amawy, PT	27/10/2018	08:15-13:00	RRCPHA	KHMC

No	Specialty	Title	Speaker	Moderator	Date	Time	Hall	Venue
W38	Allied Health Professions (Physiotherapy)	Spinal Cord Injury Physical Therapy	Chitra Kataria, Prof (India)	Thara'a A.Al-hyari, PT	27/10/2018	13:00-17:00	RRCPHA	KHMC
W39	Plastic and Reconstructive Surgery	The Suprazygomatic (High SMAS) Facelift	Bryant A. Toth, Prof (USA)	Khaldoun Dweikat Al Abbadi, MD	29+30/10/ 2018	09:00-16:00	RRC Plast OR	KHMC
W40	Adult Nephrology	Kidney Transplantation in High Risk Patient, Post Transplant Infections	Lionel Rostaing, Prof (France)	AYHAM HADDAD, MD IBRAHIM SMADI,MD NABIL AKASH, MD	29/10/2018	09:00-12:00	QRPHOD	KHMC
W41	Neurology	Assessment and Management of Patients with Difficult Movement Disorders. (Tremor, Parkinsonism, Chorea, Dystonia, Ataxia, Spasticity).	David Nicholl, MD (UK)	Majed Habahbeh, MD	30/10/2018	10:00-14:00	QRPHOD	KHMC
W42	Vascular	Endovenous Ablation of Varicose Veins	Omar Zo'bi, MD (Jordan)	Kristi Janho,MD Jan Shishani,MD Mohammed Rashaydeh,MD	29/10/2018	09:00-12:00	HH Vasc OR	KHMC
W43	Vascular	Endovascular AAA Repair	Omar Zo'bi, MD (Jordan)	Kristi Janho,MD Jan Shishani,MD Ashraf Shabatat,MD	29/10/2018	12:00-15:00	HH Vasc OR	KHMC
W44	Dermatology	Clinical Dermatology: Pearls for Practice	Claudia Pfohler, Prof, (Germany)	Hussein Odeibat, MD Issam Oumeish, MD Bashar Abbasi, MD Dr.Munir Mrayat	28/10/2018	09:00-11:30	QRPHOD	KHMC
W45	Anesthesia	Difficult Airway Management	Peter Groom, MD (UK)	Ghazi Aldehaiat, MD Moneer Aldogom, MD Yaser Algool,MD	29/10/2018	08:00-12:00	HH OR8	KHMC
W46	Pediatric pulmonology	Pediatric Bronchial Asthma & Rare lung Diseases	Gary Connett, MD (UK)	Nisreen Humeideen, MD	30/10/2018	09:00-11:00	QRPHELAB	KHMC
W47	Gynecology	Micro Dissection of Testis (Micro Tese)	Jonathan Ramsay, Prof (UK)	Emad AlShare, MD	31/10/2018	08:00-15:00	HHC3OR	KHMC
W48	ENT	Ear and Lateral base of skull surgery	Mohammed Shazli (EGY)	Sufian Nawayseh, MD	3+4/11/2018	08:00-13:00	RRCPHA	KHMC
W49	Orthopedics	Reconstruction	Arnold suda (Aus)	Ghaith Abu Noar, MD	4-8/11/2018	09:00-16:00	RRC Ortho OR	KHMC

* live Surgery or Cases

Amman

- KHMC: King Hussein Medical Center, HH OR: Hussein Hospital Operating Room, HHPH: Hussein Hospital Physiology Hall, HHRADIO Dept: Hussein Hospital Radiology Department, HHCath Lab: Hussein Hospital Catheterization Laboratory,KHHL1: King Hussein Hospital Library Lecture Hall, KHHL2: King Hussein Hospital Library Main Hall, HHOphth Dept: Hussein Hospital Ophthalmology Department, HHGI Unit: Hussein Hospital Gastroenterology Unit, HHEU: Hussein Hospital Endoscopy Unit, HHDENT Dept: Hussein Hospital Dentistry Department,HHAUDIO Dept:Hussein Hospital Audiology Department, HHEMG/EEG Unit: Electromyography/ Electroencephalogram Unit,HHGC: Hussein Hospital Gynecology Clinic, HHC3OR: Hussein Hospital C3 Operating Room, BEI: Biomedical Engineering Institute, RRCPHA: Royal Rehabilitation Center - Prince Hamzah Auditorium, RRC OR: Royal Rehabilitation Center Operating Room, NCAR: National Center for Amputee Rehabilitation, QAHI Cath Lab: Queen Alia Heart Institute Catheterization Laboratory, QAHIL: Queen Alia Heart Institute Lecture Room, QRPHA: Queen Rania Pediatric Hospital Auditorium, QRPHL: Queen Rania Pediatric Hospital Library, QRPHHO: Queen Rania Pediatric Hospital Hakeem OfficeQRPHOW: Queen Rania Pediatric Hospital - Oncology Ward, QRPHIDU: Queen Rania Pediatric Hospital-Immunology Day Unit, QRPHOR: Queen Rania Pediatric Hospital Operating Room, QRPHCU: Queen Rania Pediatric Hospital Chemotherapy Unit, PHCUOT: Prince Hussein Center for Urology and Organ Transplant.

Hall A1,A2

Dead Sea Hall

Under the Patronage of HRH Princess Muna Al Hussein
Nursing Department Scientific Day

Opening Ceremony

9:00- 9:45

9:02-9:04	Recitation of Holy Quran
9:04-9:10	Speech of The RMS Nursing Director: Brig.Gen.Rema Al-Majaly
9:10-9:20	Speech of His Excellency RMS Director: Maj.Gen. Muin Al-Habashneh
9:20-9:40	Inspirational Speech of Keynote Speaker Her Excellency Prof.SheilaTlou **"Nursing and Midwifery Leadership in Sustainable Development"**
9:40-9:45	Presenting Plaques by HRH Princess Muna Al Hussein for The International and National Guest Speakers

Session title: **Non Communicable Diseases**

Hall **Dead Sea Hall: A1 and A2**

Moderatos: *Huda Gharaibeh RN PhD, Abdullah Abu-Alfoul RN, Raeda Bani-Hani RN*

Time	Presentation title	Speaker (country)
09:00-09:45 (1)	Opening ceremony: Under the Patronage of HRH Princess Muna Al Hussein	
09:45-10:10 (2)	New Frontier in Heart Disease: B/P Old Problem: New Opportunities	Rafat Qahoush, RN PhD (USA)
10:10- 10: 30 (3)	Acute Myocardial Infarction (Primary Angioplasty As The Main Modality of Therapy)	Hatem Al-Salaheen, MD (Jordan)
10:30-10:50 (4)	Cardiovascular Diseases: The Present and the Future Health Concerns	Manar Nabolsi, RN PhD (Jordan)
10:50-11:00	Discussion	
11:00- 11:30	Coffee Break	

Session title: **Evidence Based Nursing Practice & Quality of Care**

Hall **Dead Sea Hall: A1 and A2**

Moderatos: *Mohammad Saleh RN PhD, Ibtesam Haddad RN, Wafaa Abu-Rabea RN*

Time	Presentation title	Speaker (country)
11:30-12:00 (5)	Cancer Screening Guidelines (Detecting Cancer Early): American Cancer Society Guidelines for The Early Detection of Cancer	Rafat Qahoush, RN PhD (USA)
12:00-12:30 (6)	Understanding The Personal Meaning of Work for Oncology Nurses	Myrna Doumit, RN PhD (Lebanon)
12:30-12:50 (7)	Developmental Care Approaches and the Neurobehavioral Development of Premature Newborns	Nadin Abdel Razeq, RN PhD (Jordan)
12:50-13:00 (8)	Nurses Knowledge and Perception Regarding Noise in the Neonatal Intensive Care Unit	Shereen Otaibi, RN MSc CNS (Jordan)
13:00-13:10 (9)	Role of Wound Management Clinic in Improving Quality of Patients Care: RMS Experience	Amal Ramadneh, RN (Jordan)
13:10-13:20 (10)	Prevalence and Correlates of Cardiac Cachexia among Jordanian Patients with Chronic Heart Failure	Ahmad Al-Omari, RN MSc CNS (Jordan)
13:20-13:30	Discussion	
13:30-14:30	Lunch Break	

Session title: **General Perspective for Psychiatric Health Problems**

Hall **Dead Sea Hall: A1**

Moderatos: *Majed Afef RN PhD, Noof Baddawi RN, Eman Habashneh RN*

Time	Presentation title	Speaker (country)
14:30-15:00 (11)	Spirituality Among Parents of Children with Cancer in Middle Eastern Countries	Myrna Doumit, RN PhD (Lebanon)
15:00-15:20 (12)	Global, Regional and National Perspective of Psychiatric Health Problems among Children	Amjad Jumai'an, MD (Jordan)
15:20-15:40 (13)	Principle of growth and development overview	Manar Aqrabawi, MD (Jordan)
15:40-15:50 (14)	Nursing Perspective in The Care of Children with Psychiatric Health Problems	Osama Obaid, RN MSc CNS (Jordan)
15:50-16:00 (15)	Global Development Delayed among Jordanian Children	Eman Ka'bneh, RN (Jordan)
16:00-16:20 (16)	Psychosocial Aspects of Childbirth: Child and Mother	Alaa Ababneh, RN PhD CNS(Jordan)
16:20-16:30	Discussion	
16:30-17:00	Coffee Break	

Session title: **Nursing Free Papers**

Hall **Dead Sea Hall: A2**

Moderatos: *Manar Nabolsi RN PhD, Haifa Abu-Jassar RN, Amal Abbadi RN*

Time	Presentation title	Speaker (country)
14:30-14:40 (17)	The Pre- Hospital Fluid Resuscitation Strategy in Tactical Combat Casualty Care	Maria Remi, RN (Greece)
14:40-14:50 (18)	Effect of Asthma MD Smartphone Application on Quality of Life among Adolescents with Asthma in High Schools in Jordan	Ahlam Attallah Al Sarayrah, RN (Jordan)
14:50-15:00 (19)	Asymptomatic Peripheral Arterial Disease among Diabetic Patients	Waqqas Abu Jabalh, RN (Jordan)
15:00-15:10 (20)	"Midwives and Obstetricians' Attitudes Toward Midwifery Practice Roles in Hospitals"	Reema Hamdan Kiewan, RN (Jordan)
15:10-15:20 (21)	Evaluation of The Effect of Childbirth Preparation Course on Self-Efficacy, Anxiety and Birth Outcomes among Nulliparous Jordanian Women.	Asma'a Shaker AbdelMahdi AbuAbed, RN (Jordan)
15:20-15:30 (22)	Effect of Maternal Age on The Risk of Preterm Birth between Primigravida and Multigravida	Bothaina Aref Qatamin, RN (Jordan)
15:30-15:40 (23)	Nurses' and Patients' Perception of Quality of Psychiatric Nursing Care in Jordan	Wafa S. Alsyoof, RN (Jordan)
15:40-15:50 (24)	Assessing Social Anxiety in Persons Who Stutter	Nuha Remon Yacoub, RN (Jordan)
15:50-16:00 (25)	Exploring The Levels of Parental Perception and Stress among Parents Having an Obese Or overweight Children Aged 7-12 Years: South of Jordan	Sonia Kreshan, RN (Jordan)
16:00-16:10 (26)	Device Associated Health Care Associated Infection (DA-HAI) at King Hussein Medical Centre	Jansait Nasser Al Quraan, RN (Jordan)
16:10-16:20 (27)	Prevalence and Association of Premenstrual Syndrome and Premenstrual Dysphoric Disorder With Academic Performance among Female University Students	Jumana Hussiene Shehadeh, RN (Jordan)
16:20-16:30	Discussion	
16:30-17:00	Coffee Break	

Scientific Program

Session title:	**Adult Nephrology**
Hall	**Hall B (Mount Nebo 1)**
Moderators:	*Dr. Nabil Akash ,Dr. Ibrahim Smadi, Dr. Munther Hijazat*

Time	Presentation title	Speaker (country)
09:00-09:30 (28)	Treatment of Hepatitis C Virus infection in the setting of CKD patients	Prof. Lionel Rostaing, (France)
09:30-09:50 (29)	Recurrence of FSGS in kidney transplantation	Dr Nabil Akash, (Jordan)
09:50: 10: 20 (30)	Live-kidney transplantation in the presence of performed DSAs	Prof. Lionel Rostaing, (France)
10:20:10:40 (31)	Management of Anemia in Chronic Kidney Disease	Dr Ayham Haddad, (Jordan)
10:40: 10:50 (32)	Does Fasting Ramadan Affect Graft Function in Renal Transplant Recipients?	Dr Hussien Al Shebli Otoum (Jordan)
10:50-11:00	Discussion	
11:00- 11:30	Coffee Break	

Session title:	**Rheumatology**
Hall	**Hall B (Mount Nebo 1)**
Moderators:	*Dr Ala' Al-Heresh, Dr. Manal Al Mashaleh, Dr. Khaldon Alawneh*

Time	Presentation title	Speaker (country)
11:30-11:55 (33)	Acute Rheumatologic Conditions	Prof. Nicholas Manolios, (Australia)
11:55-12:15 (34)	Management of Systemic Lupus Erythematosis in pregnancy	Dr Manal Al Mashaleh (Jordan)
12:15-12:40 (35)	Update in Systemic Lupus Erythematosis	Dr Ala'AlHeresh, (Jordan)
12:40-13:10 (36)	The Cholinergic Anti-inflammatory Pathway in Arthritis	Prof. Nicholas Manolios (Australia)
13:10-13:30 (37)	Updates in Vasculitis	Prof. Ali Jawad (UK)
13:30-14:30	Lunch Break	

Session title:	**Neurology I**
Hall	**Hall B (Mount Nebo 1)**
Moderators:	*Dr. Munir Daheyat , Dr. Mohammad Shehab, Dr. Abdelrahim Dweiri*

Time	Presentation title	Speaker (country)
14:30 – 15:00 (38)	Approach to the Patient with a Movement Disorder	Dr. David Nicholl (UK)
15:00- 15:30 (39)	Update on Neuromyelitis Optica Spectrum Disorder	Dr. Saeed Dahbour (Jordan)
15:30-16:00 (40)	The Neurology of Vitamins and Minerals	Dr. Majed Habahbeh (Jordan)
16:00-16:30 (41)	Aetiology and Genetics of Parkinson's disease	Dr. David Nicholl (UK)
16:30-17:00	Coffee Break	

Session title:	**Neurology II**
Hall	**Hall B (Mount Nebo 1)**
Moderators:	*Dr. Abdellatif Wureikat, Dr. Maurice Dahdaleh, Dr. Majed Habahbeh, Prof. Khaled El-Salem*

Time	Presentation title	Speaker (country)
17:00-17:30 (42)	Management of Acute Stroke	Prof. Pierre Amarenco (France)
17:30-18:00 (43)	Headache and Stroke	Prof. Marie-Germaine Bousser (France)
18:00-18:30 (44)	Secondary Prevention of TIA and Minor Stroke	Prof. Pierre Amarenco (France)
18:30-19:00 (45)	Cerebral Venous Thrombosis	Prof. Marie-Germaine Bousser (France)

Session title:	**Radiology-I**
Hall	**Hall C (Mount Nebo 2)**
Moderators:	*Dr. Mohammad Hiari, Dr. Abdallah Al-Omari, Dr. Asem Mansour, Dr. Ahmad abo Ain*

Time	Presentation title	Speaker (country)
09:00-09:40 (46)	MRI for Diagnosing Prostate Cancer	Prof. Anwar Padhani (UK)
09:40-10:20 (47)	Differential Diagnosis of Intracranial Space Occupying Lesions	Dr. Ahmed Iqbal (UK)
10:20-11:00 (48)	Multiparametric Imaging of Bone Marrow Metastatic Disease	Prof. Anwar Padhani (UK)
11:00- 11:30	Coffee break	

Session title:	**Radiology-II**
Hall	**Hall C (Mount Nebo 2)**
Moderators:	*Dr.Mohammad Gatasheh, Dr. Izzeddin Qtaish, Dr. Mamon AL-Omari, Dr. Abdalhamid Adwan*

Time	Presentation title	Speaker (country)
11:30-12:00 (49)	Intracranial Hemorrhage and its Approaches	Dr. Ahmed Iqbal (UK)
12:00-12:30 (50)	Whole Body DWI for Tumor Detection and Assessment of Response	Prof. Anwar Padhani (UK)
12:30-13:00 (51)	Stroke Imaging and Stroke Mimics	Dr. Ahmed Iqbal (UK)
13:00-13:30 (52)	MRI of the Lung, Indications and Risks	Dr. Waleed Mahafza (Jordan)
13:30-14:30	Lunch Break	

Session title:	**Radiology –III**
Hall	**Hall C (Mount Nebo 2)**
Moderatos:	*Dr. Mohammad Etawi, Dr. Waleed Mahafza, Dr. Zeid Alaween, Dr. Asem Al-Hiari*

Time	Presentation title	Speaker (country)
14:30-15:00 (53)	Contrast Enhance Ultrasound; Our Experience at KHMC	Dr. Adnan R. Zayadeen (Jordan)
15:00-15:30 (54)	Ultrasonography of Hyperparathyroidism	Dr. Mohammad Gatasheh (Jordan)
15:30-15:45 (55)	Stereotactic Body Radiotherapy (SBRT) Boost to Mimic High-Dose Rate (HDR) Brachytherapy Boost for Intermediate Risk Prostate Cancer: A Phase 1 Study	Dr.Motasem Al-Hanaqta (Jordan)
15:45-16:00 (56)	Two Years Overall Survival of Patients with Glioblastoma Multiform Treated with Radiotherapy and Temozolamide -Royal Medical Services Experience	Dr.Nizar Mohammed (Jordan)
16:00-16:15 (57)	The Role of PET-CT in Volume Definition in Lung Cancer	Dr. Haytham Saraireh (Jordan)
16:15-16:30 (58)	Multimodality Imaging in The Early Diagnosis of Invasive Lobular Breast Cancer	Dr. Suha Ghoul (Jordan)
16:30-17:00	Coffee Break	

Session title:	**Vascular Surgery:**
Hall	**Hall C (Mount Nebo 2)**
Moderatos:	*Dr. Jan shishani, Dr. Omar zoabi, Dr. Kristi janho*

Time	Presentation title	Speaker (country)
17:00-17:25 (59)	Vascular challenges in kidney Transplantation	Dr. Omar Zoabi (Jordan)
17:25-17:50 (60)	Acute lower limb Ischemia as a First Presentation For Ping Pong Cardiac Thrombus	Dr. Kristi Janho (Jordan)
17:50-18:15 (61)	Thrombin Injection in False Aneurysm Repair	Dr. Mohammed Rashaydeh (Jordan)
18:15-18:30 (62)	Arterioarterial Bypass for Hemodialysis	Dr. Mohammed Asad (Jordan)

Scientific Program

Session title:	**Environmental and Disaster Session in Cooperation with EPAT (Emergency Physician Association of Turkey)**
Hall	**Hall D (Petra 1)**
Moderatos:	*Dr. Ahmad Essalim, Dr.Suleiman AL-Abadi , Prof. Sedat Yanturali*

Time	Presentation Title	Speaker (country)
9:00 – 9:20 (63)	Emergency Department Management In Disasters	Prof. Behcet Al (Turkey)
9:20 – 9:40 (64)	Attitude Emergencies	Prof. Basar Cander (Turkey)
9:40 – 10:00 (65)	Experience of Scaling up Family Practice in the East Mediterranean Region	Dr. Mohamed Tarawneh (Jordan)
10:00 -10:20 (66)	Chemical Hazmat: Management and Hospital Organization	Prof. Bruno Megarbane (France)
10:20-10:40 (67)	Hypothermia and Heat Illness	Assist- prof. Afsin Emre Kayipmaz (Turkey)
10:40- 11:00 (68)	High voltage Electrical Burns/Electric Shock and Lightening	Associate prof. Sadiye Yolcu (Turkey)
11:00- 11:30	Coffee Break	

Session title:	**Environmental and Disaster Session in Cooperation with EPAT(Emergency Physician Association of Turkey)**
Hall	**Hall D (Petra 1)**
Moderatos:	*Dr. Moneer Arabyat , Dr. Mohamed Tarawneh, Prof. Basar Cander*

Time	Presentation title	Speaker (country)
11:30-11:50 (69)	Chemical weapons :Risk and Poising Management	Prof. Bruno Megarbane (France)
11:50-12:10 (70)	Thermal and chemical Burns	Associate prof. Sadiye Yolcu (Turkey)
12:10-12:30 (71)	Emergency Medicine in Jordan where we stand?	Dr.lega Alrafea (Jordan)
12:30-12:50 (72)	Management of Mass Injuries - Bombing, Mass Shooting	Assist prof. Afsin Emre Kayipmaz (Turkey)
12:50-13:10 (73)	Should We Intubate Drug/ Induces Coma?	Prof. Bruno Megarbane (France)
13:10 -13:30 (74)	Experience RMS Emergency Medicine Massive casualty producing Events	Dr. Ahmad Aldhoun (Jordan)
13:30-14:30	Lunch Break	

Session title:	**Trauma Session in Cooperation with EPAT (Emergency Physician Association of Turkey)**
Hall	**Hall D (Petra 1)**
Moderatos:	*Dr. Mohammed AL. Adwan , Dr.Mohammed AL.quran, Prof Behcet Al*

Time	Presentation Title	Speaker (country)
14:30-14:50 (75)	Approach to the Multiple Trauma Patient	Pro. Basar Cander (Turkey)
14:50-15:10 (76)	Stop the Bleed – Scene / Pre-Hospital Management of Bleeding Patient	Prof. Sedat Yanturali (Turkey)
15:10-15:30 (77)	Trauma care in Jordan Role of National Emergency Medical Services in Educational center RMS.	Brig. Hazem Ajarmeh (Jordan)
15:30-15:50 (78)	Diagnostic Approach to Trauma Patient with Shock	Prof.Behcet Al (Turkey)
15:50-16:10 (79)	Principles of Blood Transfusion and Fluid Treatment in Trauma	Associate prof Sadiye Yolcu (Turkey)
16:10-16:30 (80)	Toxicological analysis : Is it useful for Poisoning Management	Prof Megarbane Bruno (France)
16:30-17:00	Coffee Break	

Session title:	**Free Paper Session**
Hall	**Hall D (Petra 1)**
Moderators:	*Prof. Sedat Yanturali ,Dr. Mohammed AL. Adwan, Eman Habashneh RN*

Time	Presentation title	Speaker (country)
17:00-17:20 (81)	Evaluation of Difficulties Emergency Physicians Face During Consultation Process	Assist prof. Afsin Emre Kayipmaz (Turkey)
17:20-17:35 (82)	Interventional bronchoscopy in king Hussein Medical Center (KHMC) Jordan; methods evaluation and comparison	Dr.Raja Alkhasawneh (Jordan)
17:35-17:50 (83)	The Emotional Impact of Mental Illness on Mental Health Providers	Dr. Raafat Aburumman (Jordan)
17:50-18:00 (84)	Pulmonary Complications Secondary to Immune-Checkpoint Inhibitors	Dr.Hasan Ahmad Hasan Albitar (Jordan)
18:00-18:15 (85)	Neonatal Infant Pain Scale Application, Documentation, and Their Impact on Non Pharmacological Pain Management Utilization	Effat Al-Maaitah, RN (Jordan)
18:15-18:30 (86)	Degree of Patient's Satisfaction at King Hussein Emergency Department in Royal Medical Services	Enad Al Sharayaa, RN (Jordan)

Session title: (RMS)	**Royal Medical Services and Community Sustainable Development**
Hall	**Hall E (Petra 2)**
Moderatos:	*Prof. Rowaida Al-Maaitah RN, B.G Adel Wahadneh MD*

Time	Presentation title	Speaker (country)
10:00-10:15 (87)	Communities for Sustainable Development: the Role of Nurses and Midwives	Prof. Sheila Tlou RN, (Botswana)
10:15-10:30 (88)	Assessment of Trainees (Residents and Fellows)	Dr. David Nicholl (UK)
10:30-10:45 (89)	Innovating Health Care through Global Collaborations	Mr. Gregg Davis, (USA)
10:45-11:00 (90)	"Investment in Healthcare: The Return on Investment"	Fawzi Al-Hammouri MD (Jordan)
11:00-11:15 (91)	Advanced Scope of Practice for Health Care Professional to Meet The Challenges of Universal Health Coverage	Prof. Muntaha Gharaibeh, (Jordan)
11:15-11:30 (92)	Medicolegal Issues: How Much Do We Know?	Dr. David Nicholl (UK)
11:30-11:45 (93)	Jordan Food and Drug Administration Policies and Essential Role in Community	Dr. Hayel Obeidat (Jordan)
11:45-12:00	Discussion	
13:30-14:30	Lunch Break	

Session title:	**Colorectal Surgery**
Hall	**Hall F (Wadi Rum 1)**
Moderatos:	*Prof. Antonio de Lacy, Dr.Amer Amirah, Dr.Ahmad Uraiqat*

Time	Presentation title	Speaker (country)
09:00-09:25 (94)	TACRES (TransAnal ColoRectal Surgery). New Indications for Transanal Approach	Prof. Antonio de Lacy (Spain)
09:25-9:40 (95)	Colorectal Cancer Surgery Audit	Dr.Ahmad Uraiqat (Jordan)
09:40-10:05 (96)	Tips And Tricks In TaTME	Prof. Antonio de Lacy (Spain)
10:05: 10: 25 (97)	The Dilemma of Surgery for Anal Fistulae	Dr. Wael Fatayer (Jordan)
10:25-10:50 (98)	Innovation and results of TaTME Surgery	Prof. Antonio de Lacy (Spain)
10:50-11:00	Discussion	
11:00:11:30	Coffee Break	

Scientific Program

Session title:	**Bariatric and Metabolic Surgery**
Hall	**Hall F (Wadi Rum 1)**
Moderators:	*Dr. Mohammad Al Hrout , Dr. Karl Miller , Dr. Salam Daradkeh*

Time	Presentation title	Speaker (country)
11:30-11:50 (99)	Why To Become COE in Bariatric Surgery	Prof. Karl Miller (Austria)
11:50-12:10 (100)	Bariatric Surgery at RMS	Dr. Mohammad Al Hroot (Jordan)
12:10-12:30 (101)	Management of RYGB Failure	Prof. karl Miller (Austria)
12:30-12:50 (102)	The Magnitude of Antral Resection in LSG And its Relationship to Excess Weight Loss	Dr. Feras Obeidat (Jordan)
12:50-13:10 (103)	Management of post bariatric surgery metabolic complications	Prof. Karl Miller (Austria)
13:10 – 13:20 (104)	Decompression illness: Experience at Royal Medical Services	Dr. Ismail Alnjadat (Jordan)
13:20 -13:30	Discussion	
13:30-14:30	Lunch Break	

Session title:	**Hepato-pancreatico-biliary Surgery**
Hall	**Hall F (Wadi Rum 1)**
Moderators:	*Dr. Abdelaziz Ziadat, Dr. Khalid Obidat, Dr. Sameer Smadi*

Time	Presentation title	Speaker (country)
14:30-14:55 (105)	Liver Transplantation for Hepatocellular Carcinoma	Prof. Yaman Tokat (Turkey)
14:55-15:20 (106)	Liver Transplantation in Jordan	Dr. Abdullah Al-Bashir (Jordan)
15:20-15:45 (107)	Living Donor Liver Transplantation What We Learned	Prof. Yaman Tokat (Turkey)
15:45-16:10 (108)	The Role Of Laparascopy in The Management Of Pancreatic Pathologies	Prof. Moh. Abu Hilal (UK)
16:10-16:30 (109)	Two Stage Liver Surgery	Dr. Sameer Smadi (Jordan)
16:30-17:00	Coffee Break	

Session title:	**Hepato-pancreatico-biliary Surgery**
Hall	**Hall F (Wadi Rum 1)**
Moderators:	*Dr.Abdelaziz Ziadat, Dr.Khalid Obidat, Dr.Sameer Smadi*

Time	Presentation title	Speaker (country)
17:00-17:30 (110)	The Southampton Guidelines On Laparascopic Liver Surgery, Before And After	Prof. Moh. Abu Hilal (UK)
17:30-18:00 (111)	Multidisciplinary Approach To Transplantation: Comprehensive Transplant Center	Dr. Sinan Nazif Aran, (Turkey)
18:00-18:30 (112)	Surgical Management Of Hepatico-Jejunostomy Stricture	Dr. Tareq Mnaizel (Jordan)

Session title:	**Adult Gastroenterology**
Hall	**Hall G (Wadi Rum 2)**
Moderators:	*Dr. Imad Alghazzawi, Dr. Waleed Obidat, Dr. Mohammad Rasheed*

Time	Presentation title	Speaker (country)
09:00-9:30 (113)	Management Of Variceal Bleeding	Dr. David Patch (UK)
09:30-09:50 (114)	NASH	Dr. Yasser Rayyan (Jordan)
09:50-10:15 (115)	Management Of Splanchnic Vein Thrombosis	Dr. David Patch (UK)
10:15-10:30 (116)	Hepatitis C Eradication In Jordan	Dr. Imad Alghazzawi (Jordan)
10:30-10:40 (117)	IBD Mimicking Diseases	Dr. Talal Al Shawabkeh (Jordan)
10:40-10:50 (118)	Correlation Between Non Invasive Fibrosis Test Assessment And Liver Biopsy In King Hussein Medical Center	Dr Sultan Ahmed Bin Tarif (Jordan)
10:50-11:00	Discussion	
11:00-11:30	Coffee Break	

Session title:	**Dermatology I**
Hall	**Hall G (Wadi Rum 2)**
Moderators:	*Dr. Hussein Odeibat , Dr. Haidar Habahbeh Dr. Mohammad Al-Muhaisen Dr. Zuhair Bisharat*

Time	Presentation title	Speaker (country)
11:30-12:15 NOVARTIS (119)	Immunopathogenesis and Multisystemic Involvement of Psoriasis	Prof. Wolf-Henning Boehncke (Germany)
12:15-13:00 (120)	Update in Atopic Dermatitis - New Therapeutic Options	Prof. Claudia Pföhler (Germany)
13:00:13:20 (121)	Mosaicism in Dermatology	Assistant Prof. Noor Al Maani (Jordan)
13:20-13:30	Discussion	
13:30-14:30	Lunch Break	

Session title:	**Dermatology II**
Hall	**Hall G (Wadi Rum 2)**
Moderators:	*Dr. Taghreed Maaita Dr. Awad Al-Tarawneh, Dr. Khitam Al-Refu Dr. Hamdan Al-Ammouri*

Time	Presentation title	Speaker (country)
14:30-15:15 (122)	Systemic Therapy of Metastatic Melanoma Including Targeted Therapy and Checkpoint Inhibition	Prof. Claudia Pföhler (Germany)
15:15-15:45 (123)	Dermatopathology Consultation Makes a Difference; Clinicopathological Presentation of Few Cases	Assistant Prof. Awad Hasan Al-Tarawneh (Jordan)
15:45-16:05 (124)	Common Transient Neonatal Dermatoses	Dr. Hussein Odeibat (Jordan)
16:05:16:25 (125)	Updates on Acne Management, Emphasis on Acne Scarring in Pigmented Skin	Associate Prof. Firas Al-Qarqaz (Jordan)
16:25-16:30	Discussion	
16:30-17:00	Coffee Break	

Scientific Program

Session title:	**Dermatology III**
Hall	**Hall G (Wadi Rum 2)**
Moderators:	*Dr. Salah Abdallat Dr. Nidal Obeidat Dr. Hajar Abul Ainain Dr. Hanadi Al-Quran*

Time	Presentation title	Speaker (country)
17:00-17:25 (126)	Trichoscopic Features of Hair Loss in Children	Associate Prof. Khitam Al-Refu (Jordan)
17:25-17:50 (127)	Fractional CO2 Laser in Treatment of Hypertrophic Burn Scars	Dr. Salah Abdallat (Jordan)
17:50-18:10 (128)	Cutaneous Photophysical and Photochemical Changes Induced by Ultraviolet Light	Dr. Ayman Al Qa'qaa' (Jordan)
18:10-18:20 (129)	Bedside Microscopy in Dermatology	Dr. Hiathem Abualhaija, (Jordan)
18:20-18:30 (130)	Treatment of Atrophic Scars using Platelet-rich Plasma and Subcision: an Experience at King Hussein Medical Center	Dr. Jehad Shaher Ahmad AlAssaf (Jordan)

Session title:	**Dermatology Oncology Symposia**
Hall	**Hall H (Muata)**
Moderators:	

Time	Presentation title	Speaker (country)
9:00-9:45 NOVARTIS (131)	Cosentyx: a game changer in Psoriatic Disease	Dr. Wolf-Henning Boehencke (Germany)
10:00-11:00 MSD INVENTING FOR LIFE (132)	Paradigm Shift in the treatment of Non-Small Cell Lung Cancer	Prof. Christian D. Rolfo (Belgium)
11:00- 11:30	Coffee Break	

Session title:	**Psychiatry**
Hall	**Hall H (Muata)**
Moderators:	*Dr. Radwan Bani Mustafa, Dr. Saëd Shunaq, Dr. Maher Asasleh Dr. Rafat Abu Rumman*

Time	Presentation title	Speaker (country)
11:30-11:55 (133)	Changes in Mental State and Behavior in Huntington's Disease	Prof. Hugh Rikards, (UK)
11:55-12:20 (134)	New Avenues for Treatment in Huntington's Disease	Prof. Hugh Rikards, (UK)
12:20- 12:45 (135)	Why Olanzapine Beats Risperidone, Risperidone beats Quetiapine Beats Olanzapine. How effective are Psychiatric treatments.	Ass. Prof. Jed Megan, (USA)
12:45-13:10 (136)	Psychosocial Assessment of Pre-Transplant Candidates	Dr. Selvi Kayipmaz (Turkey)
13:10-13:30 (137)	Tourette's Syndrome; What do You Know?	Dr. Amjad Jumaián, (Jordan)
13:30- 14:30 Roche (138)	Neurology Lunch Symposium From Evolution to Revolution in Multiple Sclerosis	Prof. Nikolaos Grigoriadis, (Greece)

Session title:	**ICU Sterilization Symposia**
Hall	**Hall H (Muata)**
Moderators:	

Time	Presentation title	Speaker (country)
14:30-15:30 FHS (139)	Remote Diagnostic Technologies	Eng. Dott Davide, (Germany)
15:30-16:30 FHS (140)	Evolution of H2O2 Low Temperature Sterilization	Dr. Georgia Alevizopoulou (Greece)
16:30-17:00	Coffee Break	

Session title:	**Neonatology**
Hall	**Hall I (Harraneh 1)**
Moderators:	*Dr.Hashim Aqrabawi ,Dr.Mahmood Kaabneh*

Time	Presentation title	Speaker (country)
09:00-09:30 (141)	Managing Meconium Aspiration in 2018	Prof.Naomi McCallion (Ireland)
09:30-09:50 (142)	Recent Guidelines in Management of Respiratory Distress Syndrome	Dr. Mohammad Khasawneh (Jordan)
09:50: 10: 10 (143)	Homeostasis in Very Low Birth Weight Infants	Prof.Naomi McCallion (Ireland)
10:10:10:30 (144)	Long Term Respiratory Outcomes in Preterm Infants	Dr.Faten Al Awaysheh (Jordan)
10:30: 10:50 (145)	Neonatal Hypoglycemia, American Academy Statement Versus European And Other Guidelines	Dr.Mohammad Khasawneh (Jordan)
10:50-11:00	Discussion	
11:00- 11:30	Coffee Break	

Session title:	**Pediatric Nephrology and Kidney Transplant**
Hall	**Hall I (Harraneh 1)**
Moderators:	*Dr.Reham Mardini , Dr.Edward Saqa, Dr.Reem Hadidi*

Time	Presentation title	Speaker (country)
11:30-12:00 (146)	Antibody Mediated Rejection.	Dr. Patrick Brophy (USA)
12:00-12:20 (147)	Pediatric kidney Transplantation: KHMC Experience.	Dr. Ghazi Salaita (Jordan)
12:20: 12: 50 (148)	PTLD Approach &Treatment.	Dr. Patrick Brophy (USA)
12:50:13:10 (149)	AKI in Infancy.	Dr. Issa Hazza (Jordan)
13:10: 13:20 (150)	Acute Cellular Rejection among Jordanian Pediatric Patients.	Dr. Mahdi Frehat (Jordan)
13:20-13:30	Discussion	
13:30- 14:30	Lunch Break	

Session title:	**Pediatric Pulmonary**
Hall	**Hall I (Harraneh 1)**
Moderators:	*Dr. Abdulhameed Najada, Dr.Ehsan Jundi*

Time	Presentation title	Speaker (country)
14:30-15:00 (151)	New treatment of CF: are they the answer?	Dr. Gary Connett (UK)
15:00-15:20 (152)	CF metabolic syndromes	Dr. Muna Dahabreh (Jordan)
15:20-15:50 (153)	What Makes difficult asthma difficult?	Dr. Gary Connett (UK)
15:50-16:10 (154)	Chronic aspiration syndromes	Dr Mona Al kilani (Jordan)
16:10: 16:20 (155)	Our experience with asymptomatic vitamin D deficient children at Prince Hashem bin Al-Hussein Hospital. A Retrospective Study revealing how prevalent children recording low level of vitamin D although asymptomatic	Dr. Fadi farhan ayyash (Jordan)
16:20-16:30	Discussion	
16:30- 17:00	Coffee Break	

Scientific Program

Session title: Pediatric Infectious Diseases
Hall Hall I (Harraneh 1)
Moderators: *Dr.Hashim Aqrabawi, Dr.Ahmad Abu Zaid*

Time	Presentation Title	Speaker (country)
17:00-17:30 (156)	Illustrated Cases in Pediatric Infectious Disease	Prof. Walid Abuhammour (UAE)
17:30-18:00 EHS (157)	Evidence-Based Clinical Decision Support And Medical Education For Quality Improvement in Infectious Diseases	Dr. Kieran Walsh (UK)
18:00-18:30 (158)	Pediatric Infectious Disease Emergencies	Prof. Walid Abuhammour (UAE)

Session title: Adult Pulmonary & Thoracic Surgery
Hall Hall J (Harraneh 4)
Moderators: *Dr.Fawaz Al-Khammash, Dr.Jafar Al-Momani, Dr.Soliman Al-Momani*

Time	Presentation title	Speaker (country)
09:00-09:30 (159)	Interstitial Lung Disease: Lessons For The Clinic	Prof.Lawrence Mcalpine (Scotland)
09:30-10:00 (160)	Screening For Lung Cancer	Dr.Solaiman Al-Momani (Jordan)
10:00: 10: 30 (161)	How To Set a VATS Lobectomy Program & How To Proceed	Prof.Henrik Hansen (Denmark)
10:30-11:00 (162)	Minimally Invasive Mediastinal Surgery	Dr. Riad Abdel Jallel (Jordan)
11:00-11:30	Coffee Break	

Session title: Adult Pulmonary & VATS Lobectomy for Lung Cancer
Hall Hall J (Harraneh 4)
Moderators: *Dr.Haitham Al-Khushman, Dr.Adnan Al-Abadi, Dr.Mohammad Al-Tarshihi*

Time	Presentation title	Speaker (country)
11:30-12:00 (163)	VATS Lobectomy in N2 Disease	Prof.Henrik Hansen (Denmark)
12:00-12:30 (164)	VATS Lobectomy for Early Stage Lung Cancer: Update of The Experience at KHMC	Dr.Mohammad AL-Tarshihi (Jordan)
12:30-13:00 (165)	Initial Experience With Conventional TBNA at KHMC	Dr. Adnan Abadi (Jordan)
13:00-13:15 (166)	Precision Medicine Comes To Advanced Asthma Care	Prof. Lawrence Mcalpine (Scotland)
13:15:13:30 (167)	Complications of VATS Lobectomy	Prof. Henrik Hansen (Denmark)
13:30-14:30	Lunch Break	

Session title: Oncology and Radiotherapy I
Hall Hall J (Harraneh 4)
Moderators: *Dr. Ahmad Telfah Dr. Khalifeh Al- Omari Dr. Ahmad Othman*

Time	Presentation title	Speaker (country)
14:30-15:00 NOVARTIS (168)	Latest Updates in The Treatment of Hormone Positive Her2 Breast Cancer	Dr. Nuhad Ibrahim (USA)
15:00-15:30 (169)	Venous Thromboembolism Prophylaxis For Ambulatory Cancer Patients	Dr. Hikmat Abdelrazeq, (Jordan)
15:30-16:00 (170)	Myelodysplastic Syndromes: Review Of Diagnosis And Updates in Management	Dr. Aref Kali, (USA)
16:00-16:30 Roche (171)	Changing Paradigms in Urothelial Carcinoma	Prof.Enrique Grande (Spain)
16:30-17:00	Coffee Break	

Session title: Oncology and Radiotherapy II
Hall Hall J (Harraneh 4)
Moderators: *Dr.Belal Elhawwari, Dr.Laith Al-Oglah Dr.Haytham Al-Sarayreh*

Time	Presentation title	Speaker (country)
17:00-17:30 (172)	Update on Non-Infectious Pulmonary Complication of BMT	Dr.Ayman Soubani (USA)
17:30-17:45 (173)	Episcleral Plaque Therapy For Ocular Tumors, KHCC Experience	Dr.Imad Jaradat (Jordan)
17:45-18:00 (174)	The Role Of Radiotherapy in The Management Of Cervical Tumors, RMS Experience	Dr. Hana Al-Mahasneh (Jordan)
18:00-18:20 (175)	Clinical Characteristics And Treatment Outcome For Adult Medulloblastoma: A Retrospective Analysis	Dr. Abdellatif Al-Mousa (Jordan)
18:20-18:30 (176)	Updates Of Multiple Myeloma	Dr. Majdi Jdaeh (Jordan)

Session title: Ophthalmology Session I: Glaucoma
Hall Hall K (Harraneh 5)
Moderators: *Dr. Wisam Shhadeh, Dr. Mahmoud Mbaideen, Dr. Muhannad Bdour*

Time	Presentation title	Speaker (country)
09:00-9:25 (177)	Xen Gel Stent Implantation: Personal Experience And Clinical Trial Results.	Prof. Ingeborg Stalmans (Belgium)
09:25-09:45 (178)	Medical Management of Glaucoma: Guidelines and Beyond.	Dr. Wisam Shhadeh (Jordan)
09:45-10:10 (179)	Ultrasound Cilioplasty (UCP): Efficacy And Safety	Prof. Ingeborg Stalmans (Belgium)
10:10-10:25 (180)	Risk Of Blindness in Glaucoma Patients	Dr. Muhannad Bdour (Jordan)
10:25-10:50 (181)	The Battle For The Perfect Bleb: Antifibrosis Beyond Antimitotics	Prof. Ingeborg Stalmans (Belgium)
10:50-11:00	Discussion	
11:00-11:30	Coffee Break	

Session title: Ophthalmology Session II: Retina
Hall Hall K (Harraneh 5)
Moderators: *Dr. Faisal Fayyad, Dr. RehamShaaban, Dr. Basel Baarah*

Time	Presentation title	Speaker (country)
11:30-11:50 (182)	Management of Endophthalmitis: Time to change	Mr. Felipe Dhawahir (UK)
11:50-12:10 (183)	Surgical Management of Vitreomacular Interface Abnormalities in Diabetic Patients.	Dr. Faisal Fayyad (Jordan)
12:10-12:25 (184)	27G Vitrectomy. The Good and Bad.	Mr. Felipe Dhawahir (UK)
12:25-12:40 (185)	To Peel or Not To Peel The Internal Limiting Membrane in Idiopathic Epiretinal membranes and macular holes surgeries.	Dr. Basel Baarah (Jordan)
12:40:13:00 (186)	Strategies in Eye Trauma Cases, and Intraocular Foreign Bodies.	Dr. Faisal Fayyad (Jordan)
13:00-13:20 (187)	Management of Submacular haemorrhage	Mr. Felipe Dhawahir (UK)
13:20-13:30	Discussion	
13:30-14:30	Lunch Break	

Scientific Program

Session title:	**Ophthalmology Session III: Cornea & Refractive Surgery**
Hall	**Hall K (Harraneh 5)**
Moderators:	*Dr Issam Bataineh, Dr Wafa' Asfour, Dr Zuhair Adham*

Time	Presentation title	Speaker (country)
14:30 – 15:00 (188)	Advances in Dry Eye Clinic and Management	Prof. Dilek Dursun Altinors (Turkey)
15:00 -15:10 (189)	Keratoprosthesis…Managing The Unmanageable!	Dr.Nancy Al Raqqad (Jordan)
15:10 - 15:35 (190)	Post-Surgical Fine Tuning of Residual Refractive Errors (1)	Prof. Dilek Dursun Altinors (Turkey)
15:35-15:45 (191)	Descemet Membrane Endothelial Keratoplasty	Dr. Amal Mosa Alwreikat (Jordan)
15:45-15:55 (192)	Ocular Discomfort After Different Epithelial Debridement Techniques for Corneal Collagen Cross Linking	Dr.Hosam Alkayid (Jordan)
15:55-16:20 (193)	Post-Surgical Fine Tuning of Residual Refractive Errors (2)	Prof. Dilek Dursun Altinors (Turkey)
16:20-16:30	Discussion	
16:30-17:00	Coffee Break	

Session title:	**Ophthalmology Session: Free Paper**
Hall	**Hall K (Harraneh 5)**
Moderators:	*Dr. Ismat Eraifej, Dr. Muhammad Hashki, Dr. Thabit Odat*

Time	Presentation title	Speaker (country)
17:00-17:20 (194)	Clinical Classification System for The Spectrum of Microphthalmos (MAN)	Dr. Thabit Odat (Jordan)
17:20-17:40 (195)	Causes and Risk Factors of Visual Impairment Among Uveitis Patients in Jordan	Dr.Ahmed E. Khatatbeh (Jordan)
17:40-18:00 (196)	The Outcome of Combined Trabeculotomy and Trabeculectomy in the Treatment of Primary Congenital Glaucoma	Dr. Hiba khraisat (Jordan)
18:00-18:20 (197)	Topical Anesthesia: To Shift Or Not To Shift	Dr.Laith Taisir Al Khateeb (Jordan)
18:20-18:30	Discussion	

Session title:	**Updates in Pathology and Laboratory Medicine.**
Hall	**Hall L (Harranah 6)**
Moderators:	*Dr.Salah AlJitawi Dr.Ismail Matalka Dr.Nazmi Kamal*

Time	Presentation title	Speaker (Country)
09:00-09:45 (198)	The Value of Touch Imprints in Pediatric Pathology.	Dr. Samir Kahwash (USA)
09:45-10:15 (199)	Reversal of DOACs.	Dr. Jecko Thachil (UK)
10:15-10: 40 (200)	Essentials Of Quality Management in Pathology and Laboratory Medicine.	Dr. Maher Sughayer (Jordan)
10:40:11:00 (201)	Update On Immunohistochemical Analysis in Breast Lesions	Dr. Ahlam Awamleh (Jordan)
11:00- 11:30	Coffee Break	

Session title:	**Latest in Pathology and Laboratory Medicine**
Hall	**Hall L (Harranah 6)**
Moderators:	*Nidal Al Masri. MD, Fayez Hajiri MD, William Haddadin. MD.*

Time	Presentation title	Speaker (Country)
11:30-12:15 (202)	Acute Myeloid Leukemia: New Unusual Subtypes.	Dr. Samir Kahwash (USA)
12:15-12:45 (203)	The Role of Thromboelastogram in Bleeding.	Dr. Jecko Thachil (UK)
12:45-13:10 (204)	Current Understanding of Eosinophilic Colitis And its Clinicopathological Characteristics.	Dr. Heyam Adnan Awad (Jordan)
13:10:13:30 (205)	Antimicrobial Susceptibility Patterns at KHMC 2017	Dr. Mohammad Almaayteh (Jordan)
13:30-14:30	Lunch Break	

Session title:	**Challenging Cases in Pathology and Laboratory Medicine**
Hall	**Hall L (Harranah 6)**
Moderators:	*Dr. Hassan Ennab Dr. Nabih Al Kaisi Dr. Luma Fayyad*

Time	Presentation Title	Speaker (country)
14:30-15:15 (206)	Lymph Node Pathology and Pediatric Lymphomas. Slide Seminar.	Dr. Samir Kahwash (USA)
15:15-16:00 (207)	Challenging Cases in Bleeding Disorders. Cases Presentation.	Dr. Jecko Thachil (UK)
16:00-16:30 (208)	Clinicopathologic Features of Castleman's Disease: Experience at King Hussein Medical Center	Dr. Sura Alrawabdeh (Jordan)
16:30-17:00	Coffee Break	

Thursdays 1st November 2018

Session title:	**Allied Medicine: Radiology and Audiology**
Hall	**Hall A1 (Dead Sea 1)**
Moderators:	*Col. Reem Obidat, Ret. Maj. Gen. Elaian AL-Jbour, PhD Haitham Oidat.*

Time	Presentation Title	Speaker (Country)
09:00-09:20 (209)	Cortical and Subcortical Morphometric and Iron Changes in Relapsing-Remitting Multiple Sclerosis and Their Association With White Matter T2 Lesion Load: A 3-Tesla Magnetic Resonance Imaging Study	Ali Al-Radaide, PHD (Jordan)
09:20-09:30 (210)	Optically Stimulated Luminescence (OSL) is The Mean of Measuring The Stuff Radiation Expose in (King Husain Medical Center)	Alaa Rashid Ali Abd Alrahim (Jordan)
09:30-09:40 (211)	New Protocol For Aorto-Femoral CT Angio Using Low Contrast Media With The Advent of Faster Scanners at King Hussain Medical Center?	Alzahraa Hatem (Jordan)
09:40: 10: 00 (212)	Establishment of Diagnostic Reference Levels in Cardiac Computed Tomography Scan in Jordan: A Need For Patient Dose Optimization	Mohammad A Rawashdeh, PHD (Jordan)
10:00:10:10 (213)	A New Protocol for Pulmonary CT Angiography Using the Lowest Amount of Iodinated Contrast	Khaleda Mohammad (Jordan)
10:10:10:20 (214)	Coronary CTA Vs. Coronary Catheterization	Zeiad Mohammad Semrin (Jordan)
10:20:10:40 (215)	Hearing Threshold Levels Obtained by Evoked Auditory Brain Stem and Pure Tone Audiometry in Normal Hearing Adults	Hussain Y. Alqassem, PHD (Jordan)
10:40: 10:50 (216)	Keratoconus	Dana Alwaked (Jordan)
10:50-11:00	Discussion	
11:00- 11:30	Coffee Break	

Scientific Program

Session title:	**Allied Medicine: Nutrition and Speech pathology**
Hall	**Hall A1 (Dead Sea 1)**
Moderatos:	*PhD Reema Tyem, Eng. Ahmad AL-Zreqat, 2nd lt. Malek Al-Zgoul.*

Time	Presentation Title	Speaker (country)
11:30-12:00 (217)	Calcium Supplementation and CVD Risk Controversies	Prof. Hassan Vatanparast (Canada)
12:00-12:10 (218)	Prevalence and Associated Factors of Metabolic Syndrome Among Type-2 Diabetic Patients	Ala'a Basheer Al-Refai (Jordan)
12:10-12:20 (219)	Cholesterol and Low -Density Lipoprotein in Coronary Heart Disease	Firas Y. Okkeh (Jordan)
12:20:12:50 (220)	Vitamin D And Autoimmunity, The Case Of Juvenile Idiopathic Arthritis	Prof.Hassan Vatanparast (Canada)
12:50-13:10 (221)	Voice Restoration Alternatives Post Total Laryngectomy.	Zaidan Khamaiseh, PhD (Jordan)
13:10-13:20 (222)	Assessment of Anthropometric Measurements, Fat Intake, And The Inflammatory Markers in Jordanian Women With Preeclampsia	Rana Mousa Al-Zubi, Bsc Nut. Eng (Jordan)
13:20-13:30 (223)	Association Between Vitamin D Deficiency And Hypothyroidism	Sana'a .M.Al-Momani (Jordan)
13:30-14:30	Lunch Break	

Session title:	**Allied Medicine: Medical Laboratory Sciences and Biomedical Technology**
Hall	**Hall A1 (Dead Sea 1)**
Moderatos:	*Col. Saad AL- Faoury, Ret. Brig. Gen. Mohammad Abu Goush, PhD Ayman Abu Awad.*

Time	Presentation title	Speaker (country)
14:30 – 14:50 (224)	WT1 and P53 in The Context of Hematological Malignancies	Mohammad Bani Ahmad, PhD (Jordan)
14:50-15:00 (225)	Influence of Coproporphyrinogen Oxidase 4 Polymorphism on Urinary Biomarkers of Dental Mercury Exposure in Patients With Amalgam Fillings	Saad Alfawaeir (PhD) (Jordan)
15:00-15:10 (226)	An Evaluation of the Anti-Proliferative and Pro-Apoptotic Properties of Nigella Sativa	Rima Nserat (Jordan)
15:10-15:20 (227)	Traditional Medical Use of Mylabris Calida (Pallas, 1782) in Jordan (Coleoptera: Meloidae)	Renad M. Al Zou'bi (Jordan)
15:20-15:30 (228)	Anemia Among Pregnant Women	Malik Mohammad Al-batikhi MLT (Jordan)
15:30-15:40 (229)	The Influence of Cigarette Smoking in Serum Liver Enzymes	Ibrahim AL-yousef (Jordan)
15:40-15:50 (230)	The Electrical Current And The Time in Biphasic Truncated and Damped Sinusoidal Defibrillator Wave Forms at The Same Energy	Eng. Abdulrahiem Taamneh (Jordan)
15:50-16:00 (231)	The Effect of Low Quality Consumables on Infusion and Syringe Pumps	Sager K. Al-Smadi (Jordan)
16:00-16:10 (232)	The Advance Prosthesis for Upper Limbs Amputees in Jordan Royal Medical Services	Ghazi Muhsen Abdel-Qader Alamrat (Jordan)
16:10-16:20 (233)	Treatment of Congenital Idiopathic Club Foot Deformity Using Kinesio-Tape.	Ahlam H. Kraishan BSC PT (Jordan)
16:20-16:30 (234)	The Activity Level Examination for Below Knee Amputees Using Below Knee Prosthesis	Maha.T. Ghnaimat (Jordan)
16:30-17:00	Coffee Break	

Session title:	**Allied Medicine: Physiotherapy and Occupational Therapy**
Hall	**Hall A1 (Dead Sea 1)**
Moderatos:	*Captain Saed AL-Smady, Ret. Col. Abdeen ALMhasneh, PhD Salameh AL-Dajeh.*

Time	Presentation title	Speaker (country)
17:00-17:30 (235)	Latest advances in Spinal Cord Injury Rehabilitation Management.	Prof. Chitra Kataria (India)
17:30-17:50 (236)	Advance Technology (CAD CAM system) in Prosthetics and Orthotics	Walid M Dameh, Diploma (Jordan)
17:50-18:20 (237)	Telerehabilitation solutions for community Based Rehabilitation of Spinal Cord Injury Persons	Prof. Chitra Kataria (India)
18:20-18:30	Discussion	

Session title:	**Dentistry- Periodontology**
Hall	**Hall A2 (Dead Sea 2)**
Moderatos:	*Dr.Yehya Draidi ,Dr. Aref EL-Momani , Dr. Dafi Taani*

Time	Presentation title	Speaker (country)
09:00-09:30 (238)	Management of Acute Conditions and Emergencies in Periodontics (part I)	Dr. Tariq Javed (USA)
09:30-10:00 (239)	Management of Acute Conditions and Emergencies in Periodontics (part II)	Dr. Tariq Javed (USA)
10:00-10:30 (240)	Intentional Replantation: Is it still a valid treatment option?	Dr. Mohammad Hammad (Jordan)
10:30:11: 00 (241)	A new approach to Camouflage patients with Class III malocclusion	Dr. Ahmad Al-Tarawneh (Jordan)
11:00- 11:30	Coffee Break	

Session title:	**Dentistry- Periodontology**
Hall	**Hall A2 (Dead Sea 2)**
Moderatos:	*Dr. Abeer Alkreisat , Dr. Reem Dababneh ,Dr. Riyad AL Habahbeh*

Time	Presentation title	Speaker (country)
11:30-12:00 (242)	Periodontal Surgery To Enhance And Support Restorative Dentistry/Prosthodontics, Ridge Augmentation, Smile Enhancement (part I)	Dr. Tareq Javed (USA)
12:00-12:30 (243)	Periodontal Surgery To Enhance And Support Restorative Dentistry/Prosthodontics, Ridge Augmentation, Smile Enhancement (part II)	Dr. Tareq Javed (USA)
12:30-13:00 (244)	Application of Digital Technology in Prosthodontics	Dr. Sandra Kamel Al Tarawneh (Jordan)
13:00-13:15 (245)	The Use of Direct Composite Restorations for Management of Generalized Tooth Surface Loss (TSL), Loss of Vertical Dimension of Occlusion and TMJ click-ing.	Dr. Nader Masarwa (Jordan)
13:15:13:30 (246)	Oral Health Status in Jordanian Children below the age of 16 years attending Oral Dental Health Clinic at Prince Rashid Military Hospital	Dr. Eman Hussein Hammouri (Jordan)
13:30-14:30	Lunch Break	

Scientific Program

Session title:	**Dentistry- Maxillofacial Surgery**
Hall	**Hall A2 (Dead Sea 2)**
Moderators:	*Dr. Zuhair Muhaidat , Dr. Omar AL- Jadid , Dr. Suhad AL- Jundi*

Time	Presentation title	Speaker (country)
14:30-15:00 (247)	Surgical Reconstruction of The Nose in Childhood- A Case Report	Dr. Claudia Hoepner (Germany)
15:00-15:30 (248)	Advanced Surgical Techniques in The Therapy Of Neoplastic Lesions of Parotid And Salivary Glands	Prof.Roberto Becelli (Italy)
15:30-16:00 (249)	Cementation Techniques of Indirect Veneers Fixed Detachable Implant Prostheses; From Planning To Long-Term Maintenance	Dr. Mohammad Al-Rababa'ah (Jordan)
16:00-16:30 (250)	Distraction Osteogenesis of The Maxilla And The Mandible - Current Issue (Part I)	Dr. Claudia Hoepner (Germany)
16:30-17:00	Coffee Break	

Session title:	**Dentistry- Maxillofacial Surgery**
Hall	**Hall A2 (Dead Sea 2)**
Moderators:	*Dr. Zuhair Muhaidat , Dr. Ahmad AL- Tarawneh ,Dr. Mansour AL Qudah*

Time	Presentation title	Speaker (country)
17:00 – 17:30 (251)	Distraction Osteogenesis of The Maxilla and The Mandible - Current Issue (Part II)	Dr. Claudia Hoepner (Germany)
17:30-18:00 (252)	The Use Of Botulinum Toxin A(Botox) in Pediatric Dentistry	Dr. Maan Y Alfar (Jordan)
18:00- 18:15 (253)	Sedation in The Clinic: Challenges for The Pediatric Dentist	Dr. Enas Fawwaz Othman (Jordan)
18:15-18:30 (254)	Periodontal Disease in Military Aviators	Dr. Manal Abu Al Ghanam (Jordan)

Session title:	**Endocrinology**
Hall	**Hall B (Mount Nebo 1)**
Moderators:	*Dr. Abdelkarim Khawaldeh ,Dr. Omar Malkawi, Dr. Fares Haddad*

Time	Presentation Title	Speaker (country)
09:00-9:30 (255)	Diabetes and The Risk of Malignancy	Dr. Paul Jennings (UK)
09:30-09:50 (256)	Management of Sub Clinical Hypothyroidism in Pregnancy	Dr. Dina Zaqa (Jordan)
09:50-10:20 (257)	Latest Updates in Management of NASH in Diabetes	Dr. Paul Jennings (UK)
10:20-10:40 (258)	Endocrine Causes of Osteoporosis	Dr. Dina Zaqa (Jordan)
10:40-11:00 (259)	NET, Latest Updates	Dr. Ali Alzu'be (Jordan)
11:00-11:30	Coffee Break	

Session title:	**Adult Cardiology**
Hall	**Hall B (Mount Nebo 1)**
Moderators:	*Dr Ayman Odeh, Dr Mohamed Holy, Dr Issa Ghanma, Dr Zeyad Darabaa*

Time	Presentation Title	Speaker (country)
11:30-12:00 (260)	TAVI in the Era of Intermediate Patients	Dr. Ulrich Gerckens (Germany)
12:00-12:20 (261)	Atrial Fibrillation: Current Management	Dr. Yahya Badaineh (Jordan)
12:20-12:50 (262)	TAVI in Bicuspid Anatomies Sizing and Implantation Technique	Dr. Ulrich Gerckens (Germany)
12:50-13:10 (263)	Supraventricular Tachycardia (SVT)	Dr. Munir Zaqqa (Jordan)
13:10-13:30 (264)	Early Experience With TAVI at QAHI	Dr. Abdalla Omeish (Jordan)
13:30-14:30	Lunch Break	

Session title:	**Congenital Cardiology**
Hall	**Hall B (Mount Nebo 1)**
Moderators:	*Dr. Abdel Fatah Abohaweleh, Dr.Fakhri Alhakim, Dr. Awni Madani*

Time	Presentation Title	Speaker (country)
14:30-15:00 (265)	Pulmonary Valve Implantation In Small And Large Right Ventricle Outflow	Prof. Alain Friasse (UK)
15:00-15:30 (266)	Primary Percutaneous Coronary Intervention In Acute ST-Elevation MI:Strategy Management In Patients With Multi vessle Disease Non-Culprit Lesions	Dr. Hatem Abbadi (Jordan)
15:30-16:00 (267)	Interventional Treatment Of Paravalvular Leak	Prof. Alain Friasse (UK)
16:00-16:15 (268)	Stenting Of Coarctation, State Of The Art, Jordanian Experience	Dr. Majdi Jaafreh MD (Jordan)
16:15-16:30	Discussion	
16:30-17:00	Coffee Break	

Session title:	**Adult and Congenital Cardiac Surgery**
Hall	**Hall B (Mount Nebo 1)**
Moderators:	*Dr. Moa'ayad Al-Nasser, Dr. Yousef Zureikat, Dr. Basel Harahsheh*

Time	Presentation title	Speaker (country)
17:00-17:20 (269)	Minimal invasive Mitral Valve Surgery	Professor Joerg Seeburger (Germany)
17:20-17:50 (270)	RE-Implantation of the Right Coronary Artery, Our Experience at QAHI	Dr. Saad Jaber (Jordan)
17:50-18:20 (271)	ALCAPA, keeping the growth potential of the coronaries	Dr.Yousef Zureikat (Jordan)
18:20-18:30 (272)	Management of Residual Ventricular Septal Defect post-Surgical Repair	Dr. Zeid Makahleh (Jordan)

Session title:	**Anesthesia and ICU**
Hall	**Hall C (Mount Nebo 2)**
Moderators:	*Dr.Ali Obeidat, Dr.Islam massad, Dr. Muneer Aldougom*

Time	Presentation title	Speaker (country)
9:00-9:30 (273)	Fluid Responsiveness; An Update.	Dr. Ghazi Aldehayat (Jordan)
9:30-9:50 (274)	Simulation in Anesthesia	Dr. Ali Obeidat (Jordan)
9:50-10:20 (275)	Airway Trauma	Dr. Peter Groom (UK)
10:20-10:40 (276)	Stellate Ganglion Block for Complex Regional Pain Syndrome in Upper Limb. Experience At Jordan University Hospital	Dr. Abdelkarim Al owedi Al abadii (Jordan)
11:00- 11:30	Coffee Break	

Session title:	**ICU**
Hall	**Hall C (Mount Nebo 2)**
Moderators:	*Dr.Feras Hawwari, Dr. Hussein Shalan*

Time	Presentation title	Speaker (country)
11:30-11:55 (277)	ECMO in ICU setting	Prof. Pinar Zeyneloglu (Turkey)
11:55-12:20 (278)	Update on Management of Sepsis	Dr. Ayman Soubani (USA)
12:20-12:45 (279)	Brain Death & Donor Managment	Prof. Pinar Zeyneloglu (Turkey)
12:45-13:05 (280)	Intensive Care,Year in Review	Dr. Hussein Shalan (Jordan)
13:05-13:30 (281)	ARDS What works and what does not?	Dr. Ayman Soubani (USA)
13:30-14:30	Lunch Break	

Scientific Program

Session title:	**Anesthesia and ICU**
Hall	**Hall C (Mount Nebo 2)**
Moderators:	*Dr. Hayel Gahraibeh, Dr. Hussein Krisha, Dr. Yaser Algoul*

Time	Presentation Title	Speaker (country)
14:30-15:00 (282)	Airway Management in Dental Abscess	Dr. Peter Groom (UK)
15:00-15:20 (283)	Anesthesia for Laparoscopic Surgery	Dr. Hayel Gharaibeh (Jordan)
15:20-15:45 (284)	Smoking Sessation Program	Dr. Feras Hawwari (Jordan)
15:45-16:00 (285)	Comparative Analysis of Adding Midazolam to Plain Bupivacaine During Wound Infiltration in Abdominal Surgery, Our Experience.	Dr. luai Aldaklalah (Jordan)
16:00-16:10 (286)	Low Dose Intravenous Dexamethasone for Pain Relief After Discectomy.	Dr. wesam khraisat (Jordan)
16:10-16:20 (287)	Early Versus Late Tracheostomy in ICU	Dr. Qasim khamaiseh (Jordan)
16:20-16:30 (288)	Hypothermic Cardiac Surgery; Pros And Cons	Dr. Ashraf Fadel Moh'd (Jordan)
16:30- 17:00	Coffee Break	

Session title:	**Free Paper Session**
Hall	**Hall C (Mount Nebo 2)**
Moderators:	*2nd lt. Malek Al-Zgoul. Dr. Hussein Krisha*

Time	Presentation Title	Speaker (country)
17:00-17:15 (289)	Age and Gender as Independent Parameters of Speed of Recovery After Adult Open Heart Surgery	Dr.Odai Al-Momani (Jordan)
17:15-17:30 (290)	Cardiopulmonary Bypass (CPB) Duration As A Determinant For The Need Of Inotropes And Vasopressors Post Open Heart Surgery	Dr.Qais Alqusus (Jordan)
17:30-17:45 (291)	Is There A Diagnostic Test Of Dysarthria For Arabic Speakers?	Dr. Dua Qutishat (Jordan)
17:45-18:00 (292)	The Comparison Between Using Ankle Foot Orthosis (AFO) Versus Elastic Wrap Bandaging In Management Of Foot Drop In Sub Acute Cerebro- Vascular Accident (CVA)	Da'ad Al-Thabateh PT (Jordan)
18:00-18:10 (293)	Treatment Of Planter Fasciitis Using Therapeutic Kinesio-Tape	Hasan Yousef Mohammed Almoghrabi (Jordan)
18:10-18:20 (294)	Clinical Services in GJU Vision Rehabilitation Centre: A Profile of the Service Users.	Yuse Qutishat (Jordan)
18:20-18:30 (295)	The Concentrations Of Bioelements in The Hair Samples Of Jordanian Children Who Stutter	Mazin Alqhazo (Jordan)

Session title:	**OBGYN Session I**
Hall	**Hall D (Petra 1)**
Moderators:	*Dr. Ghalib Al-Taieb , Dr. Abdelmane Slemat , Dr. Fahim Zayed*

Time	Presentation Title	Speaker (country)
09:00-09:25 (296)	Recurrent Miscarriage - Old Problem- New Ideas	Prof. Lesley Regan (UK)
09:25-09:50 (297)	Adolescent Health - An Investment for Our Future	Dr. Hani Fawzi (UK)
09:50-10:15 (298)	Treatment Options for Therapy Resistant Pelvic Pain	Dr. Hans- Rodulf Tinneberg (Germany)
10:15-10:40 (299)	Polycystic Ovary Syndrome, A Frequent Condition With An Inappropriate Name	Prof. Philippe Bouchard (France)
10:40-11:00 (300)	"The Diagnostic And Practical Utility Of DNA Fragmentation in The Management of Unexplained And Male Factor Infertility"	Prof. Jonathan Ramsay (UK)
11:00- 11:30	Coffee Break	

Session title:	**OBGYN Session II**
Hall	**Hall D (Petra 1)**
Moderators:	*Dr. Hasan Malkawy ,Dr. Mohammad Madany, Dr. Sabry Hamzeh*

Time	Presentation Title	Speaker (country)
11:30-12:00 (301)	Human Rights And Women's Health In The 21st Century	Prof. Lesley Regan (UK)
12:00-12:30 (302)	Education Leadership - A Road Map	Dr. Hani Fawzi (UK)
12:30-13:00 (303)	Surgical Strategies For Deep-Infiltrating-Endometriosis Involving The Bowel	Dr. Hans- Rodulf Tinneberg (Germany)
13:00-13:30 (304)	Hyperprolactinemias	Prof Philippe Bouchard (France)
13:30-14:30	Lunch Break	

Session title:	**OBGYN Session III**
Hall	**Hall D (Petra 1)**
Moderators:	*Dr. Mahmoud Dabbas , Dr. Abdel Rahman AlBashir , Dr.Nagham Abo Shagrah*

Time	Presentation title	Speaker (country)
14:30-14:55 (305)	Insights Into Fetal Growth Restriction	Dr. Osama Habayeb (Jordan)
14:55-15:20 (306)	Management of Poor Responders in IVF: Is There Anything New?	Dr.Ayman Smady (Jordan)
15:20-15:45 (307)	Adenomyosis in Infertility	Dr khaldoun Khamaiseh (Jordan)
15:45-16:10 (308)	The Hype and Hope of Genomics in Oncology	Dr. Sana Alsokhon (Jordan)
16:10-16:30 (309)	Assessment Of The Histological Outcomes Of Patients With Atypical Squamous Cells Of Undetermined Significance On Cervical Pap Smears	Dr Ehab Al-Rayyan (Jordan)
16:30-17:00	Coffee Break	

Session title:	**OBGYN Free Papers**
Hall	**Hall D (Petra 1)**
Moderators:	*Dr. Zyad shraydeh , Dr. Adnan Abo Omar , Dr. Morad Momani*

Time	Presentation title	Speaker (country)
17:00-17:15 (310)	Management of Fibroid in Resource Limited Settings.	Dr. Bassam Nusair (Jordan)
17:15-17:30 (311)	Sexual Dysfunction Prevalence Among Jordanian Females.	Dr. Basel khresat (Jordan)
17:30 – 17:45 (312)	An Overview of Prenatal Invasive Procedures Done at The Royal Medical Services (Jordan) Between The Years 2013-2017	Dr. Omar Taso (Jordan)
17:45- 18:00 (313)	Case Presentation of Huge Uterine Fibroid Imitating Malignancy	Dr. Omar Alelwan (Jordan)
18:00-18:15 (314)	The Role Of Hysteroscopy in Enhancement of Pregnancy Outcomes With Unexplained Recurrent Infertility	Dr. Mothanna Nazmi Nawafleh (Jordan)
18:15-18:30 (315)	Repetitive Zona Pillucida Splitting(Dysmorphism) Causing ICSI Procedure Failure In An Infertile Patient After Three Successive IVF Trials, Very Rare Case Report	Dr. Mitri Rashed (Jordan)

Scientific Program

Session title:	**Facial Aesthetic Surgery**
Hall	**Hall F (Wadi Rum 1)**
Moderatos:	*Dr. Leo Klein, Dr.Khaldoun Hadadden, Dr Mohammad Abu AlSamen*

Time	Presentation Title	Speaker (country)
09:00-09:25 (316)	Modern Facelift, High SMAS Facelift With Simultaneous Lipofilling	Prof Bryant A. Toth (USA)
09:25-09:45 (317)	Aesthetic Considerations in The Management of Facial Trauma	Dr. Mutaz Al-Karmi (Jordan)
09:45: 10: 10 (318)	Facial Surgery in The Subperios-teal Plane	Prof. Bryant A. Toth, (USA)
10:10:10:30 (319)	Open Rhinoplasty (30) Years' Experience	Dr. Ghazi Al Zaben (Jordan)
10:30: 10:55 (320)	Blepharoplasty: Avoiding Complications In Lower Eyelid Surgery	Prof. Bryant A. Toth (USA)
10:55-11:00	Discussion	
11:00- 11:30	Coffee Break	

Session title:	**Plastic & Reconstructive Surgery**
Hall	**Hall F (Wadi Rum 1)**
Moderatos:	*Prof. Bryant A. Toth, Dr. Mutaz Al-Karmi, Dr. Khaldoun Al-Abbadi*

Time	Presentation Title	Speaker (country)
11:30-12:00 (321)	The Current Concept of Burns Injuries Management in the Czech Republic	Dr. Leo Klein (Czech Republic)
12:00-12:10 (322)	Is Cleft Care Improving? Presentation of Our Cleft Unit And Centralization of Cleft Care at The Royal Jordanian Rehabilitation Center	Dr. Mohammed Nayef AL-Bdour (Jordan)
12:10-12:40 (323)	Photography in Plastic Surgery-Can You Believe What You See?	Prof. Bryant A. Toth, (USA)
12:40-12:50 (324)	Cleft Lip Management Protocol at The Royal Jordanian Rehabilitation Center: Four Years Retrospective Analysis	Dr. Khalid Ali El-Maaytah (Jordan)
12:50-13:20 (325)	Distraction of The Midface	Prof. Bryant A. Toth, (USA)
13:20-13:30 (326)	Transposition Turnover Adipofacial Flap for Coverage of Dorsal Finger Defects: A Case Report.	Dr. Odai M. Sayegh (Jordan)
13:30-14:30	Lunch Break	

Session title:	**Pediatric Surgery And Pediatric Urology**
Hall	**Hall F (Wadi Rum 1)**
Moderatos:	*Dr.Ahmad Alraymoony; Dr.Mohamad Al Omari; Dr.Hashim Al Momani*

Time	Presentation Title	Speaker (country)
14:30-14:50 (327)	The Jigsaw Puzzle Approach To Obstruction In The Urinary Tract	Prof. Paddy Dewan (Australia)
14:50-15:10 (328)	Advances In Neonatal Surgery	Dr. Ahmad Al Raymoony (Jordan)
15:10-15:30 (329)	Neonatal Intestinal Obstruction	Prof. Hashim Al Momani (Jordan)
15:30-16:00 (330)	Disorders of Sexual Development (Dsd)	Prof.Mohamad Al Omari (Jordan)
16:00-16:30 (331)	Duplex Anomalies In The Paediatric Renal Tract.	Prof. Paddy Dewan (Australia)
16:30-17:00	Coffee Break	

Session title:	**Pediatric Surgery And Pediatric Urology**
Hall	**Hall F (Wadi Rum 1)**
Moderatos:	*Dr. Bassam samawi, Dr. Majed sarayreh, Dr. Zeiad bataineh*

Time	Presentation Title	Speaker (country)
17:00-17:30 (332)	Posterior Urethral Valves - A Misnomer!	Prof. Paddy Dewan (Australia)
17:30-18:00 (333)	Neurogenic Bladder In Pediatrics	Dr. Majed Al Sarayreh (Jordan)
18:00-18:15 (334)	A Novel Nonelectrosurgical Technique For Incising The Pylorus In Laparoscopic Pyloromyotomy	Dr. Zeiad Bataineh (Jordan)
18:15-18:30 (335)	Tubularized Incised Plate Urthoplasty	Dr. Mohamad Dajaa (Jordan)

Session title:	**Breast Surgery**
Hall	**Hall G (Wadi Rum 2)**
Moderatos:	*Yazan Masannat, Ali Oboos, Saleh Horani, Omer Abu-Alaish*

Time	Presentation title	Speaker (country)
09:00-09:20 (336)	Breast cancer surgery from radical mastectomy To extreme conservation	Dr. Yazan Masannat (UK)
09:20-09:35 (337)	Local recurrence of breast cancer	Dr. Ali Oboos (Jordan)
09:35-09:50 (338)	HER 2 new breast cancer	Dr. Saleh Horani (Jordan)
09:50-10:10 (339)	Oncological consideration when planning Immediate breast reconstruction	Dr. Yazan Masannat (UK)
10:10-10:30 (340)	Pleomorphic lobular carcinoma in situ B3 or B 5a	Dr. Yazan Masannat (UK)
10:30-10:45 (341)	Current operative management of breast cancer	Dr. Omar Abu-Alaish (Jordan)
10:45-11:00 (342)	Video session in oncoplastic surgery	Dr. Yazan Masannat (UK)
11:00-11:30	Coffee Break	

Session title:	**Otology &Rhinology**
Hall	**Hall G (Wadi Rum 2)**
Moderators:	*Dr. M. Tawalbeh, Dr. M. Alhiari, Dr. Ahmad Alqudah*

Time	Presentation Title	Speaker (country)
11:30-12:00 (343)	Endoscopic Anatomy of The Ear	Prof. Livio Presutti (Italy)
12:00-12:30 (344)	Endoscopic Treatment of Cho-lesteatoma	Prof. Livio Presutti (Italy)
12:30-12:50 (345)	CSF Leak Repair: Our Experience	Dr. Nabil Shwakfeh (Jordan)
12:50-13:20 (346)	The Value Of Endoscopic Surgery In Stapes Revision Surgery	Prof. Livio Presutti (Italy)
13:20-13:30	Discussion	
13:30-14:30	Lunch Break	

Session title:	**Head And Neck**
Hall	**Hall G (Wadi Rum 2)**
Moderatos:	*Dr. Shawkat Altamimi, Dr. Hassan Alhusban, Dr. Bassam Sharawneh*

Time	Presentation Title	Speaker (country)
14:30-15:00 (347)	TORS for OSA: Up to Date	Prof. Claudio Vicini (Italy)
15:00-15:20 (348)	Surgical Pearls : Head And Neck Surgery	Dr. Omer Alsaraireh (Jordan)
15:20-15:50 (349)	OSA Surgery Failures: How to Address?	Prof. Claudio Vicini (Italy)
15:50-16:20 (350)	New Trends in TORS For Cancer	Prof. Claudio Vicini (Italy)
16:20-16:30	Discussion	
16:30-17:00	Coffee Break	

Session title:	**General ENT**
Hall	**Hall G (Wadi Rum 2)**
Moderators:	*Dr. Eyad ALsafadi, Dr. Khaled ALqudah, Dr. Mefleh ALsarhan*

Time	Presentation Title	Speaker (country)
17:00-17:20 (351)	Approach to the Vocal Folds Paralysis	Dr. Ahmad Alomari (Jordan)
17:20-17:40 (352)	How to Avoid Complications in Endoscopic Sinus Surgery	Dr. Sufian Alnawaiseh (Jordan)
17:40-18:00 (353)	Approach to Laryngeal Mass	Dr. Amjad Altarifi (Jordan)
18:00-18:15 (354)	Comparison of Low and High Computed Tomography Radiation Dose in Sinusitis	Dr. Raed Akayleh (Jordan)
18:15-18:30 (355)	Horizontal Canal Benign Paroxysmal Positional Vertigo With Canal Conversion; Case Presentation	Dr. Sawsan Abuzaid (Jordan)

Under the Patronage of Director General of the Royal Medical Services Major General Dr Muin Al-Habashneh
Pharmacy Opening Ceremony
9:00- 9:30

9:00-9:02	Royal Anthem
9:02-9:04	Recitation of Holy Quran
9:04-9:10	Speech of The RMS Pharmacy Director: Brig.Gen.Reem Mahadeen
9:10-9:15	Poetic Paragraph
9:15-9:25	Speech of His Excellency RMS Director: Maj.Gen. Muin Al-Habashneh
9: 25-9:28	Video About Pharmacy at Royal Medical Services
9: 28-9:30	Present a Souvenir for His Excellency RMS Director: Maj.Gen. Muin Al-Habashneh

Session title:	**Global Development in Pharmacy Workforce**
Hall	**Hall I (Harraneh1)**
Moderators:	*Prof. Pharm.Abla Bsoul , Pharm, Wafa Al-Nsour, Pharm. Reem Mahadeen*

Time	Presentation title	Speaker (country)
09:30-09:50 (356)	Global Trends Healthcare Workforce Development: The Transformative Agenda For Pharmacy	Prof. Ian Bates (UK)
09:50-10:10 (357)	Easier Said Than Done, Keys To Successful Implementation Of Workforce Development Strategies	Dr. Lina R. Bader (UK)
10:10- 10: 30 (358)	Developing Competencies For Translating Evidence Based Science Education Into Medicines Use Information	Prof. Ian Bates (UK)
10:30-10:50 (359)	How Jordan Can Transform The Pharmacy Workforce And Instill Change In The Region	Dr. Lina R. Bader (UK)
10:50-11:00	Discussion	
11:00- 11:30	Coffee Break	

Session title:	**The Provision of Innovative Pharmaceutical Care Services**
Hall	**Hall I (Harraneh1)**
Moderators:	*Prof. Pharm.Karem Al-Zoubi, Pharm. Reem Al-Qutob, Pharm. TaghreedHabashneh*

Time	Presentation title	Speaker (country)
11:30-11:55 (360)	Improving Patient Care Through Technology	Prof. Janet P. Engle (USA)
11:55-12:15 (361)	Quality Assurance in Pharmacy Practice	Prof. Abeer M. Al-Ghananeem (Jordan)
12:15 -12:40 (362)	Innovative Ambulatory Care Pharmacy Services	Prof. Janet P. Engle (USA)
12:40:13:00 (363)	Innovative Medicines And Pharmacy Management Services	Mohanad M. Odeh Pharm.PhD. (Jordan)
13:00-13:20 (364)	French Medical Concept Concerning The Medical Support Equipment In Operation	Col.Pharm sebastien Bardot
13:20-13:30	Discussion	
13:30-14:30 Roche (365)	Pharmacy Lunch Symposium Assessing the Value of Oncology Drugs	Dr. Carlos Rubio Terres (Spain)

Session Title:	**The Local Horizons for Pharmaco-Specialisation**
Hall	**Hall I (Harraneh1)**
Moderators:	*Dr. Loay Salhieh,Pharm. Khalil Ma'ali, Pharm. Jehan Sweis*

Time	Presentation Title	Speaker (country)
14:30-14:50 (366)	Nutrition Therapy Management in Intensive Care Unit	Moh'dnour Mahmoud Baniyounes. Msc.Clin. Pharm (Jordan)
14:50-15:10 (367)	Radio pharmacists Role in RMS& Jordanian Nuclear Projects.	Ala' Abdul Jaleel Khwaj Bcs.Pharm (Jordan)
15:10-15:20 (368)	Role of Pharmacist in Jordanian Pharmacovigilance reporting system: a national need to improve drug safety	Prof. Sameh Al-Zubiedi (Jordan)
15:20-15:30 (369)	Hospital pharmacy medication reconciliation practice in Jordan: perceptions and barriers	Dr Khawla Abu Hammour (Jordan)
15:30-15:40 (370)	Updates on Pharmaceutical Care and The Medication Management Review Service in Jordan	Prof. Iman Amin Basheti (Jordan)
15:40-15:50 (371)	Economics of Hepatitis B in Al-Hussein Hospital/ Royal Medical Services	Jelnar Alkalaldeh Msc.Clin.Pharm (Jordan)
15:50-16:00 (372)	pharmacy and therapeutics committees in Jordanian hospitals: a survey of structure and activities	Somaya Alshareef Bcs.Pharm (Jordan)
16:00-16:10 (373)	Experience of Private Sector in Establishing Poison Information Center Challenge and Promise	D. Aida Al-Fwadleh Bcs.Pharm (Jordan)
16:10-16:20 (374)	A Cross Sectional Study Of Knowledge, Attitudes And Practices Among Jordanian Nurses Towards Pharmacovigilance In Amman	Mais Tawfiq Krishan Bcs.Pharm (Jordan)
16:20-16:30	Discussion	
16:30-17:00	Coffee Break	

Session title:	**Pharmacy Free Papers Session**
Hall	**Hall I (Harraneh1)**
Moderators:	*Dr.Adnan Massadeh ,Pharm Mohanad Al-hajj, Pharm.Samar khadiri*

Time	Presentation Title	Speaker (country)
17:00-17:10 (375)	Analysis of Antineoplastics, Immunomodulators, Antibiotics and Analgesics Adverse Drug Reactions Reports Submitted to the Pharmacovigilance Database in Jordan	Adel Salem Batarseh Msc.Clin. Pharm (Jordan)
17:10-17:20 (376)	Anti-D versus Immunoglobulin-G for the Treatment of Acute Immune Thrombocytopenia in Children: A 10-Year Palestinian Experience	Mohammed K. El-Habil. Bcs.Pharm (Palestine)
17:20-17:30 (377)	Vitamin D is a Potential Antidepressant in Psychiatric Outpatients	Prof. Khalid K Al-Ani (Jordan)
17:30-17:40 (378)	An Update on Herbal Remedies used in Ethnomedicine, Ethnobotany and Phytotherapeutic by Jordanian Patients, Herbalists and Pharmacists	Associate prof.Reem Issa (Jordan)
17:40-17:50 (379)	Perceptions of teratogenicity	Wejdan Shroukh Msc Pharm (UK)
17:50-18:00 (380)	Prevalence and Risk Factors of Anemia among Ever-married Women Aged 15-49 Years in Jordan: Results from the 2012 Jordan Population and Family Health Survey (JPFHS)	Assistant prof. Rasha Arabyat (Jordan)
18:00-18:10 (381)	Impact of obesity on clinico-pathologic characteristics and molecular subtypes in pre- and postmenopausal breast cancer patients	Assistant Prof. Nehad M. Ayoub (Jordan)
18:10-18:20 (382)	Impediments to Use of Oral Contraceptives among Refugee Women in Camps, Jordan	Associate prof. Sanaa Bardaweel (Jordan)
18:20-18:30	Discussion	

Scientific Program

Session title:	**Neuro rehabilitation**	
Hall	**Hall J (Harraneh 4)**	
Moderators:	*Prof. Sabahat Wasti, Dr. Hisham Sayegh , Dr. Ali Al Hadeed*	
Time	Presentation Title	Speaker (country)
09:00-09:25 (383)	Concepts in Stroke Rehabilitation	Mr. Faraz Jeddi (UK)
09:25-09:45 (384)	Electrodiagnosis in Neurorehabilitation	Prof Ziad Hawamdeh, (Jordan)
09:45-10:10 (385)	Concepts in TBI Rehabilitation	Mr. Faraz Jeddi (UK)
10:10- 10: 40 (386)	The Growing Trend Of Early Rehabilitation In Neurorehabilitation	Dr. Sabahat Wasti, (UK)
10:40-11:00 (387)	Interventional Management Of Handicapping Spasticity	Prof. Abdul Karim Msaddi (UAE)
11:00:11:30	Coffee Break	

Session title:	**Urology**	
Hall	**Hall J (Harraneh 4)**	
Moderators:	*Dr. Saed Ajloni , Dr.Abdulnaser Shunigat, Dr.Muhanned Al-Naser*	
Time	Presentation title	Speaker (country)
11:30-11:50 (388)	Laparoscopic Renal Surgery	Prof. Mohammed AlGhazo MD, (Jordan)
11:50-12:10 (389)	Updates in Radical Cystectomy	Adnan Abu Qamar MD, (Jordan)
12:10-12:30 (390)	Role of Surgery in Prostate Cancer	Firas Al-Hammouri MD,(Jordan)
12:30:12:40 (391)	Approaches for Surgery at Prince Hussain Urology Center	Awad Alkaabneh, MD (Jordan)
12:40-12:55 (392)	Management of post PCNL Bleeding, Our Experience in Prince Hussein Urology Center	Mohannad Al Naser,MD (Jordan)
12:55-13:05 (393)	Post Radical Cystectomy management, a comparative study assessing the clinical effectiveness of ERAS and non-ERAS protocol	Ghaith Qsous, MD (Jordan)
13:05-13:30	Discussion	
13:30-14:30	Lunch Break	

Session title:	**General Rehabilitation**	
Hall	**Hall J (Harraneh 4)**	
Moderators:	*Mr. Faraz Jedi, Dr. Abdel Fattah AL Worikat, Dr. Ibrahim Amayreh*	
Time	Presentation Title	Speaker (country)
14:30-14:50 (394)	Mechanical Low Back Pain Rehabilitation and Management	Hisham Sayegh, MD (Jordan)
14:50-15:10 (395)	Cerebral Palsy Rehabilitation	Dr Abdel-Fattah AL-Worikat (Jordan)
15:10-15:30 (396)	Role of Botulinum toxin in Spasticity	Ibrahim Amayreh, MD (Jordan)
15:30-15:50 (397)	Prolonged motor stall after Magnetic Resonant Imaging (MRI) scan in Baclofen pump, presented with withdrawal symptoms: a case report	Dr. Srinivasa Chakravarty Budithi (UK)
15:50-16:10 (398)	Improving Access to Assistive Technology	Dr. Ali Rjoub (Jordan)
16:10-16:20 (399)	Epibole causing delayed wound healing in trochanteric pressure ulcers in spinal cord injury patients	Moh'd Rami Al Ahmar, MD (Jordan)
16:20-16:30 (400)	Hyperkeratosis causing delayed healing of pressure ulcers in spinal cord injury patients : A case report	Bara'ah Esa Alshagoor, MD (Jordan)
16:30-17:00	Coffee Break	

Session title:	**Free Paper Session (Dentistry)**	
Hall	**Hall J (Harreneh 4)**	
Moderators:	*Dr. Zaid Al Zoubi, Dr Waddah El-Naji, Dr. Mohammed Al Khawaldeh*	
Time	Presentation Title	Speaker (country)
17:00-17:10 (401)	Can we avoid complicated treatment plan options in orthodontic treatment?	Raed Helal Alrbata, DDS (Jordan)
17:10-17:20 (402)	Cervical cystic lymph node metastasis: the potential for misdiagnosis	Ahmad A. Al Share, DDS (Jordan)
17:20-17:30 (403)	Mucositis under Maxillary All-on-4 Implant-Fixed Prostheses	Ala' Ersheidat, DDS (Jordan)
17:30-17:40 (404)	Interceptive orthodontics in Preadolescent patients.	Dr. Aseel Aref Al-Momani, DDS (Jordan)
17:40-17:50 (405)	A novel in vivo method to evaluate trueness of digital impressions	Emad Ali Albdour, DDS (Jordan)
17:50-18:00 (406)	Flap Vs. flapless dental implant surgical technique: A comparative prospective study	Dr. Ahmad Mustafa Altarawneh, DDS (Jordan)
18:00-18:10 (407)	Peri implantitis, prevention and management	Feras AL Qatarneh, DDS (Jordan)
18:10-18:30	Discussion	

Session title:	**Sport Orthopedics**	
Hall	**Hall K (Harraneh 5)**	
Moderators:	*Mohammed Dweri MD, Firas Alibraheem MD, Kamel Afifi MD*	
Time	Presentation Title	Speaker (country)
09:00-09:20 (408)	Arthroscopic Transosseous RC Repair is it the Future?	Alessandro Castagna,MD (Italy)
09:20-09:35 (409)	MPFL Reconstruction	Malek Ghneemat ,MD (Jordan)
09:35-09:45 (410)	Shoulders and Elbows that Need Rescue, Replacement and Fixation at King Hussein Medical Center	Ghaith Abou-Nouar ,MD (Jordan)
09:45: 10:00 (411)	Multidirectional Shoulder Instability: Myth or Reality?	Alessandro Castagna,MD (Italy)
10:00-10:15 (412)	ACL Revesion	Malek Ghneemat ,MD (Jordan)
10:15-10:30 (413)	Massive RC Tears: Treatment Options	Alessandro Castagna,MD (Italy)
10:30-10:40 (414)	Reverse Shoulder Prosthesis for Acute Fracture	Yousef M. Khair ,MD (Jordan)
10:40 -10:50 (415)	Shoulder Functional Outcome After Latissimus Dorsi Muscle Transfer And Subscapularis Muscle Release in Children With Obstetrical Brachial Plexus Palsy	Fadi M. AlRousan,MD (Jordan)
10:50-11:00 (416)	Long Term Functional Outcome in Conservatively Vs. Surgically Treated Non-Displaced or Minimally Displaced Acute Scaphoid Fractures	Ayman Mustafa (MD) (Jordan)
11:00- 11:30	Coffee Break	

Session title:	**Spinal Cord Injury Multi-Disciplinary Approach**	
Hall	**Hall K (Harraneh 5)**	
Moderators:	*Dr. S.Budithi, Dr. Raed Wagokh, Dr. (Mohd Rami) Al Ahmar*	
Time	Presentation Title	Speaker (country)
11:30-11:55 (417)	Argument For or Against Early Mobilization In SCI	Dr. Srinivasa Chakravarty Budithi (UK)
11:55-12:20 (418)	How Should Spinal Displacement Be Reduced in Case of SCI?	Prof. Vital Jean-Marc (France)
12:20-12:45 (419)	Physiotherapy Aspect of Early Vs Late Mobilization And Outcomes	Dr. Chitra Kataria (India)
12:45-13:10 (420)	Maximizing Safety in Spine Surgery	Prof. Msaddi Abdul Karim (UAE)
13:10-13:30 (421)	Management of SCI At Spinal Unit, Royal Rehabilitation Centre (RRC), Jordan	Dr (Mohd Rami) Al Ahmar (Jordan)
13:30-14:30	Lunch Break	

Scientific Program

Session title:	**Surgical Spine Session**
Hall	**Hall K (Harraneh 5)**
Moderators:	*Prof. Abdul Karim Msaddi ,Raed Wajouk Md, Alessandro Castagna MD*

Time	Presentation Title	Speaker (country)
14:30-14:50 (422)	Interest Of Lumbar Modic 1 Signal	Prof. Vital Jean Marc (France)
14:50-15:05 (423)	Vertebral Augmention	Dr. Al-Bishawi Salah (Jordan)
15:05-15:25 (424)	Anterior Surgery Of Cervical Herniation Is It Reasonable In One Day Care?	Prof. Vital Jean Marc (France)
15:25-15:45 (425)	Cervical Spondylosis	Dr.Al-Bishawi Salah, FRCS,FRCS SN (Jordan)
15:45-16:00 (426)	Spinal And Pelvic Growth Cartilages: Clinical Applications	Prof. Vital Jean Marc (France)
16:00-16:15 (427)	Clinical Relevance Of Cement Leakage After Radiofrequency Kyphoplasty Vs. Balloon Kyphoplasty And Diagnostic Accuracy Of Fluoroscopy, Radiography And Computed Tomography In Detecting Cement Leakage In Kyphoplasty	Dr. Hans-Joachim Riesner (Germany)
16:15-16:30 (428)	Arabspine Diploma	Prof. Abdul Karim Msaddi (UAE)
16:30-17:00	Coffee Break	

Session title:	**General Orthopedics**
Hall	**Hall K (Harraneh 5)**
Moderators:	*Malek Ghneemat MD, Jean Marc Vital MD*

Time	Presentation title	Speaker (country)
17:00-17:20 (429)	Total Knee Replacement for Gonarthrosis After Fractures Around the Knee	Prof. Yves Catonne (France)
17:20-17:40 (430)	Iatrogenic Ulnar Nerve Injury in Pediatric Supracondylar Humerus Fracture	Kamel Afifi,MD (Jordan)
17:40-17:50 (431)	Dual Energy CT as Innovative Technique for the Diagnosis of Fragility Fractures of the Sacrum - a Retrospective Study with Gold Sandard MRI	Hans-Georg Palm,MD (Germany)
17:50-18:00 (432)	The Sinus Tarsi Approach (STA) for Displaced Intra-Articular Calcaneal Fractures(DIACFs).	Abdullah Odah Alkhawaldah, MD (Jordan)
18:00-18:10 (433)	Aneurysmal Bone Cyst (ABC) of the Spine…..Case Presentation and Discussion	Asem Almajali MD (Jordan)
18:10-18:20 (434)	Difference of Surgical Fixation in Humerus Condyles and Epicondyles Fractures in Pediatric Age	Mutaz Ghabashneh MD (Jordan)
18:20-18:30 (435)	Incidence Rate of Surgical Site Infection in Orthopedic and Trauma Department at Royal Rehabilitation Center	Mohammad Aziz Al-Alwan, MD (Jordan)

Session title	**Field Medicine**
Hall	**Hall L (Harraneh6)**
Moderators:	*BG Salem Al-Zawahre, Col. Hussen Al-Dmor*

Time	Presentation Title	Speaker (country)
09:00-09:25 (436)	National Czech Republic Experience In Field Biological Hospital	LTC Michal Kroca (Czech)
09:25-9:40 (437)	Enabling the war fighter through alignment of joint and international medical capabilities across the Middle East Region: the US Central Command Surgeons Office	Col. Jeffrey Calder (USCENTCOM)
9:40-9:55 (438)	National Biosecurity Current :Status And Future Perspective	Dr. Rami AL-Kasawne (Jordan)
09:55-10:25 (439)	International And National Experience In Field Biological Hospital	LTC Michal Kroca (Czech)
10:25-10-40 (440)	The Relationship Between DM and Depression in Primary Care in Northern Jordan.	Dr. Adi Harbi Khasawneh (Jordan)
10:40-10:50 (441)	Using IT To Improve Jordan's Public-Sector Healthcare	Eng.Omar Ayesh (Jordan)
10:50-11:00	Discussion	
11:00- 11:30	Coffee Break	

Session title:	**Prevention is Better Than Cure**
Hall	**Hall L (Harraneh6)**
Moderators:	*Dr. Hussein Abu Zeid, Dr. Eqab abu wendi, Dr. Ghazi sharkas*

Time	Presentation Title	Speaker (country)
11:30-12:00 (442)	Public Health And Preventive Medicine Experience in Oman	Dr. saif Al-Abri (Oman)
12:00-12:15 (443)	Implementation of Antibiotic Stewardship in The German Armed Forces	Lt Col Svenja Liebler (Germany)
12:15-12:30 (444)	Our Experience of Seasonal Influenza H1N1 in RMS	Dr. Hussein Abu Zeid (Jordan)
12:30-12:55 (445)	Infection Control Experience in Oman	Dr. Saif Al-Abri (Oman)
12:55-13:10 (446)	Non-Communicable Disease in Jordan: Prevalence, Trend, Awareness, And Control	Prof. Yousof Kader (Jordan)
13:10-13:20 (447)	Implementation and Evaluation of School Based TD,MMR, Vaccination Program In Military Education School Health Program	Dr. Samir Daradkeh (Jordan)
13:20-13:30	Discussion	
13:30-14:30	Lunch Break	

Session title:	**Orthopedics Arthroplasty**
Hall	**Hall L (Harraneh 6)**
Moderators:	*Prof. Yves Catonne MD, Dr. Jamal Shawbkeh*

Time	Presentation title	Speaker (country)
14:30-14:50 (448)	Surgical Treatment of Mal Unions After Fractures of Tibial Plateau: Osteotomy or Knee Arthroplasty?	Prof. Yves Catonne (France)
14:50-15:05 (449)	Difficulties in Total Hip Replacement for Patients with Osteoarthritis Secondary to Developmental Dysplasia of the Hip Joint	Dr.Jamal Shawabkeh (Jordan)
15:05:15:25 (450)	Total Knee Replacement, 20 Years' Experience in Jordan Hospital	Dr. Kamel Afifi (Jordan)
15:25-15:45 (451)	Failures After Knee Arthroplasty: Revision Procedures	Prof. Yves Catonne (France)
15:45-15:55 (452)	Pediculated Sural Flap for Closure of Soft Tissue Defects Associated with Infection of the Lower Leg	Prof. Arnold Suda (Austria)
15:55-16:10 (453)	Outcome of Two-Stage Revision for the Infected Total Knee	Dr. Jamal Shawabkeh (Jordan)
16:10-16:20 (454)	Ligamentoum Teres as Stabilizer Post Open Reduction Medial Approach for DDH (Royal Medical Services)	Dr. Ahmed Almarzouq (Jordan)
16:20-16:30 (455)	Femoral Head Avascular Necrosis After Treating Developmental Dislocation of the Hip by Pavlik Harness	Dr. Razi Altarawneh (Jordan)
16:30-17:00	Coffee Break	

Session title:	**Spine Neurosurgery**
Hall	**Hall L (Harraneh 6)**
Moderators:	*Amer Shorbaji MD, Nidal Khasawneh MD, Firas Haddad MD*

Time	Presentation title	Speaker (country)
17:00 – 17:20 (456)	Do and Don't in Neuroendoscopy	Dr. AlKhasawneh Nidal, FRCS SN (Jordan)
17:20- 17:40 (457)	Cranial Nerve Compression Syndromes	Dr. Al-Bishawi Salah, FRCS SN (Jordan)
17:40-18:00 (458)	Spinal lipoma- experience at KHMC	Dr. Al Khasawneh Nidal, FRCS SN (Jordan)
18:00-18:15 (459)	Spinal Meningioma-Histopathology & Inference	Dr.Rami AL-Qroom (Jordan)
18:15-18:30 (460)	Foramen Magnum Meningiomas Classification and Surgical Management	Dr. Raed M Aljubour (Jordan)

(2)

New Frontier in Heart Disease: B/P Old Problem - New Opportunities

Rafat Qahoush RN, PhD (USA)

Background: The 2017 American College of Cardiology/American Heart Association (ACC/AHA) Guideline for the Prevention, Detection, Evaluation and Management of High Blood Pressure in Adults provides recommendations for using cardiovascular risk in conjunction with blood pressure levels is an efficient approach to direct pharmacological antihypertensive treatment.

Methodology: Integrative Review. The new ACC/AHA guidelines were developed with nine other health professional organizations and were written by a panel of 21 scientists and health experts who reviewed more than 900 published studies.

Result: The 2017 ACC/AHA guideline:

- All adults recommended for antihypertensive medication by JNC7 (2003) are also recommended for this guideline.
- Additionally, adults with high cardiovascular disease (CVD) risk with SBP of 130 to 139 mm Hg or DBP of 80 to 89 mm Hg and adults 65 years of age with SBP of 130 to 139 mm Hg are recommended for antihypertensive medication.
- Recommends treating SBP/DBP to <130/80 mm Hg for all adults taking antihypertensive medication.

Conclusion

- The current analysis suggests a substantial increase in the prevalence of hypertension.
- The percentage of US adults recommended for antihypertensive medication increased modestly, with nonpharmacological interventions alone being recommended for the majority of US adults with hypertension.
- Additionally, over 50% of US adults taking antihypertensive medication do not meet the SBP/DBP goal of <130/80 mm Hg.
- Given the high predicted CVD risk in this group, a substantial CVD risk reduction benefit should occur with more intensive antihypertensive medication treatment.

Keywords: ACC/AHA 2017 Guideline, Hypertension, Antihypertensive medications.

(3)

Acute Myocardial Infarction (Primary Angioplasty as The Main Modality of Therapy).

Hatem AL-Salaheen Abbadi.MD. (Jordan)

AT QAHI, the last 17 years have seen a move away from thrombolysis as the preferred therapy for reperfusion in ST elevation MI, towards mechanical reperfusion by angioplasty (primary percutaneous coronary intervention – PPCI). The advantages of PPCI are more complete reperfusion, treatment of the underlying coronary disease at the same time and reduced risk of intracranial haemorrhage, hospitalisation is for 2–3 days in uncomplicated cases. The disadvantages are the time taken to perform the procedure. This means that it is the preferred strategy for reperfusion when it can be administered in a timely fashion; regionally this has been agreed as the patient being at the door of the PCI centre within 90 minutes of the initial call for help. At present, almost all cases of ST elevation MI patients are treated with PPCI. Both strategies are most effective when administered promptly. The emphasis should be on speed and accuracy of diagnosis and administration of appropriate treatment.In certain situations, primary PCI is strongly preferred over thrombolytic therapy. This includes primary PCI within 36 hours for patients that develop cardiogenic shock and those with Killip Class III heart failure. There are no situations in which fibrinolytic therapy is preferred over primary PCI unless the patient refuses invasive procedures. Fibrinolytic therapy works best when symptom onset is < 3 hours since fresh thrombus lysis more readily than more organized, subacute thrombus. If symptoms have been present for > 3 hours then primary PCI is preferred.The best outcomes occur when primary PCI is performed with a door-to-balloon time of < 90 minutes and when symptoms onset was < 12 hours. Primary PCI is only indicated when symptoms duration is 12-24 hours (delayed presentation) if severe congestive heart failure, hemodynamic/electrical instability or continued angina is present. Primary PCI is not recommended when symptom onset is more than 12 hours and the patient is asymptomatic.and require skilled multidisciplinary team approach for optimal management.

(4)
Cardiovascular Diseases: The Present and the Future Health Concerns

Manar Nabolsi RN, PhD (Jordan)

Cardiovascular diseases (CVD) are the number one cause of death globally. According to the WHO, over three quarters of CVD deaths take place in low- and middle-income countries, and an estimated 7.4 million people died from coronary heart disease in 2015. Reducing the burden of cardiovascular disease is a public health priority. Cardiovascular diseases risk factors can be prevented by behavioral modifications and cost effective interventions. Currently, most efforts are focused on the advanced diagnostic interventions and treatment of CVD that is very expensive and puts financial burden on the health care system in a low income country such as Jordan. Additionally, most services provided in CVD prevention is for people 40 years and above. The changes in the Jordanian Youth lifestyle and adopting risky behaviors such as smoking, physical inactivity, and unhealthy diet in addition to increased prevalence of obesity puts people at high risks for CVD. The increased prevalence of hypertension and diabetes are factors adding to the burden of diseases. Future effort of health care providers should be directed to primary health care as a comprehensive community risk reduction, particularly targeting the youth. Policy makers and health care providers should be advocate to national interventions in addition to individualized counseling to control CVD risk factors targeting people at high risks at both the primary and secondary level of prevention.

Key words: Cardiovascular disease, Community, Prevention, Risk reduction, Youth

(5)
Cancer Screening Guidelines, American Cancer Society Guidelines for the Early Detection of Cancer.

Rafat Qahoush RN, PhD (USA)

Background
The American Cancer Society (ACS) 2018 annual report for health care professionals summarizes the current ACS cancer screening guidelines, including current recommendations, updates, and guidance related to early cancer detection when a direct recommendation for screening cannot be made.

Methodology: The ACS commissioned a systematic evidence review of cancer screening literature to inform the update and a supplemental analysis of data to address questions related to the screening interval. Formulation of recommendations was based on the quality of the evidence and judgment (incorporating values and preferences) about the balance of benefits and harms.

Result: Breast Cancer: Women should undergo regular screening mammography starting at age 45 y; women aged 45-54 y should be screened annually; women should have the opportunity to begin annual screening between the ages of 40 and 44 y.
Cervix: Pap test for Women, aged 21-29 y; Pap test and HPV DNA test for women aged 30-65
Colon Cancer: Adults aged 45 y and older should undergo regular screening with either a high-sensitivity stool-based test or a structural (visual) exam.
Lung Cancer: Low-dose helical CT for current or former smokers aged 55-74 y in good health with at least a 30-pack-y history of smoking.
Prostate: Men, aged _50 y Prostate-specific antigen test (PSA) with or without digital rectal examination (DRE).

Conclusion: With greater uptake of regular screening, there would be a significant reduction in avoidable cancer deaths.

Keywords
Breast neoplasm; Lung neoplasm; Cervix neoplasm; prostate neoplasm

(6)
Understanding the Personal Meaning of Work for Oncology Nurses

Myrna Doumit, RN PhD (Lebanon)
Joan Such Lockhart, PhD, RN, Samar Nassif, MSN, RN, Nuhad Azoury, MSN , RN

Background: Cancer is increasingly becoming a chronic disease, with patients living longer with complex physical and psychosocial needs that require assistance along the disease continuum.

Over two decades of research provide strong evidence that oncology nurses across the globe experience varying degrees of stress, burnout, and compassion fatigue in their work environments and report symptoms of emotional exhaustion, workplace conflict, overload, issues dealing with death, dying, and patient suffering, and communication challenges with patients and families.

Purpose: While the meaning of work from the perspective of oncology nurses has been investigated globally, this study explored this phenomenon with oncology nurses in a middle eastern country to capture aspects that may be unique to this culture.

Design: Hermeneutic phenomenology was used. Participants included a purposeful sample of 12 female and male oncology nurses employed in adult and pediatric oncology hospital units.
Face-to-face interviews were analyzed according to Diekelmann and Ironside (1998).
Findings: This study yielded a constitutive pattern "Oncology nursing is stressful, satisfying, and unique." Three themes with subthemes included: 1) experiencing stress during death and dying; 2) changing the approach; and 3) needs in the work environment.

Discussion: Nurses reported stressors that affected their morale and self-esteem and culturally-based issues not previously reported. Findings suggested a need for providing workplace support, educational preparation in oncology, and building inter-professional mutual understanding and respect.

Key Words: Phenomenology, oncology nurses, culture

(7)
Developmental Care Approaches and the Neurobehavioral Developmental of Premature Newborns

Nadin M. Abdel Razeq, Ph.D. RN. (Jordan)

Premature birth is the leading cause of death and a primary reason for prolonged hospitalization among newborns. If survived, premature newborns may suffer serious physiologic complications and developmental problems, especially for the brain and the overall neurobehavioral development. Scientific studies showed that the neonatal intensive care environment is far from ideal to support the brain and neurosensory development of premature newborns. Research documented that the implementation of effective developmental care enhances brain structure and function and improves the physiological and behavioral outcomes of the newborns as they move towards adulthood. The purpose of this presentation is to introduce the Newborn's Individualized Developmental Care (NIDCAP) and to summarize research evidence on the critical role of developmental caring on the brain development among premature newborns.

Keywords: Premature, Developmental Care, Neurobehavioral.

(8)
Nurses Knowledge and Perception Regarding Noise in the Neonatal Unit

Shereen Al OtibY, Dr. HalaObiedat , Nisreen Al-Kurdi, RN

Objectives This study well be conducted to determine the level of noise exposure in NICU and to assess the effectiveness of structured teaching program among staff nurses in (NICU) on their knowledge regarding effect of noise on physical, physiological and behavioral responses of preterm.

Methodology: Quasi-experimental method One group Pre-test and Post-test a structured questionnaire about noise knowledge was developed after extensive literature review and validated by the research investigators to measure the knowledge and practice of nurses before and after the teaching program the study consist of 24 nurse and physiotherapy for 8 weeks period, teaching program to raise their awareness of harmful effect of noise on neonate and professionals, data will be coded, SPSS program version 20 will be used for statistical analysis.

Results and Discussion: After educational program most professionals rated noise level as high intense, most of the noise came from equipment and health team members, they reported the most cause of noise is conversation they suggested behavioral modification to decrease level of sound.

Conclusion: There was change in nurses knowledge and practice regarding level of noise they adopted behavioral modification to prevent unnecessary noise, it means instructional session's had an effective role in enhancing both their knowledge and their practice.

(9)

Role of Wound Care Clinic in Improving Patients Care Outcomes : RMS Experience

Amal Ramadneh, RN, Hazem ALazzam, RN, Ziad Tariq Abudari,RN, EmanTarawneh,RN, Sara Sarrairah, RN

Objectives: The purpose of this presentation is to clarify the role of wound care clinic in improving patients care outcomes in royal medical services.

Methodology: Wound care clinic in RMS began working in 2010 to provide excellent wound care for patients who suffer from chronic wound and need advanced wound care through qualified nurses according to knowledge related to evidence based of practice. this presentation will discuss the journey of RMS in developing wound ostomy unit how it began and what is the effect of this unit in patient out comes based on numerical data and photos

Results and Discussion: A person with chronic /complicated wound often suffers from a myriad of biosychosocial problems, such as physical disability, pain, social needs, and mental anguish. Beside that there are direct and indirect cost will affect patient and hospital as long hospitalization, out of work, transportation…etc.To meet these issues there is demand to provide skilled help from knowledgeable wound care professionals working through interprofessional team to provide comprehensive integrated care with excellent car at lowest cost. in RMS we began our journey in 2010 in KHH from four qualified nurses received patients after being transferred from their doctors as outpatient or in patient to provide best wound care with minimal cost and take care of whole patient not just hole in patient, then we extend to all RMS hospitals run over country established wound care clinic to facilitate providing care to all beneficiaries and improving patients care out comes.

Conclusion: Wound care clinic has beneficial role in providing excellent wound care with minimal cost and emphasize that wound care is no longer a matter of simply changing a dressing it is a specialty need multidisciplinary team and scientific evidence based in practice.

(10)

Prevalence and Correlates of Cardiac Cachexia among Jordanian Patients with Chronic Heart Failure

Ahmad Kamel Al-Omari, Issa M. Hweidi

Objectives: The aims of this study were to identify the prevalence, level, and correlates of cardiac cachexia among Jordanian patients with chronic heart failure.

Methodology: A cross-sectional design was employed. A convenient sample of 300 chronic heart failure patients was recruited from accessible chronic heart failure patients who regularly visit the cardiac care clinics at two different hospitals that represent two health sectors in Jordan. A self-developed instrument was used to collect the data for the purpose of this study.

Results and Discussion: The mean of the total cachexia score of the sample was 5.88. Cardiac cachexia was detected in 58.7% (n= 176) about half of them were having mild cachexia. The prevalence of cardiac cachexia was 13.15%. There were statistically significant correlation between the total cachexia score and some variables that include the patients' age, monthly income, and number of years since diagnosed as chronic heart failure patients; however, number of daily smoked cigarettes wasn't significantly correlated with the total cachexia score.

Conclusion: Cardiac cachexia has not been widely investigated yet. The findings of this study can be used as a baseline data since this study is the first of its kind conducted at the national and regional level. In addition, this study can be useful for determining effective therapeutic modalities that can be employed on behalf of those patients among the health care team; particularly nurses.

(11)
Spirituality among Parents of Children with Cancer in a Middle Eastern Country

Myrna Doumit, PhD, RN;(Lebanon)
Amal C. Rahi, MPH; Raya Saab, MD; Marianne Majdalani, MD

Background: Spirituality is usually defined as the people's search for the meaning of life and death, search for purpose, for connectedness to self, to others, to nature, and to the sacred or significant; it might also involve seeking transcendence beyond life. It is a complex, dynamic, and multidimensional concept – not necessarily with a religious connotation – and an integral part or need of the human being.

Purpose: The purpose of this study is to understand the meaning of spirituality for parents of cancer patients without imposing any a priori categorization that may limit the field of inquiry.
Design: This qualitative study followed the Heideggerian interpretive phenomenological method described by Diekelmann and Ironside (1998)

Findings: This first study yielded the constitutive pattern "spirituality is a multi-level relationship. It is a relation up (with God) and down (with people). It is a giving and receiving existential rapport". Five themes included: "Support from family, friends and staff is a major element of spirituality"; "Interaction with other parents is a blessing and a torment";" The power of knowing"; "The power of communicating the experience to an unknown"; "Relationship with God".

Discussion: Understanding the meaning of spirituality for parents of children with cancer is essential for health professionals. Approaching this aspect of care from the parents' perspective will help caregivers to adapt to their child's illness.
Key words: Spirituality, Quality of Care, Culture

(12)
Global, Regional and National Perspective of Mental Health Problems among Children

Amjad Jumaian, MD (Jordan)

Jordan has made significant progress in meeting its obligations towards its children as enshrined in the Convention on the Rights of the Child.
Children and Adolescents represent almost 55% of the whole population of Jordan. The first child psychiatry clinic was established at the RMS in 2003 at the KHMC. The child mental health team took the lead by providing community education about childhood mental health issues. Lectures and training workshops carried out around the country, including schools, social clubs, and governmental institutions.
Although child and adolescent psychiatry as a subspecialty is scarce in Jordan, cooperation amongst different governmental institutions; Royal medical Services, University hospitals, hospitals of the Ministry of Health, and non governmental organizations including the Jordan River Foundation and international NGO's, has led to a more accepting approach towards dealing with mental health issues in society.

(13)
Principle of Growth and Development Overview

Manar Aqrabawi, MD (Jordan)

Human growth and development is a lifelong process of physical, behavioral cognitive and emotional growth and changes
Development as a process is complex because it is the product of biological cognitive and socio emotional process
Will the pattern of development is likely to be similar the outcome of developmental process and roll of development are likely to vary among children
This talk will present the principle of normal human growth and development as will present our experience with the children with developmental problems

(14)
Nursing Perspective in The Care of Children with Psychiatric Health Problems

Osama Mohammad Obaid

Objectives Aim of the study: To highlight nurses perspectives regarding care of child with mental illness.

Methodology Methodology: Systemic review using CINAHL, Pubmed, and Science direct

database were undertaken, using the key words 'mental illness', 'childhood, ' nurses perspectives', prevalence of child mental illness. The literature search covered the period from 2000 to 2018

Results and Discussion: The literature showed nurses views regarding challenging of care of child with mental illness. Major themes arise, the need to address child mental illness by early detection through primary health care and school nurses, social stigma that persist surrounding mental illness, and lack of mental health family associations that offer care for child's and their families. In Jordan, mental health system collaborates with a number of agencies to provide public education and awareness campaigns that support a variety of population groups like children. Regarding nursing care, the most important duty of nurse is to maintain a positive therapeutic relationship with patients.

Conclusion: it can be concluded that mental health nurses are in the most important position to support children and families at early stages, and early detection of child mental illness through organizing regular visits to schools. Furthermore, increase awareness of mental illness during childhood through continuous psycho-education in the community.

(15)
Global Development Delayed among Jordanian Children's.

RN Eman Khlif Alkaabneh, DR.Manar AL-Aqrabawi, DR.Amjad Jmeaan.
RN Wael Essa Bader, RN Njood Alabadi

Objectives: to study the spectrum of globally delayed among Jordanian children's with respect to their clinical feature, method of diagnosis and possible management.

Methodology This retrospective studies review was carried out of QRH for children's who affected development delayed between (2017-2015), with history of development disorder, files received on details. The gender, age, presentation, and subsequent diagnosis and management, were studied.

Results and discussion (2017-2015)
Cerebral palsy: 45 %
Learning difficulty: 10 %
Mental retardation: 16 %
Autistic: 12 %
Syndromatic cases: 7 %
Delayed for undefeatable cases: 10

Conclusion: Early clinical evaluation of patients with development delayed is important to improving the out come.

(16)
Psychosocial Aspects of Childbirth Child and Mother

Dr. Alaa Ahmad Ababneh

Objectives The purpose of this scoping review was to explore the psychosocial needs of childbirth which include the impact of childbirth experience, parent adaptation and parent- infant interactions.

Methodology A review of full-text articles in English, from 2013 to 2018 of the following databases: CINHAL, Taylor &Francis, Science Direct and Google scholar was done. Further studies were identified through reference lists. The key terms used in this search were "impact of childbirth experience", "parent adaptation", "maternal attachment", and "psychosocial needs during postpartum".

Results and Discussion the childbirth experience is a significant event in women's life that health care providers should consider when caring of postpartum women. Findings in the literature have emphasized the profound impact of negative childbirth experience on the health of mothers and their infants. Infant- maternal attachment is an important dynamic process, which can affect the development of infant either positively or negatively. Infant –maternal attachment should be assessed and evaluated by nurses continuously during the postpartum period Conclusionpsychosocial aspects of childbirth are an important topic. Health care providers especially nurses should focus on assessing these psychosocial aspect during postpartum period such as the impact of childbirth experience on mother health and their infants.

Keywords Childbirth, Psychosocial, Childbirth Experience, Maternal Attachment.

(17)
The Pre- Hospital Fluid Resuscitation Strategy in Tactical Combat Casualty Care

Maria Remi (Rn), Panagiotis Iliopoulos,Cro

Objectives: The purpose of this paper is, to present the recent literature on pre-hospital fluid resuscitation strategy for the management of hemorrhagic shock and support of circulation in combat casualties, during all phases of care rendered in the tactical level.

Methodology: Data was obtained by the recent literature review on the Tactical Combat Casualty Care (TCCC) guidelines, performed by the Joint Trauma System (JTS)/ Committee on TCCC (CoTCCC), as well as by the complementary directives provided by the Special Operations Medical Association's (SOMA) Tactical Trauma Protocols (SOF TTPs).

Results and Discussion Early in the conflicts in Afghanistan and Iraq, military trauma surgeons observed that, the large-volume crystalloid resuscitation used for initial resuscitation in hemorrhagic shock might be exacerbating the coagulopathy of trauma and causing excess deaths from uncontrolled hemorrhage. Recently, new concepts have been emerging calling for advances that include hypotensive resuscitation, use of pre-hospital whole blood or blood components and/or use of colloids when blood or blood component administration is not feasible due to logistics constraints.

Conclusion It goes without saying that, the increasing awareness that fluid resuscitation for combat casualties in hemorrhagic shock is best accomplished with fluid that is identical to that lost by the casualty (whole blood, plasma, RBCs etc.), has led to improvements regarding hemorrhage mitigation. However, considerations regarding blood transportation on the battlefield remain crucial for the future Medical Concept of Operations Plans (Med- CONOPS) and Planning Process.

(18)
Effect of Asthmamd Smartphone Application On Quality of Life Among Adolescents with Asthma in High Schools in Jordan

Ahlam Attallah Al Sarayrah , Nihaya Al-Sheyab, PhD, RN.
Prof. Mahmoud Al-Omari, Physical Therapist

Objectives To assess the feasibility and effectiveness of using asthmaMD smartphone application on self reported asthma related quality of life, asthma control and level of satisfaction among adolescents with asthma in high schools in Jordan.

Methodology Design. A cluster randomized controlled design was used in this trial. Setting. Four private schools and two public schools were randomly chosen from the list of all eligible schools from three regions in Jordan north, middle, and south using a closed envelope technique. The selection was stratified based on governorate and school type. Participants. A total of 153 participants; 48 students from two private schools in Aqaba, 63 students from two schools in Irbid, and 42 students from two schools in Amman with moderate to severe asthma were recruited depending on the ISAAC questionnaire screening results. Eligible students were those who identified themselves as asthmatics using the ISAAC questionnaire and also the diagnosis was verified by their parents to confirm having asthma diagnosis among students in grades 10 and 11. Intervention. The participants were randomized to Smartphone application group or intervention group, asthmaMD application guides the participants through a personalized action plan or paper based monitoring group or control group.

Results and Discussion There was a statistically significant difference in the asthma control, quality of life between the two groups. This study found that the use of asthmaMD smartphone application resulted in higher asthma related quality of life scores at two months of follow up, MD of mean scores 0.48, 95 percent CI 0.05 to 0.92 p less than 0.002, improve asthma control, MD of mean scores 1.26, 95 percent CI 0.06 to 2.46 p less than 0.02, and more than 90 percent reported that they were satisfied using this application.

Conclusion Smartphone application provides a convenient and practical asthma control and quality of life compared with paper based monitoring.

(19) Asymptomatic Peripheral Arterial Disease Among Diabetic Patients

Waqqas Abu jabalh, Reem Alqadah Ahmad Younis Dina Alnawafaa Khalil Almatarneh

Objectives to assess the prevalence of asymptomatic peripheral arterial disease among diabetic patients attending the diabetic foot clinic at the National Center for Diabetes, Endocrinology and Genetics (NCDEG).

Methodology A cross sectional study was conducted at the National Center for Diabetes, Endocrinology and Genetics (NCDEG) from the 1st of November 2014 to the 1st of March 2015. One hundred and one diabetic foot patients (T2DM) were included in this study. Peripheral Arterial Disease (PAD) was assessed using Ankle Brachial Index (ABI). Toe Brachial Index (TBI) was used to detect for PAD when the ABI result was more than 1.4. Edinburgh Questionnaire was used to classify patients into symptomatic and asymptomatic PAD. Chi-square test was used to compare categorical differences, and Logistic regression was used to calculate the adjusted Odds Ratios (OR).

Results and Discussion The prevalence of PAD in diabetic patients with foot ulcers based on ABI <0.9 was 29.7% and for those with TBI ?0.7 was 39.6%. The prevalence of asymptomatic vs. symptomatic PAD in our study was 28.7% vs. 10.9%.

Conclusion A high prevalence of PAD was found in diabetic foot patients attending the NCDEG. Asymptomatic PAD was approximately three times more than symptomatic PAD cases.Increased awareness and further research on larger number of patients are urgently needed to detect and treat PAD patients.

(20)
Midwives and Obstetricians' Attitudes toward Midwifery Practice Roles in Hospita l

Reema Hamdan Kiewan MSNc.CNs.RNM, Muntaha Gharaibeh RN PhD ,Karimeh Alnuaimi RN RM PhD Assistant professor

Objectives The aims of this study were to identify midwives' and obstetricians' attitudes toward midwives' practiced roles in hospitals, and to identify the differences in their attitudes toward midwives practiced roles.

Methodology A descriptive, cross-sectional, study design was used. A convenience sample of 303 midwives and 143 obstetricians were recruited. Participants were from twelve Ministry of Health (MOH)and Royal Medical Services(RMS) hospitals distributed across seven governorates. Two reliable and valid self-administered questionnaires were used to collect data including socio-demographic data related characteristic of participants and obstetricians' and midwives' attitude toward midwives' practiced role in hospitals. Data management and statistical analysis were conducted using (SPSS) version17.0. Two-tailed t-test was used to compare the mean differences between midwives' and obstetricians' attitudes with selected socio-demographic variables.

Results and Discussion: There were significant differences between obstetricians in the three subscales of attitudes: midwives women relationship attitude subscale, midwives trust and mutual respect subscale, and work environment attitudes subscale. A significant difference by an institution was reported: obstetricians and midwives who worked in MOH and those who worked in RMS. All of the attitudes subscales were higher for midwives than obstetricians except for obstetrician's attitudes toward work environment midwives. Significant differences in attitudes between obstetricians and midwives in the three subscales; midwives women relationship attitude (P value < 0.05(.000), t-value = 4.29) where midwives reported higher mean than obstetricians, midwives trust and mutual respect subscale, (P value <0.05 (.000), t-value =4.46); midwives had higher mean score than obstetricians. Obstetricians total mean score for the work environment subscale was higher than

that of midwives (P value <0.05 (.041), t- value = -2.05), attitudes. Discussion: The results show that obstetricians recognize that midwives are qualified and competent professionals but still lack competencies/skills to make them independent practitioners. The findings also confirm the need to improve midwives' practices by moving from being able to perform a specific task to possess all three attributes of "competencies" where they can intervene, manage, and make a decision with confidence in a given situation.

Conclusion It can be concluded that both midwives and obstetricians reported positive attitudes toward midwives practiced roles in hospitals with significant differences in few areas. This contradicts many previous studies that show the inferiority of midwifery status and value of midwives in Jordan . Therefore, these positive findings mightencourage midwives and obstetricians to work side by sideat educational /academic level to reevaluate and update the midwifery curriculum to meet the ICM competencies and health sector needs. This will be a major step to produce competent midwifery graduates who can work at clinical areas where their responsibility is recognized and organized.

(21)

Evaluation of The Effect of Childbirth Preparation Course On Self-Efficacy, Anxiety, And Birth Outcomes Among Nulliparous Jordanian Women.

Asma'a Shaker, AbdelMahdi AbuAbed

Objectives to evaluate the effect of childbirth preparation course on self-efficacy, state anxiety, and birth outcomes among nulliparous Jordanian women.

Methodology A randomized controlled trial with pretest/post-test design of a childbirth preparation course was used. From the 1st of July to the 15th of September 2016, 128 low-risk nulliparous women were recruited and assigned randomly into two groups.

Results and Discussion There was a significant higher level of self-efficacy in coping with labour process, a significant lower level of childbirth related anxiety, a significant higher incidence of spontaneous onset of labour, a significant higher mean of cervical dilation on admission and a significant earlier breastfeeding initiation time for women in the experimental group. The positive effect of childbirth preparation course on self-efficacy, state-anxiety, and some birth outcomes indicating that Jordanian women in our study were motivated enough to know and receive information about childbirth; they felt empowered by the knowledge we gave, and they were willing to learn and apply what they learned.

Conclusion Childbirth preparation course is effective and appropriate in improving maternal self-efficacy and decreasing level of state anxiety and show some positive effect on selected birth outcomes. Health care policy planners should facilitate the embedding of our childbirth preparation course as a part of the antenatal care to improve maternal and neonatal health.

(22)

Effect of Maternal Age on the Risk of Preterm Birth between Primigravida and Multigravida

Bothaina Aref Qatamin(RN), Eman Abdlgane Tanashat, Rana Awad Al Nawaiseh, Lina Attalla AL-Assasfeh, Fatima Ibrahim Almawajdeh

Objectives The aim of this study is to quantify the risk of premature delivery between primigravida and multigravida in relation to their age groups.

Methodology A retrospective cohort study of medical files to review the correlations between premature delivery and gravida and its relation to the age group. The study was conducted in Prince Zaid Hospital (PZH), between (1st Jan -31st Dec) 2013. A random selection of (902) medical files of delivered women in the maternity ward was done, then the files were reviewed. (230) files of the total number were belonging to primi gravida women, and 672 files were belonging to multigravida. Multigravida and primi gravida was classified according to age group as follow: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, >=45 years old. Premature deliveries were evaluated according to the gravida and age group.

Results and Discussion Primigravida represents 25.5 % (230/902) of overall delivered women, with average age of 24.5 years old, while multigravida average age was 30.8 years old, slight difference

in the prevalence of premature delivery between multigravida and primigravida, the overall rate was 5.3% (48/902), it was 5.2% (35/672), 5.6% (13/230) for multigravida and primigravida respectively. Between primi gravida women the age group of 20-24, and 25-29 was the more incidence of premature delivery respectively, while in multigravida the age group of 25-29, 30-34 was the more incidence equally, the age group of 40 and above was the less incidence of premature delivery for both multigravida and primi gravida.

Conclusion Eextreme ages of mothers of both multigravida and primigravida was the less incidence of premature delivery, even the increased incidence between specific age groups for both primi and multigravida.

(23)
Nurses' and Patients' Perception of Quality of Psychiatric Nursing Care in Jordan

Wafa S. Alsyoof, RN, Ayman M. Hamdan-Mansour, RN, MSN, PhD Shaher H. Hamaideh, PhD, MSN, RN , Khaled M. Alnadi, Senior Specialist ,MD , Rawan A. Al-adwan, RN

Objectives This study aimed at assessing nurses' and patients' perceptions of quality of psychiatric nursing care and comparing these perceptions, and exploring the differences in nurses' and patients' perceptions of quality of psychiatric nursing care in relation to their demographics.

Methodology A cross-sectional survey conducted using a convenience sample of 123 psychiatric nurses employing self-administered questionnaire, and 150 patients from inpatients psychiatric units employing a structured interview method. Data were collected from nurses using Karen-Personnel Instrument and from patients using Karen-Patient instrument.

Results and Discussion Nurses rated the quality of psychiatric nursing care as satisfactory (64.0%), while patients rated it as less satisfactory (52.4%). Nurses who are male, attending psychiatric courses, selecting psychiatric unit, willing to continue in psychiatry, and providing indirect care have significantly higher perception of quality of psychiatric nursing care. Patients in military hospital have significantly higher perception of quality of psychiatric nursing care than those in public hospitals.
Conclusionto improve quality of psychiatric nursing care, there should be a joint education for both patients and nurses about component of quality of psychiatric nursing care.

(24)
Assessing Social Anxiety in Persons who Stutter

Nuha Remon Yacoub RN

Co-authors Semia Ali Alghnemat, speech therapist; Amer Jaradat, RN; Mariam Khalaf Alrawashdeh,RN; Lina Bader, RN; Enad AlSharaiah, Paramedic

Objectives Stuttering is a speech disorder that has been found to have a negative impact on the quality of life. Stuttering is frequently associated with negative consequences across the lifespan. Consequently, people who stutter may be at increased risk of developing psychological, emotional, and behavioral problems. Anxiety, in particular, has been highlighted as one of the most common psychological concomitants of stuttering.The aim of this study was to assess the social anxiety in persons who visit the speech clinic at the Prince Hashem Bin Al-Hussein military hospital.
Methodology A cross-sectional study was conducted in May 2018. A convenience sample of 42 participants who visited the speech clinic were selected. The Stuttering Severity Instrument-3 (SSI3) was used to determine the severity of the stuttering, and the Arabic version of the social anxiety scale-29 was used to assess the social anxiety among them.

Results and Discussion The participants were 64 % males and 35% females with a mean of age of 12.2 years (SD= 5.07). The study findings showed that the means of the stuttering severity, and the social anxiety among those participants was 17.5 (SD = 7.9), 23.9 (SD= 10.4) respectively. Almost 42% of the participants' stuttering was rated in the moderate category, and 28% in the mild category. Moreover, nearly 30% of the participants reported having social anxiety. There was a significant correlation between stuttering and social anxiety ($r=0.639$, $p<0.05$), and between stuttering and age group ($r=0.619$, $p<0.05$).

Conclusion Measurement of social anxiety is an important element in the assessment of persons who stutter. Incorporation of social anxiety reduction in the treatment of stuttering should be considered. However, we recommend replicating this study by correlating more sociodemographic factors to social anxiety among persons who stutter.

(25)

Exploring The Levels of Parental Perception and Stress Among Parents Having an Obese Oroverweight Children Aged 7-12 Years: South of Jordan

Sonia Kreshan RN, Dr Basil Amarneh, RN Hamasat Al twarah, RN Amnah Al btoush,RN Eman Sarri

Objectives This study aimed to explore parental stress and perceptionrelated to obesity or overweight,during childhood period aged seven to twelve years, as well as, to estimate the prevalence of obesity and overweight for the same age group.

Methodology A cross-sectional design study was conduct in 2017 at 27 governmental and private elementary schools in Aqaba, Jordan. Throught a multi stage cluster sampling method ,a total of 704 parents of children were recruited. The Obesity Parental Perception Scale (OPPS), the Parental Stress Measurement Scale (PSMS) were used.

Results and Discussion The prevalence of obesity and overweight among children was 7.5%. The highest parent's perception levels was 71.7% of the parent's had semi-adequate perception about the weight of their children .54.3%of the parents had experienced high-stress level. Parental perception levels showed significant association with educational levels of parentsDeveloped and developing countries are facing the epidemic of overweight and obesity. According to CDC standard criteria, a child's weight status is determined using an age- and sexspecific percentile for BMI , the prevalence of obesity and overweight among children aged 7-12 years old for the current study was 7.5%, a lower result than the previously estimated ones in Irbid governorate in Jordan, 20.4%[13], 24.4 % [14]. Beside, 25% [15]. These studies had different methodologies and age group of the sample studied.The study has also showed that 15.3% of the parents indicated that their children has the right weight, while the most of the parents have perceived their children as overweight. Then again, 23.2% of the parents perceived their children to being obese. Also, 25.3% of the parents denied that their children were obese or overweight despite the fact that all participated children were either overweight or obese. These results matches the results of several studies [25- 30].This failure, which parents had, in defining that their children were either overweight or obese could be due to the unwillingness of parents to admit that their children were overweight and obese or due to their lack of correctly defining the meaning of overweight and obese.

Conclusion Overweight and obesity are becoming a health problem among children in Jordan. More than half of the parents had experienced high-stress level related to their children weight status. Developing community awareness, decreasing parental stress, improving parents' perception, and reinforcing healthy lifestyle not only for the children but also for the family are needed.

(26)

Device Associated Health Care Associated Infection (DA-HAI) at King Hussein Medical Centre

Jansait Nasser Al Quraan (RN), (Moh'd Rami) Al-Ahmar (MD), Rawan Ibrahim Freihat (RN), RawanMoh'd Abu Amera (RN), ManarAbdelhamid Abu Snober (RN)

Objectives To identify the Device Associated Health Care Associated Infection (DA-HAI) rate, microbiological profile, Length of Stay (LOS), mortality rate in three Intensive Care Units (ICUs) at King Hussein Medical Center (KHMC).

Methodology Retrospective study , 404 patients admitted to three (ICUs) at (KHMC) and found to have infection during the period from Jan 2017 to Dec 2017 were the base of study. Implementing the methodology developed by Naval American Medical Research Unit (NAMRU). Data collection was conducted in the participating medical, surgical and neonatal ICUs then uploaded in the Infection Control Committee Office and analyzed using a software device ; we analyzed Central Line associated Blood Stream Infection

(CLABSI),Mechanical Ventilator Associated Pneumonia (VAP),and Catheter Associated Urinary Tract Infection (CAUTI) rates, Microorganism profile, mortality rate and (LOS).

Results and Discussion During 21023 hospitalization days; 149 patients acquired 60(DA-HAI) an overall rate 40% (DA-HAI) per 1000 ICU-days , the(CLABSI)rate was 9.6 per 1000 central line days ,the VAP rate was 1.5 per 1000 ventilators days and the (CAUTI) rate was 2.3 per 1000 catheter days, (LOS)was 25.1 days. Extra mortality rate was 41% and the overall hand hygiene compliance(HHC) was 52.3% .Acintobacter was the most commonly isolated microorganism (21.1%) followed by Klebseilla (16%).

Conclusion (DA-HAI), LOS, and mortality were found to be high when patient needs associated devices. Awareness and Hand Hygiene Compliance is primary importance to be increased to minimize the rate.

(27)

prevalence and association of premenstrual syndrome and premenstrual dysphoric disorder with academic performance among female university students

jumana hussiene shehadeh

Objectives To examine the prevalence of premenstrual syndrome (PMS) and PMDD, and their relationship with academic performance among female university students in Jordan.

Methodology Prospective–correlational design was employed among 858 university students. Data collected in regards to daily record of signs of PMDD and PMS, academic motivation, and student's involvement.

Results and Discussion Prevalence of PMS was 92.3% and that of PMDD was 7.7%. There were significant differences in self-determination levels between students with PMS and those with PMDD

Conclusion PMDD symptoms have a negative impact on female students' academic performance; thus, mental health professionals have a major role in determining factors that buffer severity of PMDD among females.

(28)

Treatment of Hepatitis C Virus infection in the setting of CKD patients

Lionel Rostaing MD (France)

The prevalence of hepatitis C virus (HCV) infection is very high worldwide, especially in some developing countries. In addition, poor hygiene practices can lead to a high prevalence of HCV infections transmitted in hemodialysis facilities, often independently of the prevalence of HCV in that country. This situation is mostly caused by nosocomial transmission. The availability of direct antiviral agents (DAAs), especially those that are pangenotypic, has made it possible that HCV infection may be an eradicable disease worldwide within the near future.

In the setting of patients with chronic kidney disease (CKD), the duration of DAA therapy is similar to that for the non-CKD population, i.e., 12 weeks. In most cases, the same combination of drugs given to non-CKD populations can be used for the CKD population (except those that are stage 5D). The exception is sofosbuvir as it is eliminated by the kidneys: thus, sofosbuvir is contraindicated when the eGFR is <30 mL/min. In addition, ribavirin-based therapy is not an option in CKD patients.

In the CKD population, HCV eradication is achievable at a similar rate to non-CKD patients, i.e. >95%. For dialysis patients, there are some combinations of drugs that have been studied for the CKD stage 5 population, such Elbasvir + Grazoprevir and Paritaprevir/Ritonavir/Ombitasvir plus a Dasabuvir Regimen. For HCV(+) kidney-transplant candidates, HCV treatment can be performed either while on dialysis or at early posttransplant. In some settings it is better not to treat the HCV infection during dialysis in order to offer transplant candidates a kidney from an HCV(+) donor and, thus, be able to treat the patient at posttransplant. In this situation, we need to consider that some DAAs interfere with calcineurin metabolism. Thus, close monitoring of tacrolimus or cyclosporine A trough levels is needed.

Finally, in the rare condition of HCV-induced cryoglobulinemia, cryoglobulinemia may persist despite the clearance of HCV infection.

(29)
Recurrence of FSGS in kidney transplantation

Nabil Al-Akash MD (Jordan)

Recurrence of Focal Segmental Glomerulosclerosis(FSGS) in the renal allograft occurs in 30-50% of patients and it is associated with poor allograft survival.
Major risk factors for recurrence include younger age at presentation, rapid progression to End Stage Renal Disease (ESRD), white race and the loss of previous allograft due to recurrence.
Recent data support the theory that circulating permeability factor plays a crucial role in podocyte injury and progression to ESRD.
The management of recurrent FSGS is inconsistent and highly empirical, prophylactic and preoperative treatment with Plasmapheresis represent main cornerstone of management.
Despite evidence of activation of Renin-Angiotensin system (RAS) in recurrence of FSGS and it's association with progression, only limited data exist in the protective role RAS blockade in this setting.
In recent years, however, therapy with Rituximab has shown promising results

(30)
Live-kidney Transplantation in the Presence of Performed DSAs

Lionel Rostaing MD (France)

In many countries, live-kidney transplantation is the only possible treatment because of the absence of deceased-donor transplant programs. In this setting, the physician may face the problem where the recipient has one or many anti-HLA alloantibodies directed against the potential donor (DSAs). These DSAs have to be searched for using ultrasensitive techniques, such as Luminex. The use of less sensitive techniques, such Elisa or CDC, will not detect them. When DSAs are present, they may not or may not bind the complement: if they do so, then the microlymphocytotoxicity- test will be positive; otherwise, this test will be negative. However, in the latter situation, a flow-cytometry cross-match will be positive.
When a DSA is present at pretransplant, the mean fluorescence intensity (MFI) is assessed. If it is <3000, no desensitization is necessary. Immunosuppression then relies on induction with antithymocyte globulin (ATG), with tacrolimus + mycophenolic acid + steroids as the maintenance therapy. Conversely, if the MFI is >3000, pretransplant desensitization is necessary: IVIg alone is useless/ineffective. The most efficient treatment relies on apheresis sessions (plasmapheresis or immunoadsorption), plus rituximab and immunosuppression (tacrolimus + mycophenolic acid + steroids). The induction therapy will rely on ATG. Despite these treatments, the risk of antibody-mediated rejection is high (~20%). However, when there is a possible donor that is HLA-incompatible, then desensitization is worth it.

(31)
Management of Anemia in Chronic Kidney Disease

Ayham Haddad MD (Jordan)

In any individual, anemia may be the initial laboratory sign of an underlying medical problem. Consequently, a complete blood count, including the hemoglobin (Hb) concentration, is routinely part of global health assessment in most adults, whether or not they have chronic kidney disease (CKD).
In patients with CKD but stable kidney function, the appearance or progression of anemia may herald a new problem that is causing blood loss or is interfering with red cell production.
The anemia should be evaluated independently of CKD stage in order to identify any reversible process contributing to the anemia.
Its presence carries higher complication rates, increased morbidity and mortality.
It is associated with: Left ventricular dysfunction, Heart failure, Reduction in exercise capacity, Poor quality of life.
It is a multi-factorial in aetiology, primarily caused by deficiency of erythropoietin and iron, but other factors also play a role in its pathogenesis like: patient factors, inter-current clinical events and practice patterns
The most commonly encountered reversible cause of chronic anemia or worsening anemia in CKD patients, other than anemia related directly to CKD, is iron deficiency anemia.
The use of iron therapies and erythropoiesis stimulating agents (ESAs) has allowed improvement in patients with anemia of CKD

(32)
Does Fasting Ramadan Affect Graft Function in Renal Transplant Recipients?

Hussien al shebli Otoum, Munther Hijazat, Ameen Al-Qudah, Khalid Hamadneh, Khalid Omari

Objectives Ramadan, the ninth lunar month of Islamic calendar. Fasting during the month of Ramadan is one of the five pillars of Islam and a fundamental religious duty for Muslims. During this month, healthy adult Muslims are obligated to abstain from eating and drinking from dawn to sunset. The month of Ramadan can occur in any season of the year, as the Islamic lunar calendar is 11 days shorter than the solar calendar . The hours spent on fasting can vary from 10 to 18 h, depending on the seasonal and regional features. Despite the sick persons are exempted from fasting this month, the recipients with stable graft functions are often keen to fast it, as this is a religious obligation. Some concerns about the impact of dehydration and the subsequent renal hypoperfusion during Ramadan fasting for patients with renal diseases, and kidney recipients. These concerns particularly arises when the month of Ramadan occurs during hot and dry summers with long daytime duration.

Methodology This study was performed at KHMC-Jordan during the month of Ramadan in 2013 All patients included in this study were given five appointments: *One appointment before fasting Ramadan *Three appointments during the month of Ramadan (each7-- 10 days) *One appointment after the month of Ramadan. Physical and biochemical parameters (BUN, S.creatinine,Hb,drug level, electrolytes and urine analysis)in addition to e- GFR were recorded during each visit to the clinic. We used Cockcroft-Gault formula to estimate the glomerular filtration rate (GFR). .. Inclusion criteria: **Transplanted patients for more than two years. **Stable graft functions. **Voluntary consent to fast Ramadan. Exclusion criteria : **Any acute illness immediately prior to and during the month of fasting. **High risk patients (second transplant, history of rejection …) **Duration post transplant less than two years **S. creatinine more than 1,5 mg/dl. ** Pregnant patients There was no graft loss in the fasting patients during the study period No episodes of acute graft rejection or acute tubular necrosis occurred in the fasting group during Ramadan All our 73 patients had completed fasting Ramadan without significant adverse effects.

Results and Discussion Fasting during the lunar month of Ramadan is mandatory for all healthy adult Muslims. The sick, travelers, debilitated elderly people, and pregnant and lactating women are excluded. Excluded, also, are those in whom fasting may be harmful to their health. We examined the effect of Ramadan fasting on transplant patients with normal renal function and found no adverse effects. We noted no change in e-GFR after fasting Ramadan, even after adjusting for age, presence of diabetes mellitus,, proteinuria, or time after transplant. There were no significant differences between fasters and non-fasters regarding changes in GFR, mean arterial pressure (MAP), and urinary protein excretion between baseline and at the end of Ramadan. There is paucity of studies addressing this issue in kidney transplant patients. None of them show any bad effect on kidney functions.

Conclusion This study showed that fasting Ramadan even in hot months (July —August) with long fasting time (15—16 hours) doesn't affect the graft function in recipients with stable renal function. To be more safe ,our advice is to include more patients in the study and to follow them for 2—3 consecutive Ramadans. I think we can answer our patients that fasting Ramadan is safe, especially in the presence of long acting CNI, which can be used once daily.

(33)
Acute Rheumatologic Conditions

Nicholas Manolios MD (Australia)

Acute rheumatologic conditions can sometimes present as emergencies that range from severe pain due to disease flares, which don't endanger the patient's life, to true emergencies that need immediate and intensive care. Some of the important articular emergencies are septic arthritis, giant cell arteritis, acute polyarthritis and atlanto-axial dislocation. More devastating conditions are usually secondary to connective tissue diseases such as lupus or vasculities, which must be recognised early and treated promptly. A high degree of suspicion and timely diagnosis is essential. Rheumatologic conditions not to be missed include macrophage activation

syndrome, scleroderma renal crisis, anti-neutrophil cytoplasmic antibodies-associated vasculopathies, catastrophic antiphospholipid syndrome, kidney-lung syndrome, central nervous system complications from lupus, Bechets, or rheumatologic pharmacotherapies. This presentation will predominantly focus on acute monoarticular arthritis (septic arthritis) presenting to the emergency department and giant cell temporal arteritis.

(34)
Management of Systemic Lupus Erythematosus in Pregnancy

Manal Mashaaleh MD (Jordan)

With the availability of better management for our lupus patients who are predominantly women in their reproductive age, we see now more pregnant patients with lupus with different challenges and better outcome.

The talk will include:
-When should our patient consider pregnancy?
-Which drug therapies must be stopped or changed?
-What is the risk for aPL syndrome?
-How to manage low-medium and high risk patients?
Finally recommendations regarding management of pregnancy and the role of the rheumatologist

(35)
Update in Systemic Lupus Erythematosis

Ala Al-heresh MD (Jordan)

Systemic lupus erythematosus (SLE) is a chronic autoimmune disease with multisystem involvement. Uncontrolled disease activity leads to irreversible end-organ damage, which in turn increases the risk of premature death. There has been great improvement in the survival rate in SLE over the last three decades, and that is mainly due to the introduction of steroids and other immunosuppressive agents. Lupus patients now achieve a 10-year survival rate of 85%.
Unfortunately few drugs have been approved for treating patients with lupus. The development of biological therapy lags behind that for other rheumatic diseases, with belimumab being the only approved targeted therapy.
"Treat-to-target" concepts are changing trial design and clinical practice, with evidence-based definition of response criteria in the form of remission and low disease activity now on the horizon.
New classification criteria for SLE have greater sensitivity and therefore improve the diagnostic certainty for some patients, especially those who may previously have been labeled as having undifferentiated symptoms.

(36)
The Cholinergic Anti-Inflammatory Pathway in Arthritis

Nicholas Manolios MD (Australia)

The cholinergic anti-inflammatory pathway is a neural mechanism recently described by which the nervous system regulates the immune response by providing a braking effect that protects the body against further damage. Stimulation of the efferent pathway of the vagus nerve releases acetylcholine, which interacts with the $\alpha 7$ subunit of the nicotinic acetylcholine receptor (nAChR) present on macrophages to inhibit release of pro-inflammatory cytokines. The cholinergic anti-inflammatory pathway will be discussed and its role in the management of arthritis.

(37)
Updates in Vasculitis

Ali S M Jawad.MD (UK)

The systemic vasculitides are a group of heterogeneous disorders, very distinct in their clinical manifestations and treatment requirements but characteristically associated with inflammation of the wall of the blood vessels. They are classified according to the size of the vessel involved. Prompt diagnosis and initiation of appropriate treatment is essential as they are associated with significant morbidity and mortality.
Subcutaneous tocilizumab (TCZ), a humanized anti-human IL-6 receptor antibody, is proving to be an effective addition to corticosteroids in treating patients with giant cell arteritis (GCA). TCZ, when used with a tapering course of glucocorticoids (and when used alone after glucocorticoids), is recommended by NICE as an option for treating GCA in adults, only if: they have relapsing or refractory disease. However, it is unclear whether TCZ has a fundamental, rather than suppressive,

effect on the underlying pathophysiology of the disease.

The results of a recent placebo controlled trial of the use of TCZ in patients with refractory Takayasu's arteritis, another large vessel disease, there was a trend favouring TCZ over placebo for time to relapse, without any additional safety concerns. However, the major limitation of the study was its small size.

There are 3 distinct ANCA associated vasculitis (AAV) diseases distinguished on clinical and pathological features: granulomatosis with polyangiitis (GPA, formerly Wegener's granulomatosis), microscopic polyangiitis (MPA), and eosinophilic granulomatosis with polyangiitis (EGPA, Churg-Strauss syndrome). Recently a number of studies highlighted the importance of ANCA serology in a subset of AAV patients. MPO-ANCA resulted significantly more frequent in Asian populations [Japanese OR 59.2, p<0.001, Chinese OR 6.8, p<0.001] Caucasian American [OR 2.6, p<0.001] and Middle Eastern/Turkish [OR 2.3, p<0.005], when compared with the Northern Europeans, who presented more PR3-ANCA specificity. ANCA negativity was also significantly more frequent in Caucasian Americans than Northern Europeans [OR 2.0, p=0.002]. These differences could be due to different genetic background. In addition in comparison with Northern Europeans, the Asian population presented significantly less ocular and ear, nose and throat (ENT) involvement while renal involvement was significantly less frequent in Caucasian Americans and significantly more frequent in Middle Eastern/Turkish. However, some differences were not completely determined by the differences in ANCA pattern.

Initial treatment of patients with AAV includes the use of immunosuppressive therapy especially in GPA and MPA consisting of glucocorticoids combined with either cyclophosphamide or rituximab. Selected patients with severe disease may benefit from the addition of plasma exchange. This approach is justified because the mortality rate in untreated generalized GPA is as high as 90% at two years, usually due to respiratory or renal failure.

EULAR recently published the 2018 update of its recommendations for the management of Behçet's syndrome (BS), a variable vessel vasculitis disorder. For the management of acute deep vein thrombosis in BS, glucocorticoids and immunosuppressives such as azathioprine, cyclophosphamide or cyclosporine-A are recommended. Monoclonal anti-TNF antibodies could be considered in refractory patients. Anticoagulants may be added, provided the risk of bleeding in general is low and coexistent pulmonary artery aneurysms are ruled out. For the management of pulmonary artery aneurysms, high-dose glucocorticoids and cyclophosphamide are recommended. Monoclonal anti-TNF antibodies should be considered in refractory cases. For patients who have or who are at high risk of major bleeding, embolization should be preferred to open surgery. For both aortic and peripheral artery aneurysms, medical treatment with cyclophosphamide and corticosteroids is necessary before intervention to repair. Surgery or stenting should not be delayed if the patient is symptomatic. For the 3 recommendations the level of evidence was only III and the strength of the recommendation was only C.

(38)
Approach to the Patient with a Movement Disorder

David Nicholl, MD (UK)
Dr David Nicholl has been running the Birmingham

Movement Disorders course (since 2004; @ bhammodis) http://birminghammodis.com. He also developed the 'Brief Neuro' exam video which has been viewed over ½ million times on YouTube. In this session, he will discuss the clinical approach to the patient with a hypokinetic (Parkinsonism) and hyperkinetic disorder (ataxia, chorea, dystonia, myoclonus, tics) with extensive use of videos from the course. At the end of this session, attendees will have a clear view on how to assess the movement disorders patient, consider the differential diagnosis and the use of appropriate investigations and management.

(39)
Update on Neuromyelitis Optica Spectrum Disorder

Saeed S Dahbour MD (Jordan)

NMOSD is a rapidly evolving clinical entity. Since its first description by Devic in 1894 of bilateral optic neuritis and myelitis, great and rapid progress in the last 20 years has been achieved. The discovery of specific autoantibodies to specific antigen on the podocyte of astrocytes (anti

aquaporin 4 IgG antibody) in 2004 led to better understanding and first diagnostic clinical criteria in 2006. This later was updated by the new criteria in 2015 stirred by new clinical, immunological and radiological further characterization. Here we will review the latest regarding this clinical disorder from diagnostic and therapeutic aspects. Also, we will clarify the recent findings of being more than central nervous system disorder and how to differentiate it from its major mimics.

(40)
The Neurology of Vitamins and Minerals

Majed Habahbeh MD (Jordan)

The nervous system is reliant on a range of nutrients including vitamins and minerals for optimal function. Deficiency of some of these nutrients is relatively common while others are rare. There is a striking divide between the developing world where nutritional deficiencies are endemic and the developed world where such deficiencies are relatively rare and are more likely to occur due to impaired absorption rather than poor intake.
In this presentation, I will discuss common neurological syndromes arising from these deficiencies, rare and esoteric syndromes, and some genetic disorders. Some deficiencies that were classically considered rare have recently been diagnosed more frequently, possibly following the increase in bariatric surgery techniques, and this will be discussed.
I will also attempt to clarify any associations between vitamins and neurological disorders such as stroke, dementia, multiple sclerosis and neuropathies.

(41)
Aetiology and Genetics of Parkinson's Disease

David Nicholl MD (UK)

Dr Nicholl was a co-author on the original paper identifying LRRK2 as a cause of familial PD in 2004, and, as a clinical neurologist, has been studying the genetics of Parkinsonism for over 20 years since his PhD. His talk will provide an update on the genetics of Parkinsonism with some tips on when to and when not to request genetic investigations and the use of next generation sequencing (NGS) panels. The talk will use extensive use of patient videos to illustrate the main learning points.

(42)
Management of Acute Stroke

Pierre Amarenco, MD, (France)

The management of acute ischemic stroke has been revolutionized with the advent of urgent revascularization therapies, and the development of stroke units. Stroke unit care decreases case fatality of stroke by 30% at 4 months and 30% more patient returned home at 6 months. On top of that, using intravenous rtPA within 4.5 hours of symptom onset improved outcome, with 40% more patients being independent at 3 months. Among them, about half of patients have documented large intracranial artery occlusion, and these patients are now candidates for an additional endovascular thrombectomy procedure, provided the procedure is started within 6 hours of symptom onset, with a further 50% more patients being independent at 3 months. In certain circumstances, patients with contra-indications to intravenous rtPA may undergo thrombectomy procedure only, such as patients with unknown time of symptom onset with positive diffusion weighted imaging but no visible lesion on FLAIR imaging, patients on anticoagulant treatment, or late patient arrival up until 6 hours after symptom onset. Despite these advances, only 5 to 10% of eligible patients have access to care. The key is recognition of stroke symptoms by the patient or close relatives, pre-hospital improvement of access to care by using a unique telephone number to rush the patient to the stroke unit, development of intra-hospital stroke team, and awareness campaign among the public.

(43)
Headache and Stroke

Marie-Germaine Bousser MD (France)

Headache is the most frequent neurological symptom and is most often related to « primary » disorders (migraine, tension-type headache, cluster headache etc.) which, though often distressing , do not carry a risk of stroke.

Among « secondary » headaches, many are related to vascular disorders such as ischemic or hemorrhagic stroke, in which headache raises no diagnostic issue because the prominent symptom is a focal deficit. Sudden severe headache is the major symptom of subarachnoid hemorrhage, due to ruptured intracranial aneurysm in 85% of cases. This presentation will not deal with such well known conditions but will address some unusual varieties of stroke in which headache is a frequent underdiagnosed warning symptom : cervical artery dissections, reversible cerebral vasoconstriction syndrome, central nervous system angiitis and cerebral venous thrombosis. In all these conditions, it is crucial to recognise the underlying cause of headache in order to try and predict and potentially prevent stroke. Another completely different and highly debated « headache-stroke »issue will also be discussed : that of migraine as a cause or risk factor for cerebral infarction.

(44)
Secondary Prevention of TIA and Minor Stroke

Pierre Amarenco, MD (France)

After first call to medical attention of patient with TIA or minor ischemic stroke (a stroke without significant handicap), admission in TIA clinic within the first 24 hours is recommended for immediate evaluation based on simple diagnostic tests (magnetic resonance imaging of the brain or a default CT scan, arterial imaging and cardiac evaluation). Based on these etiological findings, and risk stratification using simple tools (e.g., ABCD2 score), a secondary prevention treatment is started without delay, including antithrombotic treatment (e.g., antiplatelet agent in case of atherosclerotic disease, anticoagulant in case of atrial fibrillation), anti-hypertensive treatment (BP target < 140/90 mm Hg), lipid lowering treatment (LDL cholesterol < 100 mg/dL - 2.4 mmol/L), antidiabetic treatment (HbA1C <7%), smoking cessation, diet for weight loss and less salt intake, regular physical exercise.

(45)
Cerebral venous thrombosis: a rare condition worth to be known

Marie-Germaine Bousser, MD (France)

Cerebral venous thrombosis is a rare (< 1%) cause of ischemic and hemorrhagic stroke which differs in all respects from arterial stroke. Based on our prospective Lariboisière series of 512 patients hospitalised in the neurology department from 1997 to 2017, these differences will be illustrated : a higher incidence in young women ; a huge variety of medical, surgical and obstetrical causes ; a highly variable mode of onset, more frequently subacute than sudden ; a wide spectrum of clinical presentations with headache, focal deficits , seizures, disorders of consciousness as prominent signs ; a diagnosis based on the visualisation of the thrombosis of the sinuses and/or veins and not on the parenchymal lesions ; a treatment based on anticoagulation even in patients with hemorrhagic lesions ; a usually favourable outcome with a remarkable potential for long term improvement and o low death rate, 2.5% in our series . There are however still about 10% of cases which raise difficult therapeutis issues that will be discussed.

(46)
MRI for Diagnosing Prostate Cancer

Anwar Padhani MD (UK)

To know that PI-RADS is an imaging only system for lesion detection, characterization & localization in men with suspected clinically significant prostate cancer.
To learn that the minimal PI-RADS mpMRI approach includes 3 MRI sequences (T2W+DWI+DCE)
To realize imaging interpretations have been optimised for PCa with particular histologic features (>1cm, GS≥7 (prominent 4), solid growth pattern, desmoplasia); misses some significant cancers (especially in the TZ)
To find out that increasing PI-RADS assessment categories are associated with increased likelihood of significant cancer on per-lesion and per-patient basis
Review clinical trials data showing that mpMRI performance is dependent on PI-RADS cut-off, anatomic location, disease prevalence, significant cancer definition, background disease, image quality & reporter expertise; that the ability to 'rule

out' disease >> ability to 'rule in' in most studies Management decisions per PI-RADS category is dependent on patient groups, clinical features and priorities; to be agreed upon

(47)
Differential Diagnosis of Intracranial Space Occupying Lesions

Ahmed Iqbal MD (UK)

Intracranial space occupying lesions will be due to tumoural and non-tumoural reasons. As well as the age of the patient and clinical history, a systematic approach in interpreting the imaging is important to reach the correct diagnosis or differential diagnosis. Firstly the lesion should be assessed if it is intra or extra axial, solitary or multiple, crosses the midline or is cortically based. Secondly its CT and MRI characteristics such as fat, calcification, haemorrhage and enhancement pattern should be evaluated. Differential diagnosis of lesions in specific anatomical areas such as the sella, pineal region, cerebellopontine angle and skull base will be discussed. Primary versus secondary tumour and features of different primary tumours will be shown.

(48)
Multiparametric Imaging of Bone Marrow Metastatic Disease

Anwar Padhani MD (UK)

To understand the biologic mechanisms responsible for osteoblastic and osteolytic malignant lesions.
To subclassify metastatic bone disease according to appearances on BS/MRI/CT scans and show patterns reflect underlying biology.
To discuss multiparametric imaging in therapy response and show how biologic models enable improved understanding of imaging appearances.
To innumerate the professional challenges for implementing multiparametric imaging assessments in bone therapy monitoring.

(49)
Intracranial Haemorrhage and its Approaches

Ahmed Iqbal MD (UK)

There are several different types of intracranial haemorrhages, which includes parenchymal, subarachnoid (SAH), extradural and subdural. This lecture will focus on the differential diagnosis of spontaneous intracranial haemorrhages based on their imaging characteristics. These can due to many different causes and the appropriate further investigations such as CT angiography, Digital Subtraction Angiography or MRI depending on the patient's age, clinical history and imaging appearances will be discussed. Pathologies shown will include primary haemorrhage, haemorrhagic transformation of an infarct, pial arterio venous malformation, dural arterio venous malformation, amyloidosis, cavernoma, tumour, aneurysmal SAH and non- aneurysmal SAH.

(50)
Whole Body DWI for Tumor Detection and Assessment of Response

Anwar Padhani MD (UK)

- To provide a clinical rationale for the use of whole body MRI when evaluating metastatic disease extent and for therapy response assessment.
- To highlight and review the use of MET-RADS data-acquisition and response assessment guidelines.
- To illustrate the potential benefits of whole body tumour load quantification when assessing prognosis and for response assessments.
- To show case clinical pathways benefits, including allowing bone disease patients to benefit from precision medicine approaches

(51)
Stroke Imaging and Stroke Mimics

Ahmed Iqbal MD (UK)

Stroke is one of the leading causes of morbidity in the developed world. In the acute setting CT remains the modality of choice due to availability

and speed of acquisition. MRI is more sensitive but takes longer to acquire. The advantages and disadvantages of each modality will be discussed, including perfusion imaging, interpretation of subtle infarcts, rare types of infarcts, pitfalls and their role and imaging characteristics in investigating the cause of stroke such as dissection and atherosclerotic disease. Many other diseases such as tumour, abscess, tumefactive multiple sclerosis and seizure can also present with an acute neurological deficit and be mistakenly interpreted for an infarct on imaging. These imaging characteristics of these stroke mimics will be discussed.

(52)
MRI of the Lung, Indications and Risks

Waleed Mahafza MD (Jordan)

The rationale for using MRI in the management of patients with lung disease is obvious, since lung MRI enables comprehensive structural and functional imaging without using ionizing radiation.
MRI has been developed into a first-line imaging method in some pulmonary diseases such as congenital cardio-pulmonary vascular anomalies broncho-pulmonary dysplasia, cystic fibrosis and pancoast tumors. In addition lung MRI can provide a valuable alternative to MDCT when ionizing radiation or iodinated contrast agents are contra-indicated for example in the detection of pulmonary embolism.
The main challenges for the lung MRI are the low density tissue with relatively small amount of signal – generating protons, susceptibility artifacts generated at air tissue interfaces and motion artifacts related to cardio-respiratory motions.

(53)
Contrast Enhance Ultrasound; Our Experience at KHMC

Adnan R. Zayadeen MD (Jordan)

Contrast Enhanced Ultrasound (CEUS) has gained increasing role in diagnostic radiology recently. Last few years, there has been a consolidation in knowledge and practice. This resulted in worldwide establishment of CEUS in clinical practice. It has been used in Europe for more than 15 years and has recently been approved by the Food and Drug Administration (FDA) in the United States.
The second-generation agents are gas-filled microbubbles; stabilized by a shell made by albumin, surfactants, or phospholipids. Their mean diameter is 2.5 µm so they are exclusively intravascular agents that will stay in the body for about 15 minutes.
It has no nephro or hepatic toxicity. It is a bed side examination, that will provide a real time imaging of the examined organ, so it is more accurate and reliable than conventional US.
KHMC has started using CEUS in 2017. Experience and cases to be presented at this conference.

(54)
Ultrasonography of Hyperparathyroidism

Mohammad Gatasheh MD (Jordan)

Primary hyperparathyroidism is common endocrine disorder, it occurs in 1-2/1,000 in USA. 80-90% are caused by single parathyroid adenoma, 10-20% are caused by multiple gland enlargement (hyperplasia or multiple adenomas, example MEN1), less than 1% caused by carcinoma.
The diagnosis of hyperparathyroidism is clinical and abnormal biochemical findings (parathyroid hormone, calcium, phosphorus)
Imaging is used to help in diagnosis and localization of parathyroid adenoma.
Nuclear medicine imaging (Tc mibi scan) and contrast enhanced CT are used for parathyroid adenoma diagnosis and localization, but these are expensive, time consuming studies and associated with risk of radiation to the patient.
US emerged as simple, safe and quick imaging modality for parathyroid adenoma, it can diagnose and localize parathyroid adenoma prior to surgery, also it can detect coexistent thyroid nodule and it can be used to guide FNA procedures and alcohol ablation.
In this presentation: the anatomy and development of parathyroid glands and potential ectopic locations will be discussed, the US features of parathyroid adenoma and when to suspect malignancy, and how to do FNA and its expected outcome.

(55)

Stereotactic Body Radiotherapy (SBRT) Boost to Mimic High-Dose Rate (HDR) Brachytherapy Boost for Intermediate Risk Prostate Cancer: A Phase 1 Study

Dr. Motasem Al-Hanaqta, D.Loblaw, W. Chu*, A.Ravi*, G.Morton*, P.Cheung*

Objectives The primary goal was to measure toxicities of using SBRT to deliver a single fraction of 10-15 Gy to the prostate (in a phase 1 dose escalation strategy) as a boost in patients with intermediate risk prostate cancer. It was hypothesized that HDR brachytherapy-level doses of 10-15 Gy can be safely delivered using SBRT.

Methodology From 2011-2013, 30 patients with intermediate risk prostate cancer were enrolled, with 10 patients in each of 3 sequential SBRT boost dose cohorts (10 Gy, 12.5 Gy, and 15 Gy). SBRT single fraction was delivered with a rectal balloon and foley catheter. Magnetic resonance imaging was used to aid in contouring and determination of patient specific planning target volumes. All patients received intensity modulated radiotherapy (37.5 Gy in 15 fractions) afterwards. Acute/late toxicities (Common Terminology Criteria for Adverse Events, version 3.0) and health-related quality of life (Expanded Prostate Cancer Index Composite [EPIC]) were collected prospectively. The minimally clinically important change (MCIC) was defined as EPIC score decrease (baseline score – average follow-up score) > 0.5 SD, where SD is the standard deviation of baseline scores for each domain

Results and Discussion Median age was 71 years. Prostate volumes ranged from 24-48 cc. Mean baseline PSA was 10.2 ng/mL. Median follow-up was 51 months. There was no significant difference among the 3 cohorts except for baseline PSA (15 Gy cohort had higher PSA values), and duration of follow-up (follow-up was longest in the 10 Gy cohort given sequential nature of study). Acute toxicity was mild, with only 30% of all patients experiencing grade 2 GU toxicity and 0% grade 2 GI toxicity. Any late grade ? 2 GU toxicity occurred in 40% of patients, while any late grade ? 2 GI toxicity occurred in 30% of patients. One patient developed a rectal-urethral fistula after multiple biopsies of a rectal ulcer. There was no significant difference in the proportion of any late grade ?2 GU or GI toxicity among the 3 cohorts. The mean EPIC scores did not significantly change during the follow-up period in all domains among all patients. MCIC occurred in 27.6%, 37.9%, and 42.3%, respectively, in the urinary, bowel, and sexual domains. There were no significant differences in the proportion of MCIC among the 3 cohorts, except for the sexual domain. Patients in the 15 Gy cohort had a higher proportion of sexual MCIC. ($p = 0.0386$). There was only 1 patient who failed biochemically according to Phoenix definition. Patients in the 10 Gy cohort had significantly higher post treatment PSA levels over time compared to the other 2 cohorts ($p < 0.002$)

Conclusion Single fraction SBRT boost was well tolerated. 15 Gy arm patients had worse sexual function afterwards but lower post treatment PSA values compared to the 10 Gy arm. Such an approach is worthy of further investigation and may represent an alternative to brachytherapy boost.

(56)

Two Years Overall Survival of Patients with Glioblastoma Multiform Treated with Radiotherapy and Temozolamide -Royal Medical Services Experience

Nizar Mohammed Ghnmein, Hana Al-Mahasneh,MD., Haytham Saraireh,. MD, WajdiNajada,MD., Motasem Al-Hanaqta,MD

Objectives Postoperative Concurrent radiotherapy with Temozolamide and adjuvant Temozolamide is now the standard of care for glioblastoma multiforme (GBM) tumors . This Retrospective study was performed to determine the two years survival rate of the patients treated at Royal Medical Services

Methodology Sixty five patients patients age 18-70 with histologically proven GMB were enrolled onto this Retrospective study , Temozolomide (75 mg/m2/d × 7 d/week) was administered orally concomitant with fractionated radiotherapy (40-60 Gy total dose: 2-2.6 Gy × 5 d/wk for3- 6 weeks) followed by temozolomide monotherapy (150-200 mg/m2/d × 5 days, every 28 days for six cycles). The primary end points were Two years Survival Rate

Results and Discussion The Two years Survival rate was 28% , which is comparable with the results seen in the international studies .

Conclusion Temozolomide in combination with Radiotherapy is a gold standard for Glioblastoma Multifome tumor patients , Our data support and comparable with the International results . longer follow up and more patients enrolled is needed .

(57)
The role of PET-CT in volume definition in lung cancer

Dr. HaythamSaraireh, M. Tolia. A. Proiskos

Objectives The main objective of this study is to assist the role of PET-CT in volume definition in the treatment of of lung cancer with 3D-CRT.

Methodology Between the January 2011 and December 2013. 20 patients were referred for 3D-CRT and with established diagnosis and of NSCLC. All patients were planned with the aid of PET-CT. The clinical stage of the disease varied among them. Median age was 63 years. All patients were KPS below 80. Routine metastatic and work up was done for all of them. None had any suspicious findings of distant future metastasis.

Results and Discussion The use of PET-CT in 3D-CRT among radiation oncologist has been in great interest in oncology generally worldwide. Radiation volumes were alerted in 60%of the patients with the use of PET-CT for planning.

Conclusion PET-CT is mandatory for the 3D-CRT planning process in lung cancer.

(58)
Multimodality Imaging In The Early Diagnosis of Invasive Lobular Breast Cancer)

Suha Ghoul, Hazem Al-Masarei

Objectives To review invasive lobular breast cancer (ILC) clinical presentation and features on various imaging modalities.

Methodology Case-based discussions of ILC multimodality imaging to review the multimodality imaging features of ILC: (Mammographic, sonographic, Computed tomography (CT) scan, Magnetic resonance imaging (MRI) and Positron emission tomography-computed tomography (PET-CT)).

Results and Discussion (ILC) might not be easily clinically detectable and the radiologic appearance is atypical and occult. The radiology pathology correlation plays an important role in the detection, diagnosis and surveillance of (ILC). Breast MRI is important in (ILC) detection, staging and surveillance. Discussion of the pros and cons of the different modalities, including PET, in (ILC) staging.

Conclusion The histopathology of ILC gives it a rather distinguished appearances on multimodality breast imaging. However, there is paucity of prospective randomized controlled trials that evaluate the role of multimodality imaging in staging of ILC that correlate with the prognosis and outcome. Further research is needed.

(59)
Vascular challenges in kidney Transplantation

Omar Zoabi,MD (Jordan)

Kidney transplantation is a frequent procedure in King Hussain Medical Centre
About 50 kidney transplants are performed yearly in both pediatric and adult age group
In this report we will review the challenges and complications that emerge in the intra, and post-operative period.

(60)
Acute lower limb ischemia as a first presentation for ping pong cardiac thrombus

Kristi Janho , MD (Jordan)

A free-floating ball thrombus in the left heart is a rare clinical problem with potentially catastrophic consequences unless diagnosed and treated early. Clinically, a ball thrombus can produce symptoms of heart failure, embolize peripherally, or cause

sudden death. A Ping-Pong-like effect of the thrombus consists of sudden acceleration due to the impact of the mitral leaflets during ventricular systole, a thrombus movement within the heart cavity, and also rotation of the thrombus on its own axis. The primary risk of cardiac thrombus is the occurrence of cardiac embolism, in which the thrombus detaches from the ventricular wall and travels through the circulation and blocks blood vessels. In this report I present cases of acute lower limb ischemia as a first presentation for Ping pong thrombus in the left atrium and ventricle.

(61)
Thrombin Injection in False Aneurysm Repair

Mohammed Rashaideh,MD, Maryam Khalifa Eshtiwy,MD, Mashoor Mohammad Alzyod,RN.

Introduction: The pseudoaneurysm occuring after catheterization of the femoral artery is associated with significant morbidity.In this study we demonstrated that ultrasound(US)-guided injection of thrombin is safe & effective way to treat iatrogenic pseudoaneurysm compared to surgical repair & compression method.

Methods: Patients with pseudoaneurysms of femoral artery were evaluated by ultrasound. Under US-guidence.One thousand units of thrombin dissolved in Normal Saline solution was then injected slowly into the pseudoaneurysm to induce thrombosis. The patients were monitored closely for any adverse effects after thrombin injection.

Results: A total of 30 patients with femoral artery pseudoaneurysm were treated with direct percutaneous thrombin injection under US-guidence. Within seconds of thrombin injection thrombus formation was evident & blood flow in pseudoaneurysm soon ceased when the thrombosis extended to the conecting tract.All procedures were successful. No recurrence was noted during follow up periods of one month.

Conclusion: Our initial experience demonstrates the simplicity,lack of morbidity,& high success rate for US-guided percutaneous thrombin injection for the treatment of femoral artery pseudoaneurysm.

Key words: Pseudoaneurysm, ultrasound-guided thrombin injection,false aneurysm.

(62) Arterioarterial Bypass for Hemodialysis Outcome of arterioarterial graft in hemodialysis patients

Mohammed As'ad MD, Omar ALzoabi MD, Firas Nishwati MD, Mahmoud Khatatbeh RN, Anas Alshorofat RN

Objective: to assess the efficacy, safety, complications and outcomes of arterioarterial hemodialysis access grafts, in this study we will present our experience in creating arterioarterial prosthetic access for hemodialysis in patients with inadequate conditions for creating regular noncomplex arterivenous access

Methods: this is a retrospective analysis of 14 patients with end stage renal disease and multi-access failure who underwent arterioarterial hemodialysis grafts at vascular surgery department of King Hussain Medical Centre from march 2014 untill july 2016
Data was collected from patient records, hemodialysis unit records and vascular laboratory records
Axilloaxillary anterior chest wall was performed for 4 patients, femoral thigh graft in 8 patients and femoropopliteal bypass in 2 patients
Results: of the 14 patients there were 8 males and 6 females
2 patients passed away during the follow up period
2 patients developed acute occlsion and ischemic events and required thrombectomy
1 patient developed superficial infection which was treated conservatively with antibiotics and dressing
Mean follow up was 18 months, primary patency rate was 85% (2 patients experienced occlusion of grafts in 18 months' period out of 12)

Conclusion: Arterioarterial graft is a good option as a last resort for multi-access failure patientsv

(64)
Altitude Emergencies

Basar Cander MD, (Turkey)

Acute high altitude diseases are observed when the altitude is over 2500-3000 meters. It can be seen in a wide clinical range from fatigue and respiratory distress to life-threatening conditions. It is often observed in people who are interested in mountain sports and tourism. Besides, military personnel may face these diseases due to their profession. High-altitude illnesses are not encountered in humans who continue their daily lives at high altitudes thanks to adaptation mechanisms from creation. The primary factor in high-altitude diseases is that individuals who are accustomed to living at an altitude below 3000 meters are rapidly above this altitude.

The rate of oxygen in the air at sea level is 21%, but as the altitude increases, this rate gradually decreases. At Everest's peak, this rate drops below 10%. Therefore, mountain climbers aiming to climb these heights should perform months of conditioning and acclimatization work. Acclimatization means high-altitude hypoxic and hypobaric adaptation. This problem is overcome by keeping the pressure of the cabin at 1500-2000 meters altitude when flying at 8-10 thousand meters altitude. However, rapid decline in cabin pressure can lead to acute hypoxia syndrome.

Acute mountain sickness, high altitude pulmonary edema, high altitude brain edema, high altitude retinopathy-snow blindness and chronic mountain disease are the main altitude related diseases. In this presentation, the general approach to high altitude diseases will be explained.

(65)
Experience of Scaling up Family Practice in the East Mediterranean Region

Mohammed Tarawneh, MD (Jordan)
Oraib Alsmadi MD

Objective: To improve the quality of primary health care in the EMRO countries, through a comprehensive program, assisting the EMRO countries to improve primary health care by strengthening the public and private provision of these services,

Background: Family practice [FP] is defined as the health-care services provided by family doctors and often supported by a multidisciplinary team; it is characterized by comprehensive, continuous, coordinated, collaborative, personal, family- and community oriented-services and provides comprehensive medical care with a particular emphasis on the family unit. The World Health Organization for Eastern Mediterranean Region Office (WHO EMRO) in collaboration with WONCA is working on accelerating the adoption of family practice in the countries of the Region. This means that the requirements necessary for implementation should be in place: clear policies and strategies; evidence-based information to ensure technical support; engagement of the community; and the necessary mechanisms for patient follow-up

Challenges: The major challenges facing family practice approach in EMRO countries includes diversity of human resources capacity, financing limitations and weak organization. Policy-makers have limited awareness about the concept of family practice, and there is an increasing tendency to rely on expensive technology. Poor logistics management and distribution of health facilities and workforce, lack of public–private partnerships, and a shortage of resources and incentives are major challenges to the proper implementation of a family practice program. Among the biggest challenges are the insufficiency of trained family physicians and the fact that existing training programs are failing to meet the enormous need for those practitioners to support primary care.

Conclusions: Experience from across the world has shown that the family practice approach can increase households' access to a defined package of services at an affordable cost, through trained and motivated family practice teams. Scale up Family Practice in EMRO countries needs trained and motivated family practice teams that can ensure high-quality, continuing and comprehensive primary care services for the individual and family across all ages and both sexes.

(66)
Chemical Hazmat: Management and Hospital Organization

Bruno Mégarbane MD (France)

Introduction: The chemical risk is omnipresent in our modern society resulting from accidents involving industrial plants or military installations, environmental pollution and possible terrorist attack. Methodology: Review of the medical literature on chemical hazmat and lessons learned from experiences like 1995 Sarin gas attack by Aum sect in Tokyo subway and 2001 ammonium nitrate explosion in AZF plant in France. Results: Civilian hazmat may involve various and even rarely used chemicals, by different routes of exposure in non-trained populations. Management is first based on triage. Diagnosis of the possibly involved toxicant is suggested by the history, the toxidrom and the measurement of routinely available biomarkers. The definitive toxicological diagnosis is obtained retrospectively from specialized laboratories. Exposed patients are referred to the hospital that neighbors the scene. Thus, each hospital should be able to handle contaminated patients, with on-site staff, 24x7, safely. Management includes 1)- the rapid recognition of the chemical nature of the hazmat; 2)- the set-up of adequate personnel protective equipment for the caregivers; 3)- the activation of a decontamination chain, based on soap and water wash without delaying or impeding patient stabilization; 4)- the collection of useful medical data to allow seeking advices from specialized authorities (i.e. toxicologists, poison centre specialists), obtaining specific treatments (antidotes) from local or national stores to treat poisoned patients if required. Conclusion: To respond to the population's expectations, hospitals should be efficiently organized, able to provide immediate care and follow-up to contaminated patients, ascertain toxicological diagnosis and inform transparently about the long-term risks.

Keywords:Chemical hazmat; Hospital organization ;Decontamination

(67)
Hypothermia and Heat Illness

Afsin Emre Kayipmaz (Turkey)

Body temperature below 35 degrees is called hypothermia, and it is often confronted by emergency departments as a result of exposure to cold weather conditions. Besides, metabolic disorders, hypothalamic and CNS dysfunctions, drugs, sepsis, skin diseases and massive fluid-blood resuscitation can lead to hypothermia. It is an issue that needs to be emphasized among environmental emergencies because of their ability to drive to life-threatening arrhythmias and particular practices in their treatment.
Similarly, heat illness has also come to the fore as a result of hot weather waves worldwide, especially with the deaths of professional athletes. Heat-related syncope, stroke, exhaustion, rash, edema, and cramps are considered within the scope of heat illness. These conditions arise when the regulation of body against heat disrupted. The stress caused by the environmental temperature is an essential factor in the formation of heat illness. Especially heat stroke is a disease that has a high mortality rate if the rapid diagnosis is not made and not treated. Careful care of the clinician is of paramount importance because the differential diagnosis includes many infectious, metabolic, toxicological and neurological diseases and no specific test for diagnosis.
In this presentation, we aimed to mention about hypothermia and heat illness, special treatment and resuscitation methods, heating and cooling techniques which require an individual approach.

Keywords: Hyperthermia; hypothermia, rewarming.

(68)
High Voltage Electrical Burns/Electric Shock and Lightning

Sadiye Yolcu MD (Turkey)

Electrical Injury
Electrical injuries are divided into high-voltage injuries (>1000 V), low-voltage injuries (<1000 V), and electric arc flash burns, which by definition do not result in passage of current through the tissues.
Electrical burns are seen about 4% to 6.5% of

all admissions to burn units in the United States and for approximately 1000 mortality. Most of the mortal electrical cases and presentations to the emergency departments are related with occupational electric injury. Many cases of electrical injuries eventually involve litigation for negligence, product liability, or worker compensation.

Electrical burns are severe when high voltages are involved, because only a fraction of a second of current flow is necessary for severe damage to occur.

The emergency department evaluation (airway, breathing, circulation) and resuscitation for major trauma victims should be provided. Spinal immobilization should be maintained during resuscitation until adequate imaging and examination can be done.

Cardiac arrhythmias can be treated according to accepted ALS guidelines. ED cardiac monitoring should bemade for the patients with high-voltage injuries as well as all symptomatic patients. Cardiac complications are more common in patients with high-voltage injuries and in those with loss of consciousness, and include ventricular and atrial dysrhythmias, bradydysrhythmias, and QT-interval prolongation. Similarly patient should be evaluated for brain injury, spinal cord injury, peripheral nevre injury and other musculosceletal injuries.

Lightning Injury

The incidence of lightning injury is not known very well but it is about 1000 injuries each year in the U.S. and is the second leading cause of weather-related death, with approximately 100 reported deaths each year. Currently, it is estimated that lightning is fatal in 1 of 10 lightning strike victims. Participants in sports and recreational activities are common victims; mountain activities, golf, ball field games, and water activities account for the largest numbers of fatalities and injuries. Outdoor workers also are att risk. It may effect a group of people instead of only one person. The estimated voltage is around . 10 million to 2 billion V.

For these patients emergency physicians can use advanced cardiac and trauma treatment principles, including assessment and stabilization of the airway, breathing, and circulation. Lightning victims in cardiac arrest have a better prognosis than those in cardiac arrest from coronary artery disease, so aggressive resuscitative efforts are indicated. A careful secondary examination should be done to detect occult injuries. Cutaneous burns may help identify the current path and suggest potential organ injury. Initial ancillary studies include complete blood count, serum electrolyte levels, creatinine level, blood urea nitrogen level, glucose level, creatine kinase level, urinalysis, and ECG.

(69)
Chemical Weapons: Risks and Poisoning Management

Bruno Mégarbane MD (France)

Introduction: The use of chemical warfare agents in Syria, the murder of the North Korean President's brother of and the attempted murders of ex-Russian spies made the headlines. Due to the relative easy synthesis of the agents involved and the presumed intention of terrorists to cause high numbers of victims, chemical warfare agents have to be regarded as a dangerous threat for the population. Methodology: Review of the Medical literature on chemical weapons. Results: Chemical weapons include incapacitating (like diphenylchloroarsine) and lethal agents subdivided in several groups: nerve agents (like Sarin), blister agents (like lewisite and nitrogen mustard), blood agent (cyanide) and choking agents (phosgene). Although used during the World War I, mustard gas-induced long-term consequences are still concerning. Management on the scene is consistently difficult and requires specific therapies. Exposed patient decontamination and caregiver protection are critical issues. Various oxime types are licensed despite uncertainties of their usefulness in organophosphorus pesticide poisonings. The Syrian civil population was affected strongly by Sarin use requiring WHO involvement and preparedness to act within a worst case scenario. Facing high time pressure, adequate planning and preparation are mandatory. As chemical warfare is extremely toxic and highly reactive compounds, verification of the original compounds in victims appears hardly possible. Advanced analytical techniques are necessary for identification of metabolites or reaction products. Adequate sampling, storage and transport under maintenance of the chain-of-custody are prerequisites for adequate analysis to be performed at specific laboratories. Conclusion: Lessons learned from the exceptional events substantially contribute for optimized preparedness.

Keywords: Chemical weapon; Organophosphorous; Decontamination

(70)
Thermal and Chemical Burns

Sadiye Yolcu MD (Turkey)

Approximately 450000 of burn patients are treated in emergency department in the USA. Burns are estimated to cause nearly 180,000 deaths annually worldwide, mostly in low- to middle-income countries.
Most of the burn patients are between the age of 18 – 35 and majority of the victims are male. Older patients have a higher death rate.
Burn injuries have local and sistemic effecks acoording the size and locations of the burn. Some physiologic effects of the burns are; local tissue injury, fluid and electrolytes imbalance specially sodium and patassium pumb disruption, metabolic acidosis, depression of myocardial contractility (>60% of body surface burned), increased systmeic vascular resistans. Many factors can influence prognosis, the severity of the burn associated the patients's age, comorbid conditions and acute organ failure are most imprtants.

(71)
Emergency Medicine in Jordan where we stand?

Leqaa Raffee MD (Jordan)

The history of Emergency medicine in Jordan has started since the early of 1980s. It was offered as a service in the hospitals. The awareness of this branch of medicine has increased over the time due to several considerations including the increased importance of medicine in Jordan, and EM was one of branches that witnessed such an importance. The other consideration was accompanied with the modernization movement that covers Jordan and urbanization occurred in Jordan which makes a pressure over healthcare providers to cope with the emerging challenges facing the country as a whole. Health policy decision makers have realized the need for making EM as an integrated entity, and academic programs have been initiated at two levels: Royal medical Services and Ministry of Health. Jordan is facing now a problem of increasing population resulting from normal increased population ange d from receiving large numbers of refugees, particularly Syrian refugees, accompanied with economic issues, which makes barriers in the way of improving EM services. In the nearest future, Jordan has to offer the financial solutions to cope with increased utilization of EM services and to engage more skilled staff in this branch of medicine. The continuity of graduating high skilled academic persons is still another challenge.

(72)
Management of Mass Injuries- Bombing, Mass Shootin

Afsin Emre Kayipmaz (Turkey)

Today, chemical, biological, radioactive and bombed attacks targeting the masses are one of the most significant problems faced by emergency departments. Especially after the September 11 events, the medical management of the mass casualty attacks became important. Terrorism-related bombs exploding all over the World are shown as the most important reason for the explosion casualties. Mass casualty attacks cause morbidity and mortality in a significant way due to the multi-trauma they produce, as well as the psychosocial effects they create in communities. The primary damage of the explosion is emerging due to its powerful effects on tissues, and it affects the hollow organs such as ears, lungs and gastrointestinal tract. Secondary damage occurs as shrapnel and splashed foreign bodies directly damage the tissues. Tertiary damage occurs with the explosive pushing the victim into the air and with the static object hit by him/her. Quaternary damage is caused by burns, released chemical agents or by inhalation of smoke.
Since there are a large number of patient applicants in mass casualty attacks, efficient use of resources and prioritization are crucial. At this point, emergency physicians play a significant role in the triage of these patients.
Patients with airway obstruction, respiratory distress, hemodynamic instability, unconsciousness, vascular injury and extensive second-third degree burns should be considered as serious injuries and should be given priority.
In this presentation, necessary information about triage, clinical evaluation, treatment and safety of emergency department personnel and legal issues during the mass casualty attacks with bombs and explosives will be shared.
Keywords: Bombs; mass casualties; terrorism.

(74)
Experience RMS Emergency Medicine Massive Casualty Producing Events

Ahmad Al-Dhoun MD (Jordan)

The Royal Medical Services is always ready to deal with surprise incidents through advanced plans and programs that are periodically reviewed for all departments. I will mainly talk about the role of the emergency department in dealing with massive casualties such as the large number of traffic accidents.
The Royal medical services Emergency department established an organized plan to be followed when dealing with such causlities, keeping in mind professional timing important without interfering with the efficacy and routine of our medical staff when dealing with such casualities and that is another challenge that we deal specially when distributing such urgent cases with full a preparation and authority.

(75)
Approach to the Multiple Trauma Patient

Basar Cander MD, Ph.D Turkey

Trauma has been shown to be one of the main reasons for urgent care anywhere all around the World. Traffic and work accidents are at the forefront of major traumas. Major trauma is the leading cause of death in patients under 45 years of age. Therefore, a practical, multidisciplinary approach to major trauma patients is essential. At the same time, the quality of healthcare provided before the hospital can prevent mortality and morbidity.
There are five critical stages for the trauma patient. These are the diagnosis and treatment of life-threatening injuries, the differential diagnosis of life-threatening conditions, the most common and most pathologic severe priorities, followed by pain management and vital signs.
Approach to a major trauma patient should be followed by a recommendation for advanced trauma life support guidelines. The two basic procedures that the guide suggests are primary and secondary surveys.
It is aimed at rapid treatment by detecting the life-threatening situations in the primary survey within minutes. Airway management, cervical stabilization, maintenance of respiration, assessment of the circulatory system and neurological disability, complete removal of clothes are the components of the primary survey. When the primary survey is completed, the patient's blood pressure, ECG, and oxygen saturation should be monitored.
In secondary survey, the aim is to evaluate the patient in detail from top to bottom. The application of the necessary laboratory tests and imaging methods with a thorough and systematic examination is indispensable in the secondary survey.
In this presentation, general approaches to multi-trauma patients will be discussed.

(76)
Stop the Bleed - Scene / Prehospital Management of Bleeding Patient

Sedat Yanturali MD (Turkey)

As we know, bleeding is the leading cause of death in trauma patients. Internal bleeding is the main cause of death in blunt trauma patients, while external bleeding may main cause of death caused by penetrating trauma. Increasing terrorist incidents and bombings in recent years have been at the forefront of medical conditions that health workers have had to deal with. The casualties wounded in these events are almost a multiple trauma patient and such events require a full trauma care. Majority of these casualties have penetrating injuries. It was thought that most of penetrant trauma-related deaths were due to the external bleeding, there are opinions that stopping this bleeding in the prehospital period may reduce mortality. And also the papers have been published in this context. Detection of life-threatening external hemorrhages, treating them as soon as possible with appropriate methods such as compression, tourniquet, packing etc. In recent years, It also emphasized that the issue of stopping of external hemorrhages should be known not only for health care providers, that it is a subject that should be known by the public. For these reasons, a number of campaigns have been initiated within the public. The main purpose of these studies is that no one should die from uncontrolled bleeding. The campaigns recommends that all citizens learn to stop bleeding. With these trainings carried out, it is aimed that no one should die from uncontrolled bleeding. This presentation will focus on prehospital management of bleeding patient,

basic techniques and new medications such as Tranexamic acid (TXA) to reduce bleeding.

(77)
Trauma care in Jordan Role of National Emergency Medical Services in Educational center RMS.

Hazem A. Ajarmeh RN, PhD (Jordan)

Background: Trauma is the leading cause of death worldwide. According to the WHO, 5.8 million deaths annually result from injuries mainly traffic accidents. Jordan was classified as the fourth in the Middle East in car accidents. Most of the deaths occur before patients reach the hospital which can be prevented with appropriate prehospital and subsequent hospital emergency care. The deaths caused by injuries have an immeasurable impact on the families and communities affected, in addition to pain, grief and social suffering, these accidents cost countries 2% of their gross national products. The costs of road accidents in Jordan were estimated to be about $ 146.3 million in 1996 and increased to $ 440 million in 2010. Males and those between 15 and 44 years old are the most affected.
Trauma care status in Jordan: Emergency trauma care has three components: care at the site of accident, care during transportation, and care upon arrival to the hospital. Commonly, prehospital care including basic and advanced care and transportation is provided by the civil defense. However, it is also common that first responders could be the bystanders who are available at the scene who could unintentionally do more harm to the victim due to bad handling and transportation. At the emergency department in which a fast and organized response following internationally established protocols and guidelines is essential to decide rapidly which other life-saving interventions are required. Unfortunately, Health care in developing countries has not traditionally focused on emergency trauma care and skilled professionals' capacity building through training. NEMSEC: The National Emergency Medical Services Educational Center (NEMSEC) was established in 2004, the main aim of the center was to provide the RMS with paramedics who are able to provide effective prehospital care. Since then, many programs have been started such as advanced, intermediate and Basic EMT programs, Tac-Medic and TCCC courses to provide adequate training on the basic prehospital care to the solders. In 2009, the center was accredited by the AHA to provide CPR courses including BLS, ACLS, PALS, and Heart Saver course. Additionally, the NEMSEC has started in 2014 to conduct trauma courses including ATLS courses for Physicians, PHTLS courses for physicians, paramedics and nurses and ATCN courses for nurses. All these courses were aimed at capacity building of all those involved in emergency care including health team members in addition to the public in general in order to enhance the quality of emergency care provided at the different levels in the sequence from the field to the hospital.

Conclusion: Despite increased global awareness of the impact of trauma on the countries, it has been noticed that the field of trauma care and emergency medicine in Jordan has not progressed uniformly and it is still at a primitive stage. Active steps should be taken toward establishing laws and policies that govern the qualifications, the training requirements and clear job description of those who are involved in providing trauma care.

(78)
Diagnostic Approach to Trauma Patient with Shock

Behçet AL, MD (Turkey)

According to the most current information from the World Health Organization (WHO) and the Centers for Disease Control (CDC), more than nine people die every minute from injuries or violence, and 5.8 million people of all ages and economic groups die every year from unintentional injuries and violence. Improvements in injury control efforts are having an impact in most developed countries, where trauma remains the leading cause of death in persons 1 through 44 years of age.
Shock is an abnormality of the circulatory system that results in inadequate organ perfusion and tissue oxygenation. Hemorrhage is the most common cause of shock in trauma patients. Soft tissue injury, even without severe hemorrhage, can result in shifts of fluid to the extracellular compartment. The response to blood loss must be considered in the context of these fluid shifts. The primary and secondary surveys, usually provides sufficient information to determine the causes.
In initial management: The first step Is to recognize presence of shock. The second step is to

identify the probable cause and adjust treatment accordingly. Diagnosis of shock can be missed when only a single parameter is used. So, heart rate, blood pressure, skin perfusion, mental status arterial blood gas
measurements of Ph, Po2, Pco2, oxygen saturation, base deficit, end-tidal Co2, serum lactate level must be paid attention. Sources of potential blood loss must be quickly assessed by physical examination and appropriate adjunctive studies. The diagnosis and treatment must occur almost simultaneously.
The priority of initial management is stopping the hemorrhage and replace the volume loss (1 L for adults and 20 mL/kg for ped pts). We must identify evidence of adequate end-organ perfusion and tissue oxygenation. Achieving a normal BP is not a substitute for definitive control of bleeding.
The main treatment of traumatic shock is Damage Control Resuscitation that includes permissive hypotension, hemostatic resuscitation and damage control surgery.
More fluid increases venous pressures that causes clot dislodges, dilutes clotting factors, cause hypothermia, and volume overload that causes ARDS, compartment syndrome, and edema. So, the current recommendation is permissive Hypotension with a goal of MAP 40-50, SBP of 80. There must a compromise between maintaining perfusion & avoiding negative effects of IVF boluses. The last ATLS guideline strongly suggests early hemorrhage control and blood product transfusion. But still says 1-2L of NS before definitive bleeding control. Hemostatic resuscitation must include giving blood early that must resemble to whole blood, anticipating and preventing coagulopathy, revising known coagulopathy, and treating complications (transfusion associated circulatory overload, Transfusion-related acute lung injury, Hypocalcemia, Hypothermia, Over-transfusion). Every center has to have a massive transfusion protocol. The best one is still 1:1:1 vs 1:1:2 (RBC:FFP: Platelet). TXA is still used with loading dose 1 gram/10 min then infusion 1 gram/8 hours to prevent coagulopathy.
As a summary: Damage Control Resuscitation suggests less fluids, more factors.
1.Permissive Hypotension
2. Hemostatic Resuscitation
- Early blood
- 1:1:1
- Anticipate & Treat Coagulopathy
- Reverse Known Coagulopathy
- Awareness of Complications

3. Damage Control Surgery

(79)
Principles of Blood Transfusion and Fluid Treatment in Trauma

Sadiye Yolcu MD (Turkey)

After a traumatic injury primary survey is needed to reduce morbidity and mortality. The transfusion decision is taken according the hemodynamic status of the patients. We should always consider hemorrhagic shock in a hypotensive trauma patient. Hemorrhage up to 15-30% of total blood loss may be assosiated with pulse rate to 100-120 (beats/ min) and a normal in blood pressure. However when the hemorrhage is up to 30% of blood loss pulse rate incerases to 120-140 (beats/ min) and starts to decresed blood pressure. For these victims we should place IV lines and infuse 2L of Ringer lactate or normal saline and obtain CBC including blood type and screen for laboratory.
Revaluate hypotensive patients and if there is no improvement, then transfuse type O blood. Always remember that patient's who need massive tranfusion generally require urgent surgical intervention to control hemorrhage. In a major trauma who needs massive transfusion 1:1:1: protocol is used. 1:1:1 transfusion protocol is platelets, packed red blood cells and fresh frozen plasma

(80)
Toxicological Analysis: Is It Useful for Poisoning Management

Bruno Mégarbane MD (France)

Introduction: Poisoning diagnosis mainly relies on history and toxidrom identification while management is based on supportive care and antidotes. Methodology: Review of the French Societies of Critical Care Medicine and Clinical Toxicology guidelines [1,2]. Results: Toxicological analysis aims at identifying and/or quantifying the involved toxicants to establish diagnosis, evaluate severity and monitor treatment effectiveness. Clinicians and biologists should agree which tests should be available and at which time. In emergency, toxicological tests are useful if obtained within 30-60 min, as rapidly as the standard biochemical tests. More sophisticated tests can be obtained later to optimize initial

decisions (if available within 4-24h) or allow definitive retrospective diagnosis for medico-legal or scientific issues (if available >24 h). Blood analysis is more useful since concentrations can be correlated with the presentation, whereas urine analysis provides information on exposure within the previous 24-48h as cumulative data, if the toxicant is rapidly cleared from the blood. For retrospective diagnosis of exposure like in drug-facilitated sexual assault, hair remains the only available matrix. Plasma and urine samples should be collected on admission for banking in severe poisonings or uncertain initial diagnosis to allow further adequate investigations. Toxicological analysis usefulness is expected with toxicants exhibiting concentration-related effects or responsible for organ injuries. Decision to administer N-acetyl-cysteine in acetaminophen poisoning is based on the interpretation of serum acetaminophen concentration using the Rumack-Matthew nomogram. Recently, mass spectrometry-based screenings become available; however, their methodological limitations should be known to avoid misinterpretation. Conclusion: Toxicological analysis remains complementary of the clinical approach.

References: [1] Mégarbane B, Rev. Prat. 2008,58(8),871-81; [2] Bartoli M, Ann. Biol. Clin. (Paris) 2012,70(4),431-50.

Keywords: Toxicological analysis; Toxicological screening; Poisoning

(81)
Evaluation of difficulties emergency physicians face during consultation process

Afsin Emre Kayipmaz, MD, Asst. Professor, Ishaaq Sakwa Eshikumo, MD, Cemil Kavalci, MD, Professor Turkey

Objectives Consultation is considered among main patient care procedures in emergency medicine. It is obvious that an effective consultation process will contribute to diagnosis and treatment of the patient. Although physicians work for a single common purpose and obey prementioned rules stressful, crowded, and tense environment of emergency may cause some problems among physicians. At this point, studies in our country that reveal difficulties of emergency doctors in the consultation process and help to provide recommendations for a solution are needed. The aim of this study was to detect difficulties of emergency doctors during the consultation.

Methodology Physicians were reached by e-mail groups, social media, and one-to-one contact and electronic questionnaires including 22 questions were filled by volunteers. The questionnaire was designed to be filled anonymously by volunteers.

Results and Discussion 307 emergency physicians participated in our study. Mean age of the participants was 36.7±7.64. 53.1% of the group was males and 46.9% were females. We detected that the branch emergency physicians most commonly had problems was Chest Diseases (46.6%). According to personal observations of emergency, physicians problems were more common on the weekends (76.2%) and more commonly with consultations requested between 24:00-08:00 hours (67.1%). To the question whether they had a verbal-physical conflict with consulting physicians 73% of emergency physicians answered to have verbal conflict and 16.3% answered to have physical conflict.
ConclusionFor consultation process to be more professional both requesting and consulting physicians should be educated. In addition, it is possible to minimize the problems by increasing mutual communication skills.

(82)
Interventional bronchoscopy in king Hussain Medical Center (KHMC) Jordan; methods evaluation and comparison

Raja Alkhasawneh, AL Momani Jafar , Sulihat Adnan, Najada Mohamad, Obidat Laith

Objectives In this study our aim is to compare sample adequacy obtained using two of the least invasive techniques blind TBNA and EBUS TBNA that are routinely used for obtaining tissue samples for diagnosing mediastinal and hilar masses at King Hussein Medical Center KHMC. Methodology 73 patients underwent diagnostic interventional bronchoscopy for mediastinal and hilar mass in the period between January 2015 and March 2017, the p value was calculated using the two sample proportion test to identify difference in the Population Proportions.

Results and Discussion EBUS TBNA technique shows to have a higher diagnostic yield 79 percent compared to blind TBNA technique 65 percent, although statically P value equals 0.2 show no significant difference between the two technique, Still EBUS TBNA has an advantage over the blind TBNA especially for small and deep station lymph node or masses because It is real time visualization during sampling and helps to avoid any vascular injuries, also decreases the need for another attempt of sampling.

Conclusion Despite our short experience in this field we have excellent results both methods of interventional bronchoscopy techniques that are carried at KHMC are efficient and effective Accordingly we recommend using both interventional bronchoscopy technique as a standard procedure rather than the VAM or VAT, where it will help to minimize the number of open surgeries, complications and longtime hospital staying, deciding which interventional technique to use should be based on each individual case scenario.

(83)
The Emotional Impact of Mental Illness on Mental Health Providers

Raafat Aburumman MD, Maher Alasassleh MD, Amjed Jumaean MD, Jed magen Professor DO.

Objectives Introduction: Mental health providers provide care for such type of patients who are suffering from life threatening illnesses and they are exposed to high level of stress and traumatic experience which may evoke psychological and emotional effect on them. Since people are different in coping skills and expressing emotion, mental health providers as a human beings coping and expressing in different ways.

Methodology: descriptive cross-sectional design used. Convenient sample of mental health providers (psychiatrist, psychiatric nurses, psychologist, social workers, and occupational therapist) were selected. Structured questionnaire developed by the researcher was used to collect the data via online.

Result and Discussion: hundred and sixty eight mental health providers and majority of them between age of 30-39. 45% of them were males and rests of them were female. Majority of them were Arabian (53,1%), followed by American (27,71%), Asian 14,46%, African 3,61%, European 1,20%.Medical doctors were 44,91%,Phd 23,95% ,MA,MS 15,57%,BS 15,57%. Overall, the study showed that emotional impacts of mental illness were different with regard to ethnic group, and gender. American providers more concern about suicidal attempt 80%, Arabian 23%, sexual abuse 28% among American, 31% among Arabian. We compare the emotion that evoke to some mental illness and we found that frustration, empathy, Anger and Sadness. Regarding coping mechanism among both groups , American prefer to talk to seniors 100% and talk to spouse 62%, wheel Arabian 61 % talk to seniors and 32% talk to spouse.

Conclusion Conclusion: the study confirm what are mention in literature regarding emotional impact of mental illness on mental health providers. Culture and gender differences play an important role in coping and emotional reaction.

(84)
Pulmonary Complications Secondary to Immune-Checkpoint Inhibitors

Hasan Ahmad Hasan Albitar, Alice Gallo De Moraes (USA)

Objectives Immune related adverse events (IRAEs) have emerged as a serious clinical problem with the use of immune checkpoint inhibitors (ICI). Our objective is to identify the rate of pulmonary complications in patients treated with ICI at our institution and to determine factors that could be associated with an increased risk of immune-mediated pulmonary complications.

Methodology All oncology patients diagnosed with pulmonary complications secondary to ICI at Mayo Clinic Rochester from January 1st 2012 to October 15th 2017 were reviewed. Demographics, comorbidities, smoking and oncologic history were analyzed.

Results and Discussion A total of 14 patients developed pneumonitis secondary to ICI. Nine were men (64%); median age was 65.5 (IQR 48-86). All patients had stage IV disease. The most common malignancies were melanoma (43%)

and non-small cell lung cancer (21%). Agents utilized included: pembrolizumab, ipilimumab, atezolizumab and nivolumab. Nine (64%) patients had a positive smoking history and 8 (57%) were obese (BMI>30). Most cases had grade 2 pneumonitis (57%). All cases of grade 3 pneumonitis required endotracheal intubation and a prolonged course of steroids (>30 days). Ten (71%) patients received prior radiation therapy. The median time from initiation of ICI to pneumonitis diagnosis was 3 months.

Conclusion All patients affected by ICI pneumonitis had stage IV disease. Most common malignancy related to ICI pneumonitis was melanoma. The most important risk factors included smoking history, prior radiation therapy and obesity. All cases of grade 3 pneumonitis required ICU admission and intubation. Larger studies are required to determine causality.

Keywords pneumonitis immune-checkpoint inhibitors immune related adverse events immunotherapy

(85)

Neonatal Infant Pain Scale Application, Documentation, and Their Impact on Non Pharmacological Pain Management Utilization

Effat Al-Maaitah, RN,MsN , HalaObeidat ,RN,PhD, DareenMahadeen,RN

Objectives To evaluate the effectiveness of a comprehensive educational program for increasing the documentation of pain assessment in newborn by application of Neonatal Infant Pain Scale (NIPS) as well as the frequency and documentation of non-pharmacologic pain management utilization following heel lances, venipuncture, and lumber puncture.

Methodology Quasi-experimental longitudinal design study was conducted, data extracted from a period of time immediately prior to the implementation educational intervention done for 20 nurses. Another sampling was accomplished approximately one month post-program implementation. The final sampling occurred after 4months. The number of documented pain assessments and nonpharmacologic interventions were collected via a Chart Audit Tool that was created by the researcher from 80 newborns cover sheet (CPRS) that were admitted directly post delivery to the special care nursery unit in KHMC during the three time periods. Paired t test in SPSS version 21 used for data analysis.

Results and Discussion: p-value.000 <o.o5 and the absolute value of the computed paired t-test is 5.881 which is greater than the critical value of 2.042 it can be concluded that the proportional differences in documented pain assessment and nonpharmacologic interventions for: Time Zero to Time two was statistically significant

Conclusion Nurses' pain knowledge and documentation of assessment skills were improved, more education and follow-up is needed also to improve the adherence to the mandated policy regarding pain assessment and management

(86)

Degree of Patient's Satisfaction at King Hussein EmergencyDepartment in Royal Medical Services

Enad Al Sharayaa, RN, Alaa Aldeen Al jaraedeh, TahanyManaseer, Asmaa Al zuod, Enaam Al Badaineh, AbeerAlzyoud.

Objectives The aim of this study is to measure the degree of patient's satisfaction at the king Hussein emergency department in Royal Medical Services by using Brief Emergency Department Patients' Satisfaction Scale (BEPSS).

Methodology A cross-sectional design used, A sample: 300 patients was selected (every shift 100 patients) at the king Hussein emergency department in Royal Medical Services from the date of March 2018 to June2018. The data were collected by using valid and reliable questionnaire of (BEPSS) and it contain 20 items that score 1 to 4 and are categorized in 5 domains of 4 point Likert scale.

Results and Discussion The findings of the study reveals that the patients were highly satisfied about services of health care at KingHussein Emergency Department in Royal Medical Services; the total mean was high (3.202). Moreover, emergency department staff (Mean 3.28), emergency department environment (Mean

3.61), physician care satisfaction (Mean 3.38), but the general patient satisfaction (Mean 3.07) the degree was moderate, also patient's family's satisfaction (Mean 2.67) was moderate. The 20 item were statically significant (p?0.05) using Pearson `R Correlation.

Conclusion The findings show that the patients were highly satisfied generally , but the domain of general patient satisfaction and patient's family's satisfaction were moderate, it related to waiting time specially at the second shift because of increasing the number of patients at that time and usually the second shift is more load than the first and night shift. It is recommended to measure the degree of patient's satisfaction for other hospitals of Royal Medical Services.

(87)
Communities for Sustainable Development: the role of Nurses and Midwives

Sheila Tlou, RN. PhD. (Botswana)

In the global quest for universal access to health for all, community participation is an essential precondition for effective disease prevention, treatment and care programs. Community norms and values have a significant role in determining lifestyle choices, values, beliefs and prevention practices of individuals. Indeed, evidence from HIV/AIDS shows the significant impact when communities take leadership of health programs, leading to increased access and better health indicators.
This presentation looks at nurses and midwives' roles in working with and supporting communities for the achievement of Sustainable Development Goal 3 which emphasizes 'Ending the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combating hepatitis, water-borne diseases and other communicable diseases'. Communicable and noncommunicable diseases need innovative delivery mechanisms and partnerships to ensure no one is left behind, especially young people and key populations. The focus should be on community programs that address discrimination, human rights and gender inequality.

Advocacy activities by nurses and midwives should incorporate regular presentation of scientific evidence and bringing decision makers closer to the realities and lived experiences of communities. At policy level, nurses and midwives should ensure their own participation in the development of algorithms, adherence guidelines, policy guidelines, standard operating procedures, training and facilitation materials, administrative and other tools for the implementation of treatment cascades of linkage to care, treatment and retention in care for communicable and non-communicable diseases.

(88)
Assessment of Trainees (Residents and Fellows)

David Nicholl MD (UK)

Dr Nicholl is a former vice-chair of the Neurology SAC (UK training committee) and is the Honorary Secretary to the Association of British Neurologists. This lecture will review the changes in methodology of assessment of trainees over the last 10 years from the perils of Modernising Medical Careers to advances in the use of hi-fidelity simulation. He will look at what lessons can be learned from assessment (supervised learning events, direct observation of procedures and multi-source feedback) as well as tips for a good educational supervisor, and how to identify the poorly performing trainee. He tweets on medical education via @TOSStudyGroup.

(89)
Innovating Health Care through Global Collaborations

Gregg Davis (USA)

Background Dignity Health is one of the largest U.S. health systems, offering a 22-state network of over 9,600 physicians, 62,000 employees, and more than 400 care centers including hospitals, urgent and occupational care, imaging centers, home health, and primary care clinics. Dignity Health International ("DHI") is an affiliate of Dignity Health focused on expanding Dignity Health's mission and strategies on an international level through collaboration and partnerships.
DHI has created a variety of products and services that leverage Dignity Health's domestic capabilities to deliver compassionate, high-quality health services across international communities with

demonstrated success in education, technology, and advisory services.

Methodology & Results Case Study #1: Executive Leadership Development Pilot with Saudi Arabia's Armed Forces Military Hospitals Description: DHI, in partnership with the California School of Health Sciences, developed a six-month pilot program for executive health care leadership development.

Results: All pilot program participants reported gaining invaluable experience with their American hospital executive counterparts, enhanced confidence in using the knowledge, skills, and tools acquired during the program, a strong desire to advance within their given fields of specialty, and a desire to continue to collaboratively improve health care delivery locally in the kingdom of Saudi Arabia.
Case Study #2: Innovating Health Care Delivery in China

Description: At the invitation of a large Chinese company interested in entering the health care market, DHI has served as an advisor on the development and implementation of a health care delivery and population health strategy.
Results: During the fall of 2018, one of several western-style health care campuses in China will open in Hefei, with a variety of clinical programs and technology solutions designed to meet the needs of the local community and the larger region.

Conclusion Dignity Health International ("DHI") seeks to enhance access to high-quality health services across international communities. The presented case studies demonstrate two instances of how DHI has been able to leverage Dignity Health's capabilities to support the education/ training of future health care leaders, and expand local access to high-quality care in China through innovative collaboration in clinical service planning, hospital design, and sharing of best practices.

(90)
Investment in Healthcare: The Return on Investment

Fawzi Al-Hammouri, MD (Jordan)

Investment in health is multi-faceted, investment in human capital, investment in infrastructure, investment in community health awareness, all these are essential for all countries and to be able to provide healthcare services to its people and this can be measured by certain indicators such as life expectancy, maternal mortality rate, infant mortality rate and others.
Jordan's healthcare sector is one of the most important economic pillars for the country. In 2015 the healthcare expenditures exceeded 2.25 billion JDs which accounts to 8.44% of the GDP, noting that around 31% is by the private sector. Certain countries "Jordan as an example" invests in healthcare services to improve and sustain a healthy population and to generate income to the country through attracting foreign patients (medical tourists) which is considered a very important source of foreign currency.
The main reason why Jordan became a medical tourism destination is because of all investments in the healthcare system. The total direct investments in the private hospitals in Jordan reached to 3 billion US$ and more than 60% of the hospitals are private, this indicates the importance of the sector as a strong pillar for our economy. Although Jordan is relatively a small country, it receives more than 250,000 foreign patients annually and generates around 1.2 billion USD.
Medical tourism has an economic impact on different sectors, 30-35% of the total income goes directly to the healthcare sector, and 60 – 65% of the income is generated to other sectors including hotels, malls, transportations, airlines and other sectors.
The return on investment (ROI) in healthcare is an essential indicator of the success of investment in this sector and its impact on the country and the region. In addition to monitoring the ROI, its important in the healthcare sector to look at different measures not only the economic impact "STEPS model" Satisfaction of the stakeholders, Treatment and quality of care, Electronic information and using evidence based guidelines, Prevention and patient education and Savings from improvements such as reduced length of stay, increase in admissions.

(91)
Advanced Scope of Practice for Health Care Professional to Meet the Challenges of Universal Health Coverage

Muntaha Gharaibeh, RN, PHD

Health systems worldwide are faced with workforce challenges in primary care as they strive toward achieving or maintaining universal health coverage. Shortages or geographical imbalances of primary care physicians, nurses and midwives exist in many countries. Universal health coverage aims are to strengthen health care delivery systems to promote access to care and improve health outcomes especially for disadvantaged populations, involves the financing of health systems and to ensure equitable access to these services without risk of financial hardship.
Many countries, including Jordan are affected by HRH challenges which will unlikely help in achieving the goal of universal health coverage. This presentation highlights main approaches for investing in HRH that should be made in both implementing policies and approaches of proven efficacy such as expanding and extending the role of healthcare professionals to meet the challenges of achieving global agenda for health and advanced practices as essential component of country level health human resources.
Main approaches under discussion are task shifting, skill mix, training, retention policies and scaling up workforce production for the continuum towards population-specific universal coverage and promoting competence and trust.
These approaches must be more carefully and contextually studied to extrapolate findings to support the implementation of such approaches to the Jordanian context; learning not only what works (or not), but how, for whom, and under what context. Furthermore, the role of research will be examined and focus on examining these approaches, and determinants their effectiveness to cover the persisting evidence gaps. The presentation will highlight a group of lessons and interventions that can be applied for a comprehensive universal health coverage in Jordan.

(92)
Medico legal Issues: How Much Do We Know

David Nicholl (UK), MD

There is increasing concern regarding the use of the criminal law in healthcare, in the UK over £1.7billion is spent on litigation in healthcare. The recent case of Dr Hadiza Bawa-Garba, who was convicted of manslaughter and then struck off the medical register for an 'honest error" has caused widespread concern amongst the medical profession in the UK and beyond. Dr Nicholl has written extensively on the implications of this case in the BMJ, for medical education and also in relation to patient safety. In this talk, he will discuss what can be learned from this case and whether the development of a so-called 'Just Culture', as has happened in other high-risk industries, is a better way forward to improve patient care when errors occur, whilst also recognising the harm that families and patients can be exposed to.

(95)
Colorectal Cancer Surgery Audit

Ahmad Uraiqat MD (Jordan)
Mohammad Al Lababdeh JBS, Fadi Maaitah JBS, Abdallah Abu Anze JBS, Mahmood Sawalgah JBS.

Objective: To present the surgical outcome for all patients those were treated at the colorectal unit in KHMC.

Methods: All patients who underwent colorectal resection, either laparoscopically or by open method were included in our audit. Demographics, site of tumour, type of surgery (laparoscopic vs open), hospital stay, readmission rate, complications and mortality were analyzed.
Results: Between January 2016 and April 2018 one hundred and eighty four patients were operated. There were 91 males (49.4%) with a mean age of 59.8 years (range 21-84 years). Mean BMI 27.5. Fifty percent of tumours were rectal and 60 cases were operated laparoscopically. 12 patients had pelvic exenteration. Mean hospital stay was 4.4 days (range 1-11 days) with readmission rate of 18% (33 patients). Complications rate were as follow: wound infection 15 cases, dehydration 4 cases, urine retention 3 cases ,bleeding per rectum

1 case, pleural effusion 1 case, postoperative ileus 4 cases, wound dehiscence 2 cases ,DVT 1 case ,enterocutaneous fistula 1 case, parastomal hernia 1 case and anastomosis leak 2 cases. Thirty day mortality was 3.8 % (7 cases).

Conclusion: The colorectal unit at King Hussein Medical Center manages a large bulk of patients with colorectal malignancies. Younger age at presentation mandates a screening program for familial and sporadic tumours. High readmission rate can be explained by the introduction of the Enhanced Recovery After Surgery (ERAS) program in 2014. Also the main bulk of 30-day mortality was due to pelvic exenteration surgery (3/ 12 patients).

(100)
Bariatric Surgery; Our Experience at King Hussein Medical Center.

Mohammad Hroot, MD, Ibrahem Ghwari, MD Omar Shawabkeh, MD, Talal Jalabneh, MD, Omar Abu Zaytoon, MD, Mohammad Hunati, MD, Wa'el AlNa'ssan, MD, FACS.

Objective: -To evaluate safety, efficacy and outcome of laparoscopic bariatric surgery at King Hussein Medical Center.

Method: -The records of more than 2400 patients admitted to King Hussein Medical Center between March 2006 and August 2017 were reviewed, 2080 of them were enrolled in the study, 320 patients were excluded due to lack of follow up. Laparoscopic gastric banding, sleeve gastrectomy, and Roux-en-Y gastric bypass, were the procedures done for our patients and their BMI ranging from 35-78kg/m2, with female predominance.
Few other patients underwent single incision sleeve gastrectomy, and conversion of VBG to laparoscopic RYGB.
The operative time, efficacy, hospitalization, and complications were discussed.
Results: - Gastric banding was done for 433 cases, sleeve gastrectomy for 1015 cases, and 630 cases of RYGB.
Gastric banding average operative time was 50 minutes, ranges from 20-120 minutes.
Sleeve gastrectomy average operative time was 75 minutes, ranges from 55-130 minutes.
RYGB average operative time is 115 minutes, ranges from 90-350 minutes for.
Average hospital stay was 3 days ranging from 1-7 days.
Average weight loss for gastric banding is 41%, for sleeve gastrectomy is 73%, and for RYGB is 82% and the average weight loss for all our procedures were 65.3% after almost 18-24 months of surgery.
Post operative complications we have leak in 4 cases of sleeve, and 3 cases of RYGB.
Slippage in gastric band occurred in 9 cases.
Mortality in 3 cases, 2 of them post leak 1 post sleeve gastrectomy, and 1 post RYGB, and 1 case post massive PE after 10 days of discharging patient home.

Conclusion: -Bariatric surgery is an effective method in weight reduction and in maintaining weight loss.
Weight reduction in our study reaches above 65% of the excess weight after 18-24 months.
Our results, complications, and mortality are comparable to the international figures.

(104)
Decompression illness: Experience at Royal Medical Services

Ismail Alnjadat, Radwan Salamin SN, Eman Sari SN, Emad Hawamdeh BMT, Ahlam Rawajfeh SN

Objectives Decompression illness is a rare, but potentially lethal, condition that occurs most commonly among divers. In this paper we reviewed experience with this condition at department of hyperbaric oxygen therapy in Royal Medical Services.

Methodology The files of all decompression illness patients treated at Prince Hashim Bin Abdullah II hospital (formerly Princess Haya al-Hussein Hospital) were reviewed. Patients treated in the period from 1995 to 2017 were included.Informations collected included patients demograghics, disease subtype, protocols used, and data related to morbidity and mortality. Data analyzed using SPSS 19 software.

Results and Discussion One hundred and seven patients were included with a mean age of 32 years. Most patients had DCS type II(66.4%) and 43% of them were treated according to treatment table 6.There were two fatalities during

treatment(1.9%).Most patients had complete relief while 26% of them had residual symptoms and disability.

Conclusion High index of suspicion and low threshold for commencing treatment in hyperbaric chamber are essential to save life and function. Emergency department staff should be aware of the possibility of DCS and should be included in their differential diagnosis.

(105) Liver Transplantation for Hepatocellular Carcinoma

Yaman Tokat MD (Turkey)

Hepatocellular carcinoma (HCC) is still major cause of morbidity and mortality worldwide and its incidence is increasing. The only potentially curative treatment option is surgical treatment in the form of either resection or liver transplantation (LT). The latter option that is like hitting two birds with one stone is attractive. LT does not only provide relief from the malignant tumor but also allows replacement of the cirrhotic liver that remains at risk for the development of new lesions not only.
Rates of survival post-LT have greatly improved following incorporation of the Milan criteria, which provides a strict standard for patient selection. With cautious patient selection criteria, good results can also be obtained for patients beyond Milan criteria. However, ever-present scarcity of donor organs remains a major limiting factor to widespread incorporation of LT. In the face of increasing numbers of patients with unresectable disease, extended waiting period and consequent risk of tumor progression, alternatives with the potential to increase donor availability are crucial for optimizing treatment outcomes in this setting. Thus, in the current era of donor shortage, living-donor LT is of great importance to provide the increasing demand for usable organs for transplantation.
Additional efforts for the optimisation of eligibility criteria to ensure maximum benefit, expanding the donor pool, improving donor and recipient outcomes remain critical to the field.

(107) Living Donor Liver Transplantation: Where are we now?

Yaman Tokat MD (Turkey)

Orthotopic liver transplantation represents the only curative treatment not only for patients with end-stage liver disease but also those with malignancies and some benign diseases. With improvements in surgical techniques and advances in immunosuppressive therapy, OLT has become close to daily routine in many centers. However, the supply of deceased donor organs has not met the increasing demand. With a scarcity of deceased organs, to expand the donor pool and reduce waiting list mortality, Living Donor Liver Transplantation (LDLT) has become the main alternative option for LT to expand organ availability, especially in Asian countries in contrast with USA.
The benefits of LDLT include thorough donor screening, optimization of timing for LY, minimal cold ischemia time, improved recipient survival and prevention waiting list deaths. Major challenges regarding LDLT include the ethical dilemma that the procedure poses a risk for an otherwise healthy donor. Major concerns about donor safety cause controversy and limit the use of LDLT. To decrease donor morbidity, a thorough evaluation of the potential donor is essential. Therefore, the donor selection process is of critical importance in any LDLT program.
LDLT allows patients to undergo LT at an earlier stage in their illness with shorter hospitalization and the potential for decreased resource utilization.

(108) The Role of Laparoscopy in the Management of Pancreatic Pathologies

Mohammad Abuhilal MD (UK)

Laparoscopic Pancreatic Surgery (LPS) has been late to gain acceptance. This is possibly due to the associated technical difficulties and the doubts about oncological outcomes when dealing with malignant disease. However thanks to developments in surgical techniques, and to the promising results reported by some pioneering centres LPS is now gaining popularity not only in the management of benign disease but also with malignant disease requiring major pancreatic resections.

In this presentation we will discuss the role of the laparoscopic approach in dealing with benign, borderline and malignant pancreatic conditions, demonstrating a number of surgical techniques, tips and tricks in surgical videos of interesting cases including the laparoscopic management of acute pancreatitis , left pancreatectomy and pancreaticoduodenectomy.
We will also discuss short and long term results in comparison with open surgery and highlight the possible learning curves in this setting.

(109) Two Stage Liver Surgery

Sameer Smadi MD (Jordan)
K.Ajarmeh, Sahim Alqusous, A.Faaori, T.Mneizel, R.Jarah, , M Gboor, T. Nawafleh A. Abadi, A.Zubi, A.Adwan, A.Zyadeen, E.Gazawy, A.Obeidat, H.Gharaybeh, G.Duhayat

Some patients with multiple hepatic colorectal metastases are not candidates for a complete resection by a single hepatectomy, even when downstaged by chemotherapy, after portal embolization, or combined with a locally destructive technique. In two-stage hepatectomy, the highest possible number of tumors is resected in a first, noncurative intervention, and the remaining tumors are resected after a period of liver regeneration. In selected patients with irresectable multiple metastases not amenable to a single hepatectomy procedure, two-stage hepatectomy might offer a chance of long-term remission.
During the period august 2009 to march 2018, 32 cases were performed at king Hussien medical center, those cases were either of classical two stages Hepatectomy initial resection and portal vein embolization then second stage surgery after six weeks or Associated Liver Partition and Portal vein ligation for Staged Hepatectomy (ALPPS)

(110)
The Southampton Guidelines on Laparoscopic Liver Surgery; Before and After

Mohammad Abuhilal MD (UK)

The first laparoscopic liver resection (LLR) was performed in 1991. This was not long after the first laparoscopic cholecystectomy. However long time have passed before a consensus has been achieved suggesting that the laparoscopic approach does have a valid role in the treatment of liver lesions.
In fact the first consensus meeting took place in 2008. Since then more attention has been focused on LLR leading to a significant increase of related publication and to a second consensus meeting on LLR in 2014. This second consensus has focused on the feasibility of minor and major hepatectomies, surgical techniques and oncological outcomes. However no strong indication were agreed on the future implementation and expansion of the laparoscopic approach.
The Southampton Consensus Guidelines aimed to define the challenges and limits of the laparoscopic approach when dealing with liver lesions and more importantly define guidance for the development and wider implementation of this approach in the next decade
In this presentation we will highlight the main aims behind the development of the Southampton Guidelines, the guidelines outcomes and novel projects developed based on those recommendations.

(111)
Multidisciplinary Approach to Transplantation: Comprehensive Transplant Center

Sinan Nazif Aran MD (Turkey)

Transplantations from cadaveric sources and healthy living donors have both their unique characteristics. The facility has to be designed and arranged according to the specific needs of each individual transplant program whereas a thourough planning in terms of organizational structure, operations and human resources is mandatory for efficiency and outcome.
Group Florence Nightingale is providing transplantation services in liver, kidney, heart and hematopoeitic stem cells (Bone marrow). The GMP laboratory of the Center for Regenerative Medicine and Cellular Therapies, the immunogenetics laboratory and the blood bank all leverage these services.
All these departments and services constitute the Comprehensive Transplant Center. This presentation briefly describes the structure and the operational workflow of this center.

(112)
New surgical technique for the management of Hepaticojejunostomy Stricture

Tariq Al-Munaizel MD, Abdulhamid Al-abbadi MD, Raed Al-jarrah MD, Mohammad Aljbour MD, Mo'taz Naffa' MD, Eman Oudat RN, Ashraf Alfaouri MD, Sultan Bin Tariff MD, Imad Ghazzawi MD, Sameer smadi MD.

Hepaticojejunostomy stricture development after hepaticojejunostomy for biliary diseases is one of the most difficult and serious complications of biliary surgery. Untreated stricture is associated with several complications.
To present the feasibility of a novel surgical technique (transjujenal stricturoplasty) in the management of benign Hepaticojejunostomy stricture.

Method:
Eight patients presented to our hepatobiliary unit at King Hussein Medical Center with benign hepaticojejunostomy stricture between January 2016 and May 2018. Patients initially underwent transabdominal ultrasonography and MRCP to delineate the biliary system followed by an endoscopic retrograde cholangiography using double-balloon enteroscope. Patients consented to the new procedure and demographic, perioperative, and postoperative data were analyzed.

Results:
Five males and three females with median age 42 years (ranging from 21-53). The main symptoms at presentation was jaundice 62.5% (5/8) followed by cholangitis 37.5% (3/8).The mean follow up post-surgery was 18.6 ± 5.2 months, they were followed with liver enzymes and transabdominal ultrasonography at 2 weeks, 3 months and every six months for 28 months and shows normal liver enzymes and patent anastomosis during the follow up period.

Conclusion:
This new simple procedure and its promising result may replace a more sophisticated procedures for the management of benign hepaticojejunostomy strictures. Further studies consisting of large patient populations are needed to reach a definite conclusion.

(113)
Management of Variceal Bleeding

David Patch MD (UK)

Still one of the most feared medical emergencies, the mortality for this event has progressively fallen over the last 40 years, due to a combination of evidence- based interventions, new technologies, and establishment of hub and spoke work patterns. No one single intervention has proven decisive but prevention remains the best cure, and the revolution in antiviral therapies particularly is having a dramatic effect on the frequency of this catastrophic event.
These elements will be explored, and the audience will be encouraged to share their experiences, with a desired end-state of an agreed algorithm of care applicable across a wide range of different health-care systems.

(114)
NASH

Yaser Al Ryan MD (Jordan)

Definition
Review of Global and regional burden of disease & pharmacological treatment.

(115)
Management of Splanchnic Vein Thrombosis

David Patch MD (UK)

The majority of patients will present with abdominal pain. The widespread use of CT scanning as a diagnostic tool in patients with such symptoms has resulted in an increase in the frequency of diagnosis of acute splanchnic vein thrombosis .
Management is targeted at two elements- identifying the underlying prothrombotic disorder (and tests for mutated JAK2 and CALR alleles has been a major advance) and managing the thrombotic event. The latter currently is limited to anticoagulation. Unfortunately a small proportion of patients will develop gut venous ischaemia. These patients have a high mortality and morbidity, potentially requiring life-long parentral nutrition,

and now form a significant cohort referred on for multi-visceral transplantation.
A new therapeutic care plan will be presented, applicable across a wide range of different health-care systems, along with the results.

(116)
HCV Eradication in Jordan

Imad Ghazzawi MD (Jordan)

HCV prevalence in Jordan is 0.6%. It is estimated that 35000 people are infected.
Disease burden will continue to grow as the population ages.
HCV eradication can be achieved by implementation of the effective HCV screening program and the presence of effective treatment.

(117)
Abstract name: IBD Mimicking Diseases

Talal Al Shawabkeh MD
dr. Yousef ajlouni ,ph. Alaa brekat , dr. mohammad Smadi ,Dr. laith adaila

Objectives: In this lecture, I will review some of the conditions that mimic IBD

Methodology: Result and discussion: IBD is a diagnoses depending on clinical, endoscopic an histological findings.

Conclusion: combination of the three criteria's mentioned above is the right way for IBD diagnoses

(118)
Correlation between Non invasive fibrosis test assessment and liver Biopsy in King Hussein Medical Center

Dr Sultan Ahmed Bin Tarif, MD (Speaker)

Aim: to determine the sensitivity of FIB-4 and Non alcoholic fatty liver disease (NAFLD) fibrosis score in assessment of liver fibrosis compared to liver Biopsy.

Design and method: Retrospective study from January 2017 till April 2018 done in the GI clinic in king Hussein Medical center. 18 patients underwent liver biopsy for HBV or NASH diagnosis and staging of fibrosis were reviewed and FIB-4 (For HBV) and NAFLD fibrosis score (For NAFLD) calculated to assess correlation between the findings.

Results: 18 patients were reviewed; 16 males and 2 are females. Age range from 16 to 65(Median=29.5). Four patients have NASH and one patient have both NASH and HBV and 13 patients have HBV. All patients underwent liver Biopsy and blood lab investigation at the same interval followed by calculation of FIB-4 score for HBV patients and NAFLD score for NASH patients. For NAFLD score two cutoff points were selected to identify the presence of fibrosis (more than0.676) and absence(less than-1.455) and for FIB-4 cutoff value for absence of fibrosis (less than 1.45) and for presence of fibrosis (more than3.25).the study showed significant correlation between the FIB-4 and NAFLD score with degree of fibrosis in liver biopsy.

Conclusion: FIB-4 and NAFLD fibrosis score showed significant correlation with liver biopsy in assessment of fibrosis and this could help clinician in assessment of liver fibrosis without the need of liver biopsy.

(119)
Immnunopathogensis & multisystemic involvement of psoriasis"

Professor Wolf-Henning Boehncke, MD

Psoriasis is a systemic disorder that can involve many tissues in the musculoskeletal system and extra-articular sites, including the gastrointestinal tract and the eye. A new terminology, psoriatic disease, has emerged that encompasses the various manifestations of tissue and organ involvement observed in many psoriasis patients, including inflammation in the joint, eye and gut. Monocyte effector cells (osteoclasts, dendritic cells and macrophages) have been implicated in inflammatory events that occur in psoriatic skin, joints, eye and intestinal tissues. Adverse metabolic and cardiovascular outcomes in psoriasis patients highlight an important link between cutaneous inflammation, adipocytes and vascular remodeling that might be mediated by subsets of inflammatory monocytes

(120)
Update in Atopic Dermatitis - New Therapeutic Options

Claudia Pföhler MD (Germany)

Atopic dermatitis (AD) is one of the most common chronic inflammatory skin diseases that predominantly affects children. However, it can persist in adulthood or start at older ages. 15-30% of all children are affected and up to 10% of adults. Due to its chronic nature and frequently occurring relapses, AD has a substantial effect on patients' quality of life, often requiring long-term systemic treatment, especially in adult patients, who are more frequently refractory to adequate topical treatment with mid- to high-potent corticosteroids and/or calcineurin inhibitors. Therefore, treatment with systemic therapies is often needed to take control of the disease, prevent exacerbations and improve quality of life. This talk focuses on the use of systemic treatments in adult AD patients. Standard therapies with i.e. cyclosporin or methotrexate are discussed as well as new therapeutic options such as dupilumab, an interleukin (IL)-4 and IL-13 antagonist that limits type 2 T helper (Th2) driven inflammatory activity or nemolizumab, a humanized anti-interleukin-31 receptor that especially improves pruritus.

(121)
Mosaicism in Dermatology

Noor Almaani MD,(Jordan)

Mosaicism refers to the presence of two or more genetically distinct cell populations derived from the same zygote within one individual. The skin offers a unique opportunity to study this phenomenon as mosaicism presents as phenotypically distinct areas. This has implications for both cell and gene therapy. There are numerous cutaneous diseases that demonstrate mosaicism and it is important to be aware of the patterns of presentation as many cases are overlooked.

(122)
Systemic Therapy of Metastatic Melanoma Including Targeted Therapy and Checkpoint Inhibition

Claudia Pföhler MD (Germany)

The incidence of malignant skin tumors is rising steadily worldwide. Melanoma is one of the most highly mutated malignancies, largely as a function of its generation through Ultraviolet light and other mutational processes. BRAF is a serine/threonine protein kinase activating the MAP kinase/ERK-signaling pathway. About 50 % of melanomas harbor activating BRAF mutations (over 90 % V600E). BRAFV600E has been implicated in different mechanisms underlying melanomagenesis, most of which due to the deregulated activation of the downstream MEK/ERK effectors. There are several drugs that are approved for targeted therapy of advanced or metastatic melanoma with BRAF mutations such as vemurafenib or dabrafenib that are usually combined with MEK inhibitors such as cobimetinib or trametinib. Targeted therapies induce rapid responses in the majority of BRAF-mutant patients, however, 50% of these responders will develop resistance within approximately 13 months. In contrast, inhibitors of checkpoints on T cells, particularly inhibitors of PD-1 (nivolumab or pembrolizumb), induce responses in 40-55% of patients (given either as monotherapy or combined with the anti-CTLA-4 antibody ipilimumab), and these responses tend to be durable. This talk focuses on modern systemic therapies of metastatic melanoma and the management of their side effects.

(123)
Dermatopathology Consultation Makes a Difference; Clinicopathological Presentation of Few Cases

Awad Hasan Al-Tarawneh, MD (Jordan)

Background: Dermatopathology is a subspecialty of both dermatology and pathology . It is unsafe and even impossible to practice real dermatology without the aid or knowledge of dermatopathology, but in our area its role is underestimated so it needs to be highlighted.

Objectives:To highlight the key role of dermatopathology in dermatology practice.

Methods: Few dermatopathology consult cases from our daily practice and experience in jordan will be presented , their clinical and histopathological features will be presented and discussed to show the need for dermatopathology in any dermatology practice.
Conclusion: dermatology team must include a dermatopathologist

(124)
Common Transient Neonatal Dermatoses

Hussein Odeibat MD (Jordan)
Fatima Yousef MD (Jordan)

The practical issue posed by skin eruptions in neonates relates to the process of ruling out infection.
Most transient vesicular or vesiculopustular eruptions observed after birth are sterile, but the rare patient with systemic bacterial disease may die if such a disease is not suspected. For this reason, infants should be examined very carefully, with careful attention to their general state of health.
Tzank smear of vesicles or bullae may provide instant diagnosis for herpes and candida infection and to differentiate from other common transient neonatal diseases and should be performed, when necessary, at the infant's bedside.

(125)
Updates on Acne Management, Emphasis on Acne Scarring in Pigmented Skin

Firas Al-Qarqaz MD (Jordan)

Acne is the most common dermatologic condition encountered by dermatologists. There are several factors involved in the pathogenesis and this should be linked to the treatment plan of acne patients in order to optimize successful treatment outcome.
Acne scarring is the most important complication for acne and this can pose challenges in the management especially in people with darker skin tones. Some on possible treatment options for this group of patients may carry further risks in terms of pigmentary changes that may result in darker skins and hence treatment must be individualized. We will present updates on acne and its management including treatment for acne scarring in patients with darker skin particularly our experience in this selected group with dark skin color.

Keywords: acne, acne management, acne scarring, pigmented skin

(126)
Trichoscopic Features of Hair Loss in Children

Ketam Alrfou' MD (Jordan)

Hair loss is a common and distressing clinical complaint in the dermatology clinics. Common causes of hair loss in children include alopecia areata, tinea capitis, traction alopecia, and trichotillomania. Newly, trichoscopy allows differential diagnosis of hair loss in most cases, and allows visualization of hair shafts and scalps without the need of removing hair.
My talk will be about Clinical Significance of Trichoscopy in Common Causes of hair loss in children: Analysis for 134 cases.

(127)
Fractional CO2 Laser in Treatment of Hypertrophic Burn Scars.

Salah Abdallat MD (Jordan)
Ayman Qaqa MD

Background: Hypertrophic scars, following burns, are prevalent. They have significant psychological, functional, and economic impact on patients and health insurance systems. Currently, many therapeutic options are available, including laser therapy. Fractional ablative CO2 laser creates thermal columns of ablation in the skin, surrounded by undamaged tissue, inducing healing and collagen remodeling.

Objectives: To study the efficacy and the prevalence of potential side effects of fractional ablative CO2 laser in treatment of hypertrophic burn scars.
Patients and Methods: This prospective case series study included 19 Jordanian, adult patients with

mature hypertrophic scars caused by burns. It was conducted at King Hussein Medical Center, Amman, Jordan, between July 2017 and March 2018. All patients received three to five fractional ablative CO2 laser sessions at 4 to 6-week intervals. Power ranges from 16 to 25 watts, dwell time ranges 700-1500 microseconds, with pitch range of 500-800 micrometers. Each patient was evaluated by two blinded dermatologists using standardized photographs taken at baseline and three months after the final session, to assess clinical improvement using 10-point overall cosmetic scale (score 10, excellent improvement, score 1, poor improvement). In addition, patient satisfaction was rated using a 4-point scale (grade 4: >75%, excellent improvement; grade 3: 51% to 75%, good improvement; grade 2: 26% to 50%, fair improvement; grade 1: 0% to 25%, poor improvement). Side effects were assessed after each session and three months after last session. Results: At the conclusion of the treatments, all scars showed improvements, as demonstrated by the overall cosmetic scale, and the patients themselves. The mean grade of clinical improvement based on the overall cosmetic scale was 7.0 (out of 10). Of the 19 patients; 15.8% graded improvement as excellent (grade 4: >75% improvement), 78.9 % as good (grade 3: 51-75%), and 5.3% of patients graded improvement as fair (grade 2: 26-50%). The mean grade of clinical improvement based on patients' own satisfaction was 3.2.
Post treatment side effects included pain, irritation, erythema, and postinflammatory hyperpigmentation. They were all mild-moderate, tolerable, and transient.

Conclusion: Ablative fractional CO2 laser is a safe and effective treatment of hypertrophic scars.

(128)
Cutaneous Photophysical and Photochemical Changes Induced by Ultraviolet Light

Ayman Al Qa'qaa' MD (Jordan)

Exposure of the skin to ultraviolet (UV) light leads to both acute, short-term effects
(sunburn and tanning) and chronic, long-term effects (photocarcinogenesis and photoaging), all of which are wavelength-dependent. Human skin has many mechanisms for protecting against UV-induced killing and the genome-damaging properties of UV light, including DNA repair processes, immune-mediated removal of damaged cells, and anti-oxidative defense systems.
For photophysical and photochemical effects to occur, the energy of the UV light must be absorbed by a chromophore. UV light induces different types of wavelength-dependent DNA damage, including pyrimidine dimers and oxidative guanine base modifications, which lead to mutation formation. In order to address these changes in the DNA sequence, there are several repair pathways – nucleotide excision repair, base excision repair, translesional DNA synthesis, and recombination repair.
UV light clearly affects the skin's immune system, exerting both pro- and anti inflammatory responses. Proinflammatory effects are exemplified by sunburn and are mediated primarily by innate immunity. Anti-inflammatory/immunosuppressive effects are mediated in large part by adaptive immunity; by inhibiting immune recognition of UV-damaged cells, they play an important role in photocarcinogenesis.
The positive aspect of UV-induced immunosuppression may be the prevention of autoimmune responses triggered by UV-induced cell damage and unmasking of autoantigens. The aim of this presentation is to highlight the major photophysical and photochemical skin changes induced by exposure to ultraviolet radiation and their therapeutic influence on inflammatory skin diseases.
Novartis symposium
"Cosentyx: Aiming for a comprehensive treatment in psoriatic disease"

(129)
Bedside Microscopy in Dermatology

Dr. Hiathem Abualhaija, MD.

Background: Dermatologists are lucky to specialize in the organ that is most accessible for evaluation. Skin diseases mostly can be easily recognized by the characteristic clinical picture, the clinical information is at forefront of the diagnostic process. But still we have to rely on tests to narrow down the differential diagnosis.

Method: A brief review for the use of microscope as a bedside diagnostic aid in the viral, bacterial, and fungal diseases, Tzanck smear and the

appearance of various conditions affecting the hair.

Result: Bedside microscopic examination as a diagnostic technique play an important role in the diagnosis and management. These tests are rapid, economical, allowing for rapid initiation of treatment, and can be easily incorporated into the daily practice.

Conclusion: Although modern dermatologist has access to biopsies, culture, polymerase chain reaction, gene study, and other sophisticated diagnostic techniques, still its important to remember and develop better skills in performing the bedside diagnostic techniques.

(130)
Treatment of Atrophic Scars using Platelet-rich Plasma and Subcision: an Experience at King Hussein Medical Center

Jehad Shaher Ahmad Alassaf,MD, Taghreed Maiita MD, Samira Alhashaikeh MD, Sanaa Alwaheidi RN, Kamal Abu Rahmeh RN, Hussein Odeibat MD

Objectives Scars are a major functional and cosmetic concern for many patients. While hypertrophic scars show good response to some treatment options, atrophic scars show modest response to laser resurfacing and some other therapeutic modalities. In this retrospective study we assessed the response of atrophic scars of different etiologies to surgical treatment using subcision (subcutaneous incisional surgery) and platelet-rich plasma injection.

Methodology We recruited patients with atrophic and depressed scarring that are either laser-naïve or failed treatment with laser, usually due to resultant post-inflammatory hyperpigmentation or poor response. Subdermal incision (subcision) was performed and/or autologous platelet-rich plasma was injected superficially into the scar. Patients were followed up at least monthly. Results were assessed using a score from 1 to 10 by both patient and observer on all patients before and after treatment; with (1) equivalent to normal skin and (10) equivalent to worst scar.

Results and Discussion All of the patients had visible and measurable clinical improvement. Based on the observer (1 to 10) scale, a classification of excellent, very good, good, and fair was utilized to correspond to 75%, 50%, 25% and 10% improvement, respectively. 100% of the patients had more than 25% (good) improvement in their scars. Eight patients (15%) had 75% or more (excellent) improvement. Thirty-seven patients (67%) had 50% to 75% (very good) improvement. Ten patients (18%) had 25% to 50% (good) improvement. None of the patients had less than 25% improvement.

Conclusion
Subcision and platelet-rich plasma injection seem to be effective and safe methods of treatment of atrophic scarring of various etiologies.

(131)
Cosentyx: a game changer in Psoriatic Disease

Wolf-Henning Boehncke, MD (Germany)
Head, Division of Dermatology and Venerology, Geneva University Hospital

Psoriasis is a relatively frequent disease, potentially with serious professional impact and high socioeconomic cost. In this presentation, a brief overview on different inflammatory pathways from TNF to IL-17A in Psoriasis is provided. From itching to erythema and scaling, distribution of the plaques, nail Psoriasis, inverse Psoriasis and Psoriatic arthritis: different manifestations of the same disease. A description linking the main features of the disease to quality of life. How some manifestation have significant impact on patients. The presentation provides information on shifting from clinical trials to practical treatment approaches: how to tailor treatment according to patient's needs and how to maximize benefits and minimize side effects impact.

(132)
Paradigm Shift in the treatment of Non-Small Cell Lung Cancer

Christian D. Rolfo, MD (Belgium)

For patients with advanced non-small-cell lung cancer (NSCLC) lacking a targetable molecular driver, the mainstay of treatment has been cytotoxic chemotherapy. The survival benefit

of chemotherapy in this setting is modest and comes with the potential for significant toxicity. The introduction of immunotherapeutic agents targeting the programmed cell death 1 protein (PD-1) and the programmed cell death ligand 1 (PD-L1) has drastically changed the treatment paradigms for these patients. Immunotherapy has been shown to be superior to chemotherapy in the second-line setting. For patients with tumours strongly expressing PD-L1, pembrolizumab monotherapy has been associated with improved outcomes in the first-line setting. Combination checkpoint regimens, with acceptable toxicity and potentially enhanced efficacy, have been developed. Recently, combinations of immunotherapy with chemotherapyhave shown improved survival and response outcomes for first line NSCLC. In this symposium, we will focus on the recent updates that have changed the treatment landscape in advanced NSCLC and on the ongoing clinical trials that offer hope to further improve outcomes for patients with advanced NSCLC.

(133)
The clinical picture of Huntington's disease.

Hugh Rickards MD (UK)

Huntington's disease is an inherited neurodegenerative disorder. Cellular damage is caused by the huntingtin protein, which is particularly toxic to medium spiny neurons in the striatum. Symptoms commonly start in middle age but brain changes are measurable many years before that time. Patients who carry the Huntington's disease gene develop difficulties with organising and understanding the world and it becomes harder for them to act effectively in their environment. Apathy, perseveration and poor planning are common problems. Chorea and dystonia are the most obvious signs of illness but these tend to occur late and are less disabling than the problems with thinking and acting.

(134)
Research in Huntington's disease.

Hugh Rickards MD (UK)

There has been an increase in research into Huntington's disease in the last 20 years. The location of the gene was discovered in 1983 and the exact biology of the mutation was discovered in 1993 (expanded trinucleotide repeats at the IT15 region of Chromosome 4). The TRACK-HD study has enabled us to demonstrate early and extensive changes many years before obvious clinical onset. There is a large global longitudinal cohort study (ENROLL-HD) which is helping us to construct accurate models of disease and to test the best ways of measuring illness. The first trials of disease modifying compounds have recently been completed successfully and further trials are planned. Research into physical activity shows benefits in preserving function.

(135)
Why Olanzapine Beats Risperidone, Risperidone Beats Quetiapine and Quetiapine Beats Olanzapine. How Effective are Psychiatric Treatments.

Jed Magen MD (USA)

Why is it so difficult to know if psychiatric treatments work? Why is there so much contradictory information and few head to head trials of commonly used medications? This lecture will outline how we have arrived at this state of affairs. The lecture will discuss what we know and do not know about the efficacy of second generation antipsychotic medications, antidepressants and the efficacy of psychotherapies. We will also discuss how pharmaceutical companies market medications and how they attempt to influence physicians decisions. Finally, given imperfect information, how does one make a reasonable and informed decision regarding when and how to prescribe medication and psychotherapy.

(136)
Psychosocial Assessment of Pre-Transplant Candidates

Selvi Kayıpmaz MD (Turkey)

Organ failure is a life-threatening condition. Solid organ transplantation is one of the treatment methods and is widely used around the world. Transplantation is not a definitive treatment intervention, it accepted as an alternative treatment choice for the patients confronting medical and psychiatric difficulties.

Transplanted organs are provided from two primary sources. These are cadaveric donors and living donors. Because of the insufficient number of organs, transplantation teams face the challenge of identifying which candidates are most appropriate. For this reason, this evaluation is done with an interdisciplinary approach in many transplantation units.
Psychiatric evaluation of organ recipients begins with the diagnosis of end-stage organ failure and continues until post-transplantation. Psychiatric comorbidity may arise before and after transplantation. Depression and anxiety disorders are the most common. Other issues include concerns about conflicts with family roles and relationships, sexual dysfunctions, problems with returning to work, compelling medical regime compliance, and the possibility of organ rejection. Pre-transplant psychological functioning has been shown to be associated with post-transplant outcomes.
The aim of this presentation is to address psychiatric evaluation and difficulties encountered in patients who are on the waiting list for transplantation.

(137)
Tourette's syndrome: What Do You Know?

Amjad Jumai'an MD (Jordan)

For most of the 20th century, Tourette's syndrome (TS) was considered as a psychiatric disorder based on occasional stress - related exacerbation, voluntary inhibition, and the frequent changes in the site and nature of tics. Over the past 30 years, many organic factors have been identified, in particular a genetic susceptibility and partial response to pharmacological treatment. Genetic studies have so far not succeeded yet in establishing a clear disparity in the biochemical pathways in patients with TS. Moreover, studies on pharmacological treatment in TS are difficult to be explained because of the variations in the course of the disease, the placebo effect, and most of the evidence based on case reports, case series, and open trials. Comorbid psychiatric disorders are commonly present in patients with TS. Attention deficit hyperactive disorders (ADHD) and obsessive compulsive disorder (OCD) are the most prominent associations in patients with TS. These associated psychiatric disorders can be more disabling and can complicate the course of the disorder itself if not recognized and treated earlier. In this presentation we aim to summarize research on TS epidemiology, etiology, and clinical course. Added to that, a set of treatment options for TS and related psychiatric disorders is offered, one that approved the use of behavioral and psychological interventions as a first line treatment for TS.

(139)
Remote Diagnostic Technologies.

Eng. Dott. Davide Nocentini, Philips Medizin Systeme Böblingen GmbH

Remote Diagnostic Technologies (RDT) is a medical device range of products from Philips Healthcare who specialize in the remote monitoring and resuscitation solutions for pre-hospital and critical care services.
Remote Diagnostic Technologies' journey began over 20 years ago to address a real challenge of how to monitor patients in remote locations and securely transmit medical data in real-time to trusted support or the next level of care. We have achieved this for both medical experts and non-medical experts through our acute focus on the needs of the prehospital market.
This commenced through equipping non-medical experts such as crew with telemedicine enabled monitors on-board commercial aircraft including Etihad, Emirates, BMI and Virgin Atlantic, connecting them to ground-based medical experts. The use of this technology then expanded worldwide into Business Aviation, Fortune 100 Companies and Major Corporations, Heads of State fleets, luxury yachts and shipyards.
The next phase of our journey saw us developing greater monitoring capability and advancing the design of our technology to meet the needs of medical experts operating in the harshest environments. In 2016, the Tempus Pro became the vital signs monitor of choice for the UK MOD, replacing 7 other monitors in one solution. This technology is also being used by NATO militaries around the globe. The impressive technical capabilities are combined into a monitor that is smaller, lighter, more connected and easier to use than anything else available on the market.

Topic objectives:

- Background, concept, types of products and technology.
- Discuss how the technology can support in the

military space and pre-hospital scenarios.
- Address benefits and added values of working with Philips-RDT solutions

(140)
Evolution of H2O2 Low Temperature Sterilization

Dr. Georgia Alevizopoulou

In the Healthcare field infection prevention practices with reusable devices have traditionally been focused on Steam Sterilization, while only in recent years greater emphasis is being placed on Low Temperature Sterilization methods. There are a number of considerations that drive this need, associated mostly with advances in technologies and trends in instrument reprocessing: the substantial change in the nature of surgery into more innovative procedures and particularly the increased popularity and growing expertise in Minimal Invasive Surgery (MIS), the scientific research in microbiology and its unpredictable results, the need for cost-effective cycles and solutions to aid the challenging financial restrains along with the need for quick turnaround time and the demand for compliance with regulatory standards and guidelines. Various Low Temperature sterilization methods have evolved gradually through the years to address all these needs and to-date the most frequently used methods developed for low temperature sterilization applications include Ethylene Oxide, Low Temperature Steam Formaldehyde, Liquid Chemical Peracetic Acid, Hydrogen Peroxide gas and Ozone. Hydrogen peroxide gas sterilization in particular is the one to gain more and more popularity today among central sterile processing departments as a safer, faster, cost efficient and reliable low-temperature sterilization process that meets the challenging needs in perioperative and diagnostics advances.

Objectives:
- Review Trends and Advances in the HC field that drive the need for Low Temperature sterilization solutions
- Discuss currently available LT technologies
- Address benefits and added values of working with H2O2 Low Temperature Sterilization processes

(141)
Management of Meconium Aspiration in 2018

Naomi McCallion MD (Ireland)

Meconium aspiration syndrome is caused by a combination of airway obstruction, surfactant dysfunction, chemical pneumonitis and persistent pulmonary hypertension, and is responsible for approximately 2% of term admissions to NICU. There have been significant changes the early delivery suite management of possible meconium aspiration in recent years as well as to the subsequent intensive care management of the condition. The four components of meconium aspiration will be discussed, with up-to date, evidence –based approaches provided for each aspect of care, with particular emphasis on ventilator support and optimising the management of pulmonary hypertension. In addition, important differential diagnoses and co-morbidities such as hypoxic-ischaemic insults, will be reviewed, as will adjunctive pharmacological agents.

(142)
Recent Guidelines in Management of Respiratory Distress Syndrome

Mohammad khassawneh MD (Jordan)

Significant advances have been made in the management of respiratory distress syndrome over the last number of years. Prenatal corticosteroids for lung maturation and postnatal surfactant replacement therapy have reduced the incidence, severity, and mortality associated with RDS. In this talk we will present recent guideline in management of RDS in preterm infant including use of CPAP, surfactant administration and ventilator management.

(143)
Haemostasis in the Very Low Birth Weight Infant

Naomi McCallion MD (Ireland)

Very preterm infants are susceptible to serious complications of prematurity including bleeding (and intraventricular haemorrhage in particular) which may increase morbidity & mortality.

Coagulopathy increases the risk and severity of serious bleeding. Coagulation profiles (APTT and PT) are frequently monitored in these critically ill infants and used to guide management of bleeding patients, but their interpretation in the non-bleeding patient is less clear cut. Coagulation results in very preterm infants are referenced to ranges established for adults or term neonates but these values are very different to adults in even moderately premature populations (>30 weeks). Use of adult reference ranges may lead to inappropriate transfusion of blood products which have not been demonstrated to improve outcome. Novel methods have been used by our group to measure endogenous thrombin generation in very low birth weight infants to functionally assess haemostasis in this cohort, and these results have been linked to important clinical outcomes.

(144)
Long Term Respiratory Outcomes in Preterm Infants

Faten Al Awaysh MD (Jordan)

Bronchopulmonary dysplasia need for oxygen for at least 28 days after birth.
Most commonly used definition is oxygen at 36 weeks gestational age
Grading at 36 wks gestational age for infants born < 32 wks or at 56 days for infants
born ≥ 32 wks. Mild, Moderate, Severe.
Old BPD replaced by new BPD
Clinical sequalae of chronic lung disease
Management and prevention of chronic lung disease
Long term management.

(145)
Neonatal Hypoglycemia, American Academy Statement Versus European And Other Guidelines

Mohammad khassawneh MD (Jordan)

Glucose homeostasis is very important source of energy to neonatal brain and tissue. We will discuss definition of hypoglycemia, Cut off number for norm in hours of age. We will present data on neonatal outcome related to hypoglycemia.
Approach for management of this issue in the first 24 hours and newer approach with recent evidence on this topic will be presented.

(146)
Antibody-Mediated Rejection in Pediatric Kidney Transplantation

Brophy Patric MD (USA)

Kidney transplant is the preferred treatment of pediatric end-stage renal disease. One of the most challenging aspects of pediatric kidney transplant is the prevention and treatment of antibody-mediated rejection (ABMR), which is one of the main causes of graft dysfunction and early graft loss. Most challenges are similar to those faced in adult kidney transplants; however, factors unique to the pediatric realm include naivety of the immune system and the small number of studies and randomized controlled trials available when considering pharmacological treatment options. Here, we present a case of ABMR in a pediatric patient and a review of the pathophysiology, diagnosis, and management of ABMR. ABMR in pediatric kidney transplant continues to be a frustrating condition to treat because (1) there still remain many unidentified potential antigens leading to ABMR, (2) children and adults are at different stages of their immune system development, and, thus, (3) the full pathophysiology of alloimmunity is still not completely understood, and (4) the efficacy and safety of treatment in adults may not be directly translated to children. As we continue to gain a better understanding towards the precise alloimmune mechanism that drives a particular ABMR, we can also improve pharmacotherapeutic choices. With continued research, they will become more precise in treating a particular mechanism versus using a broad scope of immunosuppression such as steroids. However, there is much more to be uncovered, such as identifying more non-human leukocyte antigens and their role in alloimmunity, determining the exact mechanism of adults achieving complete operational tolerance, and understanding the difference between pediatric and adult transplant recipients. Making strides towards a better understanding of these mechanisms will lead to continued efficacy and safety in treatment of pediatric ABMR.

(147)
Pediatric kidney Transplantation: KHMC Experience.

Ghazi Alsalaita MD (Jordan)

To highlight our experience with pediatric renal transplantation at King Hussein Medical Center, the medical records of 126 pediatric patients who underwent a renal transplantation procedure between the years 2004 and 2018 or started follow-up at our center within one week of transplantation done elsewhere were reviewed. Over the fifteen-year period, 126 children under the age of 14 years who received their first renal transplant were studied. About 54.8% (69) were males. The mean age was 9.6 years. Dysplastic kidney was the most common cause of end-stage renal failure in our patients. Mothers were the donors in 44.4% (56) of the cases. Thirty four patients (27%) were transplanted preemptively. The overall one-year graft survival was 94%, and the five-year survival was 86%. Prednisone, tacrolimus, and mycophenolate mofetil formed the main-stay of immunosuppressive agents. We have developed a successful live donor program for renal transplantation in children at King Hussein Medical Center. The graft survival is similar to that achieved in the developed world

(148)
PTLD Approach &Treatment

Brophy Patric MD (USA)

Post-transplant lymphoproliferative disease (PTLD) emerged in the mid-1990s as a major graft- and life-threatening complication of pediatric kidney transplantation. This condition, usually involving uncontrolled B lymphocyte proliferation, straddles the border between infection and malignancy, since Epstein–Barr virus (EBV) is intimately associated with the pathogenesis. PTLD is seen more in younger children (more likely to be EBV seronegative), Caucasian race, and in association with the more potent immunosuppression drugs. The clinical presentation typically involves multiple enlarged lymph nodes but varies based on localization of the lymphadenopathy. The diagnosis is based primarily on histopathological features. Treatment strategies include reduction of immunosuppression, use of anti-B cell antibodies, infusion of EBV-specific cytotoxic T lymphocytes, and chemotherapy. Many different strategies have been tried to prevent PTLD, ranging from serial EBV viral load monitoring and pre-emptive immunosuppression reduction to anti-viral prophylaxis. None of the major treatment or prevention strategies has been subject to randomized clinical trials, so their relative efficacy is still unknown. PTLD remains a risk factor for graft loss, though re-transplants have not, to date, been associated with repeat PTLD.

(149)
Acute Kidney injury in infant

Issa Haza, MD (Jordan)

Our understanding of the epidemiology of neonatal AKI is based on small single center studies that usually focus on a subset of the neonatal population. Nonetheless, the available data suggest that the incidence of AKI in asphyxiated neonates is high, that non-oliguric AKI is common, and that AKI portends poor outcomes medicine. Neonatal AKI is very common and associated with poor outcomes. In this lecture the unique aspects of neonatal renal physiology, definition, risk factors, epidemiology, outcomes, evaluation, and management of AKI is discussed.

(150)
Acute Cellular Rejection among Jordanian Pediatric Patients.

Mahdi Frehat MD (Jordan)

Ghazi Alsalaeta MD, Reham Almardini MD, Jawaher Al Bederat MD, Aghadir Alhadidi MD

Background: Renal Transplantation is the best renal replacement therapy for patients with end-stage renal disease. , The most common signs for acute cellular rejection is hypertension, fever and Rising serum creatinine ,it is usually occurs within the first 6 months of renal transplantation and it is about 10 percent, acute cellular rejection remains a major risk factor for graft loss. So early diagnosis and treatment of acute rejection are most important for good prognosis, and the diagnosis made by kidney biopsy.

Methods: This is a retrospective review for 126 pediatric patients with renal transplantation were

included in this study from May 2004 to March 2018 This study was conducted at department of pediatric nephrology in Queen Rania Children Hospital

Results: Among the126 patients with renal transplantation patients, 15 patients found to have acute cellular rejection 9 were treated, 4 lost of graft, and two died. We classify the patients with acute cellular rejection to 3 groups according to risk factors and prognosis. First group with prerenal causes due to volume depletion which represent by decrease of oral fluid intake, we found this in 4 patients, all these patients treated with good hydration and pulse methylprednisolone and they responded well to treatment. Second group is a renal causes due to:
1- uncontrolled level of calcineurin inhibitor due to noncompliance to medication in 3 patients and 2 responding well to treatment and one with graft loss
2- Infection like BK Virus in 2 patients, one of them died another one has a good function and one patient with CMV infection and has a good prognosis.
3- Idiopathic causes in 2 patients.Third group with post renal causes, and this included evidence of neurogenic bladder and recurrent urinary tract infection, it was occurred with 3 patients and the kidney function was impaired.

Conclusion; early diagnosis of acute cellular rejection and optimal treatment are the most important factors in the reversal of rejection so frequent level monitoring of calcineurin inhibitor and education of the patients is essential.

(151)
New Treatments for Cystic Fibrosis -Are They the Answer?

Gary Connett MD (UK)

Cystic Fibrosis (CF) affects children in many parts of the world including Arab states where there is a high level of consanguinity. Early diagnosis and specialist multi-disciplinary team care has been key to ensuring the best possible outcomes for those who are born with this condition. Achieving and sustaining optimal nutritional status and the aggressive treatment of pulmonary infection with appropriate antibiotics plus physiotherapy have been the cornerstones of good management. Until very recently, our available treatment modalities have only been able to target the downstream effects of loss of Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) function on the surface of epithelia throughout the body. In the last few years, high throughput robotic screening of compounds for their efficacy in restoring CFTR function in cell lines from CF patients has resulted in the discovery of CFTR modulators. These drugs repair the intracellular processing (Correctors) of the CFTR protein and restore the opening function of CFTR as a chloride channel on the cell surface (Potentiators). Such treatments are genotype specific and herald the concept of precision medicine for individual patients according to their two recessive gene mutations. This step change in treatment is already transforming outcomes for CF sufferers who have been afforded early access to these drugs. Health care economies need to address barriers to the access to these medications and health care professionals need to work closely with families to ensure high levels of adherence to these new treatments to optimise their benefit.

(152)
Cystic Fibrosis Metabolic Syndromes

Muna M Dahabreh MD (Jordan)

Cystic fibrosis(CF) is an autosomal recessive disease. It is the most lethal inherited respiratory disease in Caucasians. It is a multisystem disease. Classically involving the sin pulmonary system and in nearly 80% of patients associated with pancreatic insufficiency
Cf manifests when there is defect in the cf_ transmember. Not all the patients have the same manifestations and not all patients with the same disease have the same severity.
As there are over 1200 gene mutations not all of them are disease-causing this led to variable manifestations and even milder phenotypes. Some may have single system involvement. While others have manifestations with normal readings of sweat chloride what is referred to as CF metabolic syndromes

(153)
What Makes Difficult Asthma Difficult?

Gary Connett MD (UK)

Asthma has been recognised as a respiratory disease since antiquity. Whilst it was understood at the beginning of the twentieth century that asthma was a disease of airways smooth muscle, it was only in the latter half of the century that the importance of inflammation, airway remodelling, the role of infection and the inheritance of susceptibility genes were recognised as being key to the pathophysiology of symptoms. This understanding of asthma at a cellular level has driven the pharmaceutical development of inhaled corticosteroids and more recently monoclonal antibodies targeting key inflammatory mediators. In parallel with these developments the prevalence and severity of asthma has increased globally and in particular in the developed countries spearheading this activity. Whilst allergen exposure, airway irritants and viral infection have been recognised as triggers for symptoms, molecular science research has incompletely elucidated the determinants of severe chronic asthma phenotypes. This presentation will reflect on these observations and consider the extent to which asthma severity might be a determinant of emotional anxiety and whether secondary gains accrued through worsening illness might be a driver of asthma disease at a sub-conscious level.

(154)
Chronic Aspiration in Children

Mona Al kilani MD (Jordan)

Recurrent aspiration syndromes are a cause of recurrent respiratory distress and in severe cases can lead to chronic interstitial lung disease.
The presentation will be about the mechanisms of aspiration in children. The diagnostic testing necessary to diagnose aspiration, as well as the approach to management of children with recurrent aspiration.

(155)
Our Experience with Asymptomatic Vitamin D Deficient Children at Prince Hashem bin Al-Hussein Hospital. A Retrospective Study Revealing How Prevalent Children Recording low level of Vitamin D Although Asymptomatic

Fadi farhanayyash,
HussienAlawnehAbdalrazzaq al Yassen
Hadeel AlgreeneAsma Alqur3an

Objectives Vitamin D is crucial to bone growth , and vitamin D deficiency is a common finding and affects large number of people . In our practice, a data of low levels of vitamin D, although asymptomatic, was common. Our aim in our study is to determine how prevalent low vitamin D levels among asymptomatic children at Prince Hashem bin Al-Hussein Hospital.

Methodology This is a retrospective study for a data that was obtained from a randomized sample of children ranging from 12 months up to 14 years old. The data was collected from 2016 to 2018 of 113 children whose parents asked for Vitamin D level. However, they had no symptoms or signs for vitamin D insufficiency. The levels of vitamin D were classified into normal level >25ng/dl insuficien(20-25)ng/dl, deficient (10-20)ng/dl, and severe deficiency less than 10 ng/dl. Children with vitamin D deficiency due to other medical disorders were excluded from the study.

Results and Discussion 16.8% of children had normal level above 25ng/dl , 8.8% insuficint (20-25)ng/dl , while 48.7% had vitamin D deficiency (10-20)ng/dl , and 25.7% recorded vitamin D level below 10 ng/dl.

Conclusion 83.2% of children in our study unfortunately were found to have low levels of vitamin D less than 25 ng/dl, although they had no symptoms or signs for vitamin D deficiency or inuficincy. Further investigations and studies are recommended to look for the underlying cause of having low level of vitamin D.

(156)
Illustrated Cases in Pediatric Infectious Disease

Walid Abuhammour MD (USA)

In this presentation, I review principles of recognition and management of a selection of encountered infectious disease cases. In addition to other illustrating cases. Emphasis will be on proper utilization of medical history, good physical examination and maintaining high index of suspicion.

(158)
Pediatric Infectious Disease Emergencies

Walid Abuhammour MD (USA)

Infectious disease emergencies can be rapidly fatal without prompt recognition and treatment, which includes empiric intravenous (IV) antibiotics with, or without surgical intervention. A high index of suspicion is pivotal to diagnose these infections. This presentation reviews principles of recognition and management of a selection of commonly encountered infectious disease emergencies

(159)
Interstitial Lung Disease: Lessons for the Clinic

L G McAlpine MD (UK)

The interstitial lung diseases are associated with considerable morbidity and some have high mortality rates. There is a large number of individual types, many of which are rare. Classification of these complex conditions, based on clinical characteristic, HRCT appearances, and histology are regularly redeveloped and are not always helpful in clinical practice. Some are unclassifiable. A practical approach to the recognition, assessment, and current management of interstitial lung diseases will be described with case examples.

(160)
Screening for Lung Cancer

Suleiman M. Momany MD (Jordan)

Lung cancer remains a leading cause of death among all cancers worldwide. The dismal low 5-year survival rate is in due to the lack of symptoms during early stages. By time most patients are diagnosed, they have advanced stage disease, and curative treatment is no longer an option. An effective screening test has long been desired for early detection with the goal of reducing mortality from lung cancer, but until recently an effective screening test was lacking. Chest X-ray and sputum cytology were studied extensively as potential screening tests for lung cancer and were conclusively proven to be of no value. Other tests aimed at utilizing exhaled breath biomarkers as well as blood tumor markers did not reveal any usefulness. Studies that compared computed tomography (CT) with the chest X-ray were not designed to prove a reduction in mortality and did not identify lung cancer in earlier stages. Later trials have focused on low-dose CT (LDCT) as a screening tool. The largest US trial - the National Lung Screening Trial (NLST) - enrolled approximately 54,000 patients and revealed a 20% reduction in mortality. While a role for LDCT in lung cancer screening has been established, the issues of high false positive rates, radiation risk, and cost effectiveness still need to be addressed. The guidelines of the international organizations that now include LDCT in lung cancer screening are reviewed. Other methods such as positron emission tomography, autofluorescence bronchoscopy, and molecular biomarkers may also contribute to improve earlier detection.

(161)
How to set a VATS Lobectomy Program and How to Proceed

Henrik Jessen Hansen MD (Denmark)

Questions to be answered:
Demands to the institution? How to begin as the first surgeon at the institution? Training at an established institution? Do you need extensive skills in open surgery? How much VATS experience prior to a VATS lobe? Indications for the first cases? VATS and infections disease and dealing

with lymph nodes. How it develops to be the standard approach?
Based on Europe's largest VATS program where almost 90% of all lung surgery is by VATS the lecture will try to answer the questions.

(162)
Minimally invasive mediastinal surgery

Riad Abdel Jalil MD (Jordan)

Minimally invasive surgery has changed the way operative procedures are performed in many specialties.
As surgeons have become progressively familiar with these techniques, the opportunities to use them have expanded.
In thoracic surgery, many surgeons now use minimally invasive techniques to resect small, uncomplicated pathologies of the mediastinum as well as to perform thymectomy for myasthenia gravis.
Experience with these techniques beside high quality instrumentation developement has allowed new knowledge to be gained and expansion of the use of these techniques for more complicated mediastinal pathology.
in King Hussein Cancer center we started to adopt minimally invasive approach in doing surgery for anterior, middle and posterior mediastinal pathology ranging from small uncomplicated diagnostic procedure as well as for complicated large mass resection required pericardial and lung resection to obtain R0 resection.
in this lecture; we will focus on mediastinal surgery; applicability and safety of minimally invasive mediastinal surgery

(163)
VATS Lobectomy in N2 Disease

Henrik Jessen Hansen MD (Denmark)

Former on surgery was not a part of the treatment in N2 disease but in the area of multimodality treatment and adjuvant oncologically treatment it is debated again. The former evidence is based on surgery from the last century with an open approach and not the lymph node handling we do nowadays. Traditionally VATS is only accepted in early stage lung cancer, but both this and surgery in N2 disease are now challenged.
Current front line VATS surgery moves into this area and may institutions – including in Copenhagen upfront VATS surgery in limited N2 disease is now the standard. And what about the future with immunotherapy?3

(164)
VATS Lobectomy for Early Stage Lung Cancer: Update of the Experience at KHMC

Mohammad I. Al-Tarshihi MD (Jordan)

Objectives: to report our early experience in thoracoscopic Lobectomy for early stage lung cancer at King Hussein Medical Center.

Methods: this is a retrospective descriptive analysis for 56 patients who underwent thoracoscopic Lobectomy for early stage lung cancer using the standard 3 port anterior technique in the period from January 2014 to December 2017 at King Hussein Medical Center, Amman-Jordan. The selection of patients who underwent thoracoscopic Lobectomy were those with tumors less than 7 cm in diameter .demographic data, postoperative intensive care unit stay, hospital stay, complications, conversion to open technique and fatality were studied and analyzed.

Results: male constituted 73.2% (n=41) of the studied patients. The left upper lobe was removed in 23 patients (41.1%). The postoperative hospital stay ranged from 3-16 days (mean 4.97±2.29 days), Post operative ICU stay ranged between 1-3 days (mean 1.07±0.26 days). The most common post operative complication was prolonged air leak which was reported in 4 cases (7.1%). Mortality was reported in one case (1.8%)

Conclusion: thoracoscopic Lobectomy for early stage lung cancer is safe and feasible procedure for patients with early stage lung cancer and should be considered as the first line surgical procedure instead of open Lobectomy

Key words: Lung cancer, thoracoscopic, Lobectomy

(165)
Initial Experience with Conventional TBNA at KHMC

Adnan Al-Suleihat MD (Jordan)

Raja Alkasawna MD, Mhmd Al-Njada MD, Jafar Al- Momani MD. Leth Obedat MD, Majid Al-Zboon RN, Ammar Al Abbadi RN.

Objective: The aim of this study is to evaluate our experience at KHMC in conventional transbronchial needle aspiration (TBNA) in confirming the diagnosis in patients with intrathoracic lymphadenopathies (LAP) with or without accompanying pulmonary lesions.

Methods: This is a retrospective analysis of 73 patients who underwent new interventional bronchoscopy technique TBNA of intrathoracic lymphadenopathies in patients who had been hospitalized at KHMC – chest department or referred to the bronchoscopy unite from January 2013 to March 2017.

Results: A total of 73 patients were enrolled in the study. Fifty-eight (79.5%) were male and 15 (20.5%) were female. Male to female ratio was 3.8:1. The age of patients ranged from 32 to 79 years with a mean age of 63 years. The most common lymph node group which was sampled is subcarinal group in 36(49.3%) cases followed by right paratreacheal group in 26(35.6%) cases. Immediate analysis of samples using rapid on-site evaluation (ROSE) was done and showed that the samples were adequate in 61 (83.5%) of cases and inadequate in 12(16.5%) cases. Final diagnosis was obtained in 57(78%) cases. The most common diagnosis among our series was malignancy in 32(44.9%) cases followed by sarcoidosis in 13(16.6%) cases, and 9(12.3%) cases were normal. Of 32 malignancies, 25 patients (78.12%) had NSCLC, 4 patients (12.6%) had SCLC, 2 patients (6.25%) had lymphoma and one patient (3.12%) had metastatic sarcoma.

Conclusion: Despite our short experience in this field, we have excellent result combatable with others results from literature. Accordingly, we recommend using the conventional bronchoscopy TBNA as standard procedure at KHMC, where it will help to minimize the need of more invasive procedures, their complications and longtime hospital stay.

Keywords: interventional bronchoscopy, TBNA, ROSE, intrathoracic LAP.

(166)
Precision Medicine Comes to Advanced Asthma Care

L G McAlpine MD (UK)

The principal symptoms that define asthma are wheezing and chest tightness, and the diagnostic tests for asthma focus on variable expiratory airflow limitation. It is known that airway inflammation underlies asthma and classical guidelines for its treatment use a combination of bronchodilator drugs and inhaled corticosteroids in a ladder of increasing dosage relating to clinical severity. This approach to treatment based on the severity of the disease fails to achieve adequate control in many patients. Asthma is increasingly recognised as being a heterogeneous condition and characterisation of the individual patient has begun to open the way to more precise treatments. Examples of real patients will be used to illustrate evolving clinical practice in asthma.

(167)
Complications of VATS Lobectomy

Henrik Jessen Hansen MD (Denmark)

VATS is now well established and with several benefits to the patient but need to be performed safely. The lecture will be based on the paper from the ESTS MITIG group: Major intraoperative complications during video-assisted thoracoscopic anatomical lung resections: an intention-to-treat analysis. Eur J Cardiothorac Surg. 2015 Oct;48(4):588-98.

(168)
Latest Updates in The Treatment of Hormone Positive Her2 Breast Cancer

Nuhad Ibrahim, MD (USA)

the latest advances in the management of HR+ve advanced breast cancer. Special focus will be given to the CDK4/6 inhibitors with a description of the MONALEESA program describing the role of Ribociclib in 1st, 2nd line and pre-menopausal patients. Efficacy as well as safety will be discussed

(169)
Venous Thromboembolism Prophylaxis for Ambulatory Cancer Patients.

Hikmat Abdel-Razeq MD (Jordan)

Venous and, to a lesser extent, arterial thrombosis are common complications encountered in patients with cancer during the course of their treatment and follow-up. In addition to many patient-related factors and chronic comorbidities, cancer itself or its treatment, including surgery and chemotherapy, contribute significantly to this high rate.

Given its silent nature; the incidence and mortality rates of venous thromboembolism (VTE) are probably under-estimated. In a recent observational cohort study using the UK Clinical Practice Research Datalink, researchers identified a total of 6,592 active-cancer-associated VTEs among 112,738 cancer-associated person-years of observation. The incidence rate of first VTE in patients with active cancer was 5.8 [95 % confidence interval (CI), 5.7-6.0] per 100 person-years.

In an earlier study using the California Cancer Registry, 3775 (1.6%) patients were diagnosed with VTE within 2 years of follow up among a group of 235,149 cancer cases in that registry. Expressed as events per 100 patient-years, this rate varies with the cancer type, reaching as high as 20.0 in patients with metastatic pancreatic cancer.

Recurrence of thrombosis is also more common in cancer patients. In the UK Clinical Practice Research Datalink discussed above, the overall incidence rate for recurrence was 9.6 (95 % CI 8.8-10.4) per 100 person-years. Recurrence was much higher soon after cancer diagnosis, with a peak in the first 6 months at 22.1 per 100 person-years. Although most patients survive VTE, serious and costly long-term complications may be encountered. Following an episode of deep vein thrombosis (DVT), almost one-third of patients will suffer venous stasis syndrome (post-thrombotic syndrome) manifested by painful swelling and recurrent ulcers. On the other hand, pulmonary embolism (PE) is associated with substantial morbidity and mortality, both tend to be higher among cancer patients, and those who survive such event may develop chronic complications like pulmonary hypertension. Additionally, patients with active cancer, when they develop a clot, need long term anticoagulation with its associated high risk of bleeding complications. Delays or even discontinuation of chemotherapy are frequently encountered, too. All, lead to consumption of healthcare resources and negatively affect the quality of life of such patients.

Additionally, many studies had shown that VTE in cancer patients can negatively impact their survival. In a large study using the Danish Cancer Registry, Sørensen et al. examined the survival of patients with cancer and VTE compared to those without VTE matched for many factors, including the type and duration of cancer diagnosis. The one year survival rate for patients with VTE was significantly lower than those without (12% compared to 36%, $p<0.001$).

Another retrospective cohort study that used the discharge database of 66,106 adult neutropenic cancer patients with 88,074 hospitalizations at 115 medical centers in the United States reached similar conclusions.

Despite the tremendous efforts made to reduce thromboembolic episodes in cancer patients, VTE continues to be encountered in our daily practice, especially among ambulatory patients undergoing active chemotherapy. In a recent Cochran updated review of the subject, authors confirmed that VTE prophylaxis with LMWH significantly reduced the incidence of symptomatic VTE in ambulatory cancer patients treated with chemotherapy. However, the risk of major bleeding, while not statistical significant, suggests extra caution before recommending such approach in routine clinical practice.

Additional studies, investigating targeted groups of cancer patients, considering their disease or its treatment are needed and hopefully will improve the efficacy of anticoagulation enough for us to accept the risk of potential bleeding.

(170)
Myelodysplastic Syndromes (MDS)

Aref Al-Kali MD (USA)

Myelodysplastic syndromes are clonal hematopoietic stem cell disorders characterized cytopenias, need for blood products transfusion and have the potential to evolve into acute myeloid leukemias. Several factors influence outcome including the number of lineage involved, the number of myeloid blasts and the chromosomal abnormalities. Recently it was found that germline mutations could also affect prognosis but has

not made it yet into a standardized prognostic model. Due to hypermethylation abnormalities found in MDS, demethylating agents (azacitidine and decitabine) have been approved in the US for the treatment of MDS. However, only allogeneic hematopoietic cell transplantation can offer potentially curative option but is not available to majority of cases. Additionally multiple growth factors have been the mainstream of low grade MDS patients treatment. Chemotherapy can infrequently be given to high grade MDS patients fit for intensive therapy. Currently, there is no approved drugs for relapsed refractory MDS, but promising options including TGFb inhibitors, RAS mimetic, targeted tyrosine kinase inhibitors (Like IDH1 and IDH2 inhibitors) are promising.

(171)
Changing Paradigms in Urothelial Carcinoma

Prof.Enrique Grande (Spain)

"Immunotherapy is changing the natural of several solid tumors including bladder cancer. Long term long lasting responses are observed in one of four or one of five patients treated with clinically significant number of patients alive after 2 years of treatment. This is something totally unexpected with classical chemotherapy. Three drugs have been approved by the EMA in this field after failure to at least one platinum-based chemotherapy: atezolizumab, nivolumab and pembrolizumab. In addition, atezolizumab and pembrolizumab are also approved as front line treatment of patients ineligible to receive cisplatin-based chemotherapy if the tumor expresses PD-L1. A huge effort is still ahead of us in order to find reliable biomarkers that may help us to select those patients who really benefit in the long term for these treatments, the management of novel side effects related to the hyperactivity of the immune system, and, certainly, the financial toxicity and access to these new and promising drugs"

(172)
Update on Non-Infectious Pulmonary Complication of BMT

Ayman O. Soubani MD (USA)

Hematopoietic Stem Cell Transplantation (HSCT) is an important treatment for a variety of malignant and nonmalignant conditions. The survival of HSCT recipients has significantly improved in the last two decades. Pulmonary complications remain a major cause of mortality and morbidity in these patients. Advances in the management of pulmonary infectious complications have increased the significance of non-infectious complications. These are generally divided to early (<100 days following HSCT) and include peri-engraftment syndrome, diffuse alveolar hemorrhage, and idiopathic pneumonia syndrome. The improved survival of HSCT recipients has put more emphasis on late pulmonary complications. Bronchiolitis obliterans syndrome is the primary late pulmonary complication in allogeneic HSCT recipients. Although management of patients with bronchiolitis obliterans remains challenging, there is some progress in controlling the disease. This presentation provides an overview of the early and late non-infectious pulmonary complications following HSCT including incidence, diagnosis and management.

(173)
Episcleral Plaque Therapy for Ocular Tumors, KHCC Experience

Imad Jaradat MD(Jordan)

Aim: To evaluate the effectiveness of iodine-125 COMS plaque therapy for the treatment of Uveal melanoma At King Hussein Cancer Center, Jordan.

Methods and material: Retrospective case series of eyes with uveal melanoma treated by episcleral Iodine -125 COMS radioactive plaque therapy. Main outcomes studies included demographic, tumor features, eye salvage, visual outcome, metastasis, and mortality.

Results: Between September 2008 and Jan 2016, 28 eyes for 28 patients had intraocular uveal melanoma and treated by I-125 radioactive plaque. The mean age at diagnosis was 48 years and 16(57 %) were males.
The mean tumor thickness was 8mm (range: 4-13 mm), and 27(96%) patients had medium or large size tumor. The radioactive plaque size used was of 16 mm (range: 12-20mm0.The mean apical dose was 83.5Gy (range 81-87).
At median follow up of two years9range (1-7 years), eye salvage rate was 93%.four (15%)

patients had distant metastasis, and three (11%) were dead. Fifty percent of patients had visual acuity better than 20/200 at last date of follow up.

Conclusion: Our preliminary results are encouraging and are comparable to that to other countries worldwide.

Keywords: Uveal Melanoma, Plaque Therapy, Iodine-125

(174)
The Role of Radiotherapy in the Management of Cervical tumors Royal Medical Services Experience

(Hana A. Al-Mahasneh, MD (Joradn Ahmad S. Al-Naanah MD, Laith R. Al-Hazaimeh MD, Rana F. Al-rawajfeh, Radiotherapist, Amjad O. Al-Momani, MD

Introduction: Cervical cancer is the second most common malignancy that affects the female genital tract following endometrial cancer.
In Jordan, there are 50 new cervical cancer cases diagnosed yearly in average.
Concurrent chemo-radiotherapy followed by brachytherapy is the treatment of choice for patients with locally advanced cervical tumors. Brachytherapy service was launched in the Royal Medical Services in Nov. 2014.

Methods and materials: In the period between Nov. 2014 and Jan. 2018, 95 patients with established diagnosis of cervical cancer were referred to our center for radiotherapy, of them 23 had stage 4 disease and received palliative radiotherapy , 10 patients were treated following surgery with or without chemotherapy, the remaining 62 patients received concurrent chemo-radiotherapy as a radical treatment, the outcomes of treatment of those 62 patients regarding local control were documented with a median follow up time of 28 months.

Results: Of the 62 patients with locally advanced disease who received radical concurrent chemo-radiotherapy, 50(80.6%) achieved good response and given brachytherapy boost, 12 (19.4%) did not achieve good response enough to proceed for brachytherapy, and were referred for possible surgery or chemotherapy.
Follow up imaging studies and pap smears+/- biopsies of the 50 patients who received brachytherapy showed complete response in 48 (77.5%) patients.

Conclusion: concurrent chemo-radiotherapy followed by brachytherapy is an effective way of treatment of locally advanced cervical cancer, and our results are comparable to the data published worldwide.

Keywords: Cervical Cancer, Concurrent Chemo-radiotherapy, Brachytherapy

(175)
Clinical Characteristics and Treatment Outcome for Adult Medulloblastoma: A Retrospective Analysis

Abdellatif Al-Mousa MD (Jordan)

Background: Medulloblastoma is a rare brain neoplasm in adults,management of this disease usually follows pediatrics treatment guidelines. The purpose of this study is to reportclinical characteristics, prognostic factors and treatment outcome for patients treated with surgery and radiotherapy.

Patients and Methods: A total of 42 patients aged 18 years or more with medulloblastoma treated at King Hussein Cancer Center (KHCC) between 2007 and 2016 were retrospectively reviewed. Patients were staged, with neuro-radiologic examination and by cerebrospinal fluid cytology, according to Chang's staging system. Total or near-total tumor resection was achieved in 27 cases,while subtotal resection performedin 14 patients and biopsy in one. Desmoplastic medulloblastoma wasdiagnosedin 20 patients, classic variant in 20 cases and two had anaplastic tumor. 26 patients were assigned to standard-risk group and 16 to the high-risk group. All patients receivedadjuvant cranio-spinal irradiation followed by posterior fossa boost. Patients'baseline and disease characteristics were tested as prognostic factors for progression-free survival (PFS) and overall survival (OS) using univariate and multivariate analyses.

Results: The follow up time reached 9.5 years (median 36 months).Five-year progression free survival (PFS) and overall survival (OS) were 67% and 71% respectively. For standard risk patients,

5-year PFS and OS were 92% and 89%, and for high risk patients were 34% and 44% respectively. On univariate analysis, higher risk group and presence of metastasis were poor prognostic factors for PFS (p=0.004;p=0.008 respectively) and OS (p=0.032; p=0.043 respectively). While on multivariate analysis all prognostic factors have failed to show statistically significant difference.11 patients (26%) have relapsed after a median time of 27 months (range, 11–68 months); 6 relapses were local and 4 distant, one patient had both local and distant relapse.

Conclusion: Management of adult medulloblastoma lacks evidence-based guidelines,poor survival in high-risk patient may necessitate treatment intensification with chemotherapy. Recently, medulloblastoma is stratified into four molecular subgroups, predicting prognosis and pattern of relapse(i.e, WNT clusters and group4). Ongoing trials are testing novel agents to improve the outcome of the disease.

Keywords: Adult Medulloblastoma, Surgery, Radiotherapy, Outcomes.

(176)
Updates of Multiple Myeloma

Majdi Jdayeh MD (Jordan)

Multiple myeloma (MM) is single clone neoplastic proliferation of plasma cells, forming abnormal monoclonal immunoglobulin . And can be solitary soft tissue lesion (plasmacytoma) or multiple bone marrow lesions (Multiple myeloma)

Diagnostic criteria: ≥10 percent bone marrow plasma cells and/or biopsy proven plasmacytoma. Plus evidence of one or more of:
*Multiple myeloma defining event: CRAB ●Hypercalcemia.●Renal insufficiency. ●Anemia ●Bone lesions.
*a biomarker associated with near inevitable progression to end-organ damage: ●≥60 percent clonal plasma cells in the bone marrow ●Involved/ uninvolved free light chain (FLC) ratio of 100 or more. ●Magnetic resonance imaging (MRI) with more than one focal lesion.

Pretreatment evaluation: history, physical examination and investigations are important to confirm diagnosis, the stage of disease, and the patient factors (performance status).

Specific tests are performed: complete blood count , peripheral blood smear, chemistry, lactate dehydrogenase, beta-2 microglobulin. serum protein electrophoresis (SPEP) with immunofixation Serum free light chain (FLC) measurement and ratio , Bone marrow aspiration and biopsy with immunophenotyping, cytogenetics, and fluorescence in situ hybridization (FISH). Radiologiocal Skeletal survey, MRI, PET/CT SCAN

Risk stratification: high-risk, intermediate-risk, or standard-risk MM based upon the results (FISH) for translocations and/or deletions or specific conventional cytogenetics

Staging: International staging system (ISS) and Revised-ISS (RISS).

Initial therapy: ● HCT eligible Patients receive induction therapy for two to four months followed by HCT.
● HCT ineligible Patients receiving induction, until progression in czse of lenalidomide plus dexamethasone. , and for 12 to 18 months in case of alkylator or bortezomib based ptotocol thenObservation for progression.

(177)
Xen Gel Stent Implantation: Personal Experience And Clinical Trial Results

Ingeborg Stalmans MD (Belgium)

The XEN Gelstent is a minimally invasive filtering glaucoma procedure which aims at the subconjunctival outflow pathway. The different steps of this surgical technique will be explained and illustrated by photos and videos, while providing tips and tricks to optimize the implantation technique. The results of the 2-year prospective multicenter APEX trial will be presented.

(178)
Medical Treatment of Glaucoma: Guidelines and Beyond

Wisam Shihadeh MD (Jordan)

Glaucoma is defined as a group of diseases that are characterized by an optic neuropathy with progressive injury to retinal ganglion cells and

their axons. This optic neuropathy has a specific pattern called the cupping of the optic nerve head. Glaucoma is usually associated with high intraocular pressure and a specific pattern of visual field loss.
The aim of treatment in glaucoma patient is to reach the target intraocular pressure. This can be achieved through medications, laser or surgery. Medical treatment of glaucoma has started in the nineteenth century and many innovations in that field have been achieved since that time. The main families of antihypertensive eye drugs include prostaglandin analogues, B-blockers, A2 agonists, carbonic anhydrase inhibitors and parasympathomimetics. Several factors play a role in choosing he right medication for your patient, those include efficiency, side effects, contraindications as well as cost.

(179)
Ultrasound Cilioplasty (UCP): Efficacy and Safety

Ingeborg Stalmans MD (Belgium)

UCP is an technology which uses high-intensity focused ultrasound to coagulate the processes of the ciliary body, thereby reducing aqueous production and lowering intra-ocular pressure. During this lecture, the technology and mechanisms of action will be explained. The different steps of the procedure will be explained and illustrated and the one-year results of the European efficicacy and safety study will be presented.

(180)
Risk Of Blindness in Glaucoma Patients

Muhannad Albdour, M.D (Jordan)
Shrouq Albtoush M.D
Zakaria Ahmad Suliman RN

Optic nerve damage and visual field loss are the irreversible consequences of uncontrolled glaucoma. Despite the rapid revolutions in glaucoma diagnosis and treatment, still glaucoma patients may go blind. Is it because of the multifactorial and progressive nature of this disease? Late presentation of this disease, lack of screening program in Jordan or to poor compliance and adherence to medications?
In this presentation I will elaborate the risk factors in Jordanian glaucoma patients, how their disease progress to blindness in one or both eyes, how to prevent this tragic end and provide good quality of life to them.

(181)
The Battle for The Perfect Bleb: Antifibrosis Beyond Antimitotics

Ingeborg Stalmans MD (Belgium)

This lecture will elaborate on the journey from in vitro over in vivo studies to a prospective randomized placebo-controlled clinical trial to study the potential of bevacizumab to reduce fibrosis and thus improve the outcome of filtering surgery. The results of this research endeavor illustrate the importance of translational research to improve our clinical practice.

(182)
Management of Endophthalmitis: Time to Change

Felipe Dhawahir-Scala, MD (UK)

Endophthalmitis remains a devastating postoperative complication. With the current advances in technology and treatment options the way this condition I should be managed is discussed.

(183)
Surgical Management of Vitreomacular Interface Abnormalities in Diabetic Patients

Faisal Fayyad MD (Jordan)

Various vitreo-macular disorders in diabetic patients includes:
- Macular edema, CME
- Epimacular membrane
- Vitreo-macular traction syndrome
- Lamellar macular hole
- Full thickness macular hole

While total PVD is protective for diabetic retinopathy, anomalous PVD carries high risk of progression of diabetic retinopathy, and there is strong association between attached posterior vitreous and diabetic macular edema as well as all

the above mentioned anomalies.
Diabetes is a high risk disease for the development of vitreo-macular interface abnormalities in diabetic patients.
Vitreous surgery can be an effective method in treating these abnormalities
ILM peeling may be helpful in some cases (macular holes …)

(184)
27 G Vitrectomy: The good and bad

Felipe Dhawahir-Scala, MD (UK)

We discuss the initiation and adaptation in using 27G Pars Plana Vitrectomy for different vitreoretinal pathologies

(185)
To Peel or Not to Peel the Internal Limiting Membrane in Idiopathic Epiretinal Membranes and Macular Holes Surgeries

Basel Baarah MD (Jordan)

Vitrectomy with internal limiting membrane (ILM) peeling is used to treat eyes with a macular hole (MH) or an epiretinal membrane (ERM). In MH surgery, ILM peeling results in a high rate of successful closure and low reopening rate. In ERM surgery, ILM peeling results in disappearance of retinal folds, reduced recurrences, and disappearance of pseudoholes. At the same time, ILM peeling has an adverse effects including damage to the function of Müller cells, selective delay in recovery of the b-wave of focal macular electroretinograms, decreased retinal sensitivity, dissociated optic nerve fiber layer and peripheral visual field defects. Whether to consider peeling of the ILM a surgical method for treating idiopathic ERM and macular holes continues to be debated among vitreoretinal surgeons. This will be elaborated in my talk.

(186) Strategies in Eye Trauma Cases, and Intraocular Foreign Bodies.

Faisal Fayyad MD (Jordan)

Management strategy Don't start the surgery without having a plan, since there are no two trauma cases absolutely alike, therefore all need an individualized treatment plan.
Incase of intra ocular foreign body, you have to focus on the safe removal, prevention of endophthalmitis and vision rehabilitation.
We have to consider posterior segment involvement in an eye with penetrating injury unless proven otherwise.

Challenges Closure of the posterior wound is often impossible with high risk of retinal incarceration. While incarceration may occur at time of injury or as scarring forms at the wound.

Management Primary surgery: close entrance and exit wounds if anterior to equator
Further anterior segment reconstruction if necessary.
Limited PPV to remove vitreous traction between entrance and exit wounds
Secondary surgery within 4 days
Choriretinectomy is to be considered in case of vitreo-retinal incarceration to the scleral wound

Conclusion The final surgical and functional outcome depends on the severity of the trauma and its correct management.

(187)
Management of Submacular Haemorrhage

Felipe Dhawahir-Scala, MD (UK)

Submacular haemorrhage is not an unusual complication in patients with Age related Macular Degeneration. The Best surgical approach in this type of pathology following the Manchester Royal Eye Hospital submacular haemorrhage treatment protocol will be highlighted and discussed in this talk

(188)
Advances in Dry Eye Clinic and Management

Dilek Dursun Altinors MD (Turkey)

Developments in dry eye and ocular surface diseases including new definitions with DEWS insights and treatment modalities are presented. Mainly clinical cases are presented and discussed on clinical and research basis. The place of technology and evaluation methods are included.

Improvements in medical treatment is conveyed as well.

(189)
Keratoprosthesis… Managing The Unmanageable!

Nancy Al Raqqad, Ahmad Husban MD, Thani Abbadi RN

Objectives To present my experience in dealing with end stage corneal blindness using two different kinds of keratoprosthesis at King Hussein Medical Centre

Methodology Twenty six patients with end stage corneal blindness not amenable to conventional keratoplasty were treated at king Hussein medical center between 2014-2018. Boston type 1 keratoprosthesis was used in 24 cases and osteo-odonto-keratoprosthesis (OOKP) in 2 cases.

Results and Discussion 22 cases out of 24 who underwent Boston kpro showed improvement in vision between 6/9-6/60. Patients who underwent OOKP showed improvement in vision 6/60 in one patient and 6/18 in the other patient. Indications, surgical technique, complications and limitations of both types of kpros will be presented.

Conclusion Keratoprosthesis surgery has become a widespread solution for patients with corneal disease not amenable to conventional keratoplasty. We at RMS have become an accredited centre to perform such proecdurescompeteing with international standards of care.

(190)
Postsurgical Fine Tuning in Residual Refractive Errors

Dilek Dursun Altinors MD (Turkey)

My purpose is to share how I manage postsurgical refractive errors.
Major disease profile is post cataract residual refractive errors especially in premium IOL surgeries. The importance of fine tuning with excimer laser, problems with biometry measurements, lens rotations in toric IOLs are emphasized.
Visual disturbances post pterygium surgery is discussed and refractive management after penetrating keratoplasty including selective suture removal and astigmatic keratotomy are debated.

(191)
Descemet membrane Endothelial Keratoplasty

Amal Mosa Alwreikat, MD, HishamAlrawashdeh, MD, Amer Alwreikat, MD, Hosamadden Alkayid, MD

Objectives Endothelial Keratoplasty (EK) has become the standard of care for the surgical treatment of endothelial diseases of the cornea. Many techniques has revolutionized keratoplasty techniques recently including DSAEK, UT-DSAEK and DMEK

Methodology This lecture will present a comprehensive overview of the advantages of DMEK surgery, the donor tissue selection criteria, indications and the detailed surgical techniques of the preparation of tissue and procedure.This lecture will highlight the differences and added value of this revolutionary procedure.

Results and Discussion I will also present some of my surgical cases, outcomes and follow up course of the surgical cases.

Conclusion DMEK procedure is standardized with no touch technique DMEK represents the fastest and having the most complete visual recovery and Minimal tissue cost

(192)
Ocular Discomfort After Different Epithelial Debridement Techniques for Corneal Collagen Cross Linking

Hosam Alkayid, Dilek D. Altnors, MD

Objectives to compare the severity and duration of ocular discomfort after three different epithelial debridement techniques for corneal collagen cross linking (CXL).

Methodology 65 eyes of 54 keratoconus patients (M/F:35/19) were included in the study. CXL was performed after excimer laser transepithelial phototherapeutic keratectomy (PTK) in 18 eyes (Group 1), alcohol assisted epithelial removal

in 27 eyes (Group 2) and mechanical epithelial debridement in 20 eyes (Group 3). Preoperative and postoperative (3rd month) best corrected visual acuity (BCVA), objective refraction and keratometry results were recorded. Patients were asked to complete a questionnaire regarding their subjective evaluation of postoperative symptoms of foreign body sensation, tearing, photophobia and burning at the end of the first postoperative week. For each subjective symptom, the duration and severity with a score between 0-5 were recorded. Paired samples t test was used to compare pre- and postoperative clinical findings. One-way ANOVA test was used to determine the differences between three independent groups.

Results and Discussion the Snellen BCVA increased from 0.51 ± 0.27 to 0.58 ± 0.21 (p=0.05). Objective mean spherical and cylindrical refraction decreased from -5,08 ± 2,78D to -4,46 ± 2,91D (p=0.22) and from -3,45 ± 2,73D to -3,03 ± 1,97D (p=0.25). Mean maximum keratometry reading (K max) decreased from 57,63 ± 4,73D to 56,13 ± 4,47D (p=0.001). The mean score for foreign body sensation was highest in Group 3 (4.50±0.53) and lowest in Group 1 (2.10±1.85) (p=0.01). The mean scores for tearing and photophobia were lowest in Group 1 and similar scores were observed in Groups 2 and 3, although these differences were not statistically significant (p=0.84 and p=0.13 respectively). The duration of photophobia was shortest in Group 1 (1.50 ± 2.37 days), followed by Group 3 (2.00 ± 1.31 days) and then Group 2 (4.00 ± 1.83 days) (p=0.04).

Conclusion The severity and duration of subjective symptoms during the first postoperative week after CXL appear to be mildest with epithelial debridement by excimer laser transepithelial PTK when compared to alcohol assisted debridement and mechanical debridement.

(194)
Clinical Classification System for the Spectrum of Microphthalmos (MAN)

Thabit Odat, FRCS, JBO, Ophthalmic Consultant, Oculoplastic Surgeon, Jill A Foster, MD, FACS, Oculofacial and Ophthalmic Consultant, Medical Director Of Plastic Surgery Ohio, Daniel Straka, Ophthalmologist, Oculofacial surgeon, Columbus, Ohio.

Objectives To describe and categorize the microphthalmos/ anophthalmos during the study period and groups them into 4 different categories. Methodology Retrospective medical charts of 48 consecutive congenital unilateral or bilateral MAN patients who were treated in the ophthalmology department at Nationwide Children's hospital, Columbus, Ohio, united States, between 2004 and 2015 were reviewed. Nationwide Children's Hospital Institutional Review Board (IRB) prospectively granted ethical approval. Clinically, congenital MAN were divided into the following categories: 1) Small eye but relatively normal anatomy (nanophthalmos), 2) Small eye- looks like an eye- abnormal structures, resemble lids but small, 3) Tiny eye, not much eyelids, and 4) Microphthalmos/ anophthalmos associated with other craniofacial anomalies or severe bone changes. Palpebral fissure length (vertical and horizontal), brow horizontal length, and forniceal depth. Forniceal depth was graded as: 1) Relatively normal, 2) Usable, hold conformer, 3) Shallow, does not hold conformer, and 4) Minimal or non-existent. Group 2 are patients with one or no measurements of the above-mentioned parameters.

Results and Discussion A total of 63 microphthalmos/ anophthalmos orbits (33 unilateral: 20 right, 13 left, and 15 bilateral) met the criteria over the study period and included in the study. Group 1 composed of 25 patients (16 males and 9 females) with a mean age of 7.4 ± 5.95 SD (1.1 – 15.4 years). Group 2 composed of 23 patients (12 males and 11 females) with an average age of 8.25 ± 5.952 SD (0.5- 28 years). Most of the affected orbits belong to category 2 and 4 (22 and 21 orbits respectively), followed by category 1 (19 orbits), and the least was category 3 (1 orbit). Various and multiple surgical procedures were performed for categories 3 and 4 patients and less frequent and less invasive procedures for categories 1 and 2.

Conclusion Overall, this study demonstrated favorable results of orbital and periorbital soft tissue growth. The classification of microphthalmos into 4 categories offered a broader and more comprehensive way to deal with those patients. Adopting our classification system for the spectrum of MAN, grading system for forniceal depth, and measurement of the brow horizontal length will help and expedite the process of treatment

(195)

Causes and risk factors of visual impairment among uveitis patients in Jordan

Ahmed E. Khatatbeh, MD, Basel T. Baara,MD Mohammad Al droos,MD Marwan M. Otoum,MD Marwah Teamat,MD Shrouq R. Albtoush,MD

Objectives to investigate the causes of visual impairment among Jordanian patients suffering from uveitis

Methodology this was a prospective study conducted at King Hussein Medical Centre between January and June 2018. All patients suffering from uveitis who attended to the ophthalmology clinic were enrolled in the study. The patients were subjected to detailed ophthalmic exam including best corrected visual acuity (BCVA) using snellen chart, anterior segment exam using the slit lamp, intra ocular pressure exam using Golmannapplanation tonometry and posterior segment exam using 78 and 90 diopter Volk lenses. The outcome of ocular exam was recorded and the cause/causes of visual impairment were identified.

Results and Discussion 65 patients age between 6 and 58 years (mean 32±12) years were enrolled in the study. Male to female ratio was (1.2:1). 55% of patients had BCVA of between (0.5 and 0.3), 32% had BCVA of (<0.3 to 0.1) and 13% had BCVA of less than 0.1. Cystoid macular edema was the most common cause of visual impairment in uveitis patient (34%) followed by cataract (21%), glaucoma (18%), macular scar(8%)and optic nerve pallor (6%).

Conclusion Cystoid macular edema was the most common cause of visual impairment in uveitis patient. Patients with posterior uveitis, long duration of uveitis and uveitis secondary to known systemic disease were important risk factors for severe visual impairment (<0.1).

(196)

The outcome of combined trabeculotomy and trabeculectomy in the treatment of primary congenital glaucoma

Hiba khraisat, Ahmad E. Khatatbeh, MD.

Objectives To evaluate the efficacy of combined trabeculotomy(TO) and trabeculectomy(TE) procedure as an initial surgical intervention in primary congenital glaucoma(PCG) to compare the results with that of primary trabeculotomy procedure.

Methodology This retrospective was conducted at Queen Rania Al Abdullah Children Hospital. All patients who underwent combined TO and TE for PCG between 2010 and 2016 were included in the study. Patients who lost follow up within the first year post operatively, patients who underwent more than one surgical procedure and patients with corneal haziness that prevented optic disc evaluation for cupping were excluded from the study. Patients were divided randomly into two groups; Group A includes those who underwent primary trabeculotomy alone and Group B are those who underwent combined TO and TE. The outcome of eye examination which included assessment of visual acuity, corneal haziness, intraocular pressure(IOP) measurement and optic disc cupping were recorded prior to surgical intervention and post operatively. The results were analyzed and compared. Surgery was assumed to be successful when IOP was less than 20mmHg post operatively without any anti glaucoma medications and there was no progression of optic disc cupping and no development of corneal haziness.

Results and Discussion 60 patients with PCG were included in the study .70% of patients were males (ratio 2.3:1). The disease was bilateral in 43 patients (71.7%)and in unilateral cases the right and the left eyes were equally affected (ratio 1:1). The mean cup disc ratio(CD) was 0.75 in group A and 7.4 in group B preoperatively. Post operatively the mean CD ratio was 0.55 in group A and 4.7 in group B. The mean age at which surgery was performed for eyes that showed reduction in CD ratio was 6.9 months in group A and 7.2 months in group B compared with 23 and 21 months for the remaining patients with no reduction in cupping in group A and group B respectively.

Conclusion: Combined TO and TE in PCG was superior to primary trabeculotomy as an initial surgical intervention in the management of PCG with better control of IOP and more improvement in CD ratio. The surgery has to be performed as early as possible to gain an improvement in CD ratio.

(197)
Topical Anesthesia: To Shift or Not to Shift

Laith Taisir Al Khateeb, Munsifa Anagreh Mohammad Aqarbeh

Objectives To evaluate the efficacy of topical anesthesia; topical tetracaine and intracameral injection of lignoacaine 4% diluted in balanced salt solution and adrenaline in selected cataractous patients as a substitute to the traditional retrobulbar block during phacoemulsification. And to share with you the surprises and the difficulties I faced during my 40 cases of phacoemulsification surgery under topical and intracameral anaesthesia.

Methodology This study was conducted Prospective at King Talal military hospital in Al Mafraq governate between January and April 2018 by a junior specialist method to decide surgeon and patients' satisfaction at the end of the procedure. The first forty cases were included. The procedure was explained to the patients preoperatively in the clinic, and all the details were given to them, and a consent form was signed by them in the day of surgery. All patients were given topical anesthesia 5 minutes before surgery (1 to 2 drops of tetracaine) and 0.1-0.3 ml of the mixture (0.5cc of 4% lignocaine + 0.5cc of Balanced Salt Solution+ 0.5 adrenaline) is given through the side or main incision into the anterior chamber. All surgeries were done by the same junior specialist (LKh), the same phacoemulsification device was used for all patients (Bausch & Lomb-Stellaris), the same approach of divide and conquer were attempted in all 40 cases, and finally the same intraocular lenses were used in all patients (Akreos foldable IOL from Bausch & Lomb). Pain scale from 0-10 was used to assess the severity of pain, where 0, no pain or discomfort and 10, is intolerable pain.

Results and Discussion After interviewing the patients post operatively; 2(5%) of the 40 patients had severe pain (more than 8 on the scale of pain) during the surgery. No problems were encountered regarding eye movement and blepharospasm, the rate of posterior capsule rupture and other intraoperative complications were no different than those I had during my phacoemulsification surgeries under retrobulbar local anaesthesia.

Conclusion Due to my brief encounter and experience I can say that topical anesthesia is a safe and very successful method that can replace retrobulbar in selected cataract patients but it will need more and more experience.

(198)
The Value of Touch Imprints in Pediatric Pathology

Samir Kahwash M.D (USA)

The presentation will focus on the following goals & objectives:

- Describe the special & added value of Touch Imprints in pediatric pathology.
- Describe the role of Touch Imprints in saving time and resources in pediatric tumor pathology.
- Discuss case examples and a suggested general approach

(199)
Reversal of DOACs

Jecko Thachil MD (UK)

DOACs or direct anticoagulants have transformed the management of atrial fibrillation and venous thromboembolsim. They have several advantages over the vitamin K antagonists like warfarin including less incidence of intracranial bleeding and clinically relevant major bleeding. However, the incidence of bleeding is not nil and there may be circumstances during which reversal of these drugs may be required. Specific antidotes are available for one of the DOACs while antidotes are being developed for the others. Until they are licensed, prohaemostatic agents may be required to deal with DOAC-related bleeding. Emergency reversal of DOACs may also be required in the cases of urgent surgeries.

(200)
Essentials of Quality Management in Pathology and Laboratory Medicine

Maher Sughayer MD (Jordan)

Clinical laboratories including anatomic pathology departments must establish quality management systems to help them meet standards of excellence

in health care. A quality management system can be defined as "coordinated activities to direct and control an organization with regard to quality". This definition is used by the International Organization for Standardization (ISO) and by the Clinical and Laboratory Standards Institute (CLSI). In more simple terms clinical laboratories and anatomic pathology must have laboratory quality which can be defined as: accuracy, reliability and timeliness of reported test results.
The reasons for this is obvious as inaccurate results may lead to: unnecessary treatment, treatment complications, failure to provide the proper treatment, delay in correct diagnosis and additional and unnecessary diagnostic testing. The consequence of those will be: increased cost in time and personnel effort, and often in poor patient outcomes.
Twelve components are essential for a quality management system. These are: Organization, Personnel, Equipment, Purchasing and inventory, Process Control, Information Management, Documents and records, Occurrence Management, Assessment, Process Improvement, Customer Service and Facilities and safety.
The outcome of implementing a quality management system is improved patient safety, employees' safety and public trust in the clinical laboratories.

(201)
The Use of Immunohistochemistry in Breast Lesions

Ahlam Awamleh MD (Jordan)

Many diagnoses in breast pathology can be made with H&E sections. However, immunohistochemistry is a valuable tool in routine breast pathology, used for both diagnostic and prognostic parameters; being used as an aid to distinguishing usual ductal hyperplasia from atypical ductal hyperplasia/low-grade carcinoma in situ; subtyping a carcinoma as ductal or lobular, basal or luminal; ruling out microinvasion in extensive intraductal carcinoma; distinguishing invasive carcinoma from mimics; and establishing that a metastatic carcinoma of unknown primary site has originated in the breast. Biomarker studies with IHC in triple-negative breast carcinoma may help develop targeted therapies for this aggressive breast cancer. Over the past few years, an expanding role in breast pathology has been facilitated by a growing list of available antibodies; establishing its key role in guiding adjuvant therapy decisions and sentinel node staging in breast cancer.
As new, targeted treatments for breast cancer are developed, pathologists can expect additional immunohistochemistry applications in the future. The aim of this presentation is to provide a practical update on the use of IHC markers in differential diagnoses in breast lesions, including benign, atypical, precancerous, and malignant tumors.

(202)
Acute Myeloid Leukemia: WHO 2016 update and New Unusual Subtypes

Samir Kahwash M.D (USA)

- Highlights of AML diagnostic criteria changes according to WHO 2016
- Newly described pediatric AML subtypes including: AML – RAM and Promyelocytic Leukemia with no RARA abnormality

(203)
The Role of Thromboelastogram in Bleeding.

Jecko Thachil MD (UK)

Management of massive bleeding is not an uncommon scenario in the healthcare setting. This is often encountered in the clinical situations like cardiothoracic surgery, liver transplant surgery, major trauma and post-partum haemorrhage. All these settings are associated with the development of coagulopathy and would require rapid assessment of the coagulation status to help with the selection and administration of specific blood products. In this context, conventional laboratory tests are unhelpful due to the time required for the test performance. The advent of thromboelastography has transformed blood management in these cases with rapid and accurate measurement of the whole haemostatic system. It is extremely helpful in guiding appropriate blood use in the massive haemorrhage setting and can be said to have contributed significantly to improved patient outcome.

(204)
Current Understanding of Eosinophilic Colitis and its Clinicopathological Characteristics.

Heyam Awad MD (Jordan)

Eosinophilic gastroenteritis was first described in 1937, however, it is still an ill-defined and poorly understood entity. It is a heterogenous group of disorders affecting any part of the gastrointestinal tract with eosinophilic oesophagitis being the best characterised entity.
Primary eosinophilic colitis is a rare disease that is defined as inflammation of any segment of the colon which is rich in eosinophils in the absence of secondary causes of tissue eosinophilia (these include inflammatory bowel disease, parasitic infections, drug allergies and neoplasia).
Most authors use 20 eosinophils per high power field (HPF) as the cutoff point to diagnose the disease, however, normal eosinophilic count varies among large bowel regions, reaching 30 per HPF in the caecum. It is not agreed if this count should consider the highest count in the biopsy or the average of several fields. We are performing a research on this in our department to determine the best method (results not ready yet but will be ready when presenting the lecture). We are also evaluating the claim that eosinophilic cryptitis is a good indicator of eosinophilic colitis.
Clinically the disease is said to be rare and affects mainly children and young adults. In our experience at Jordan University hospital the disease incidence is increasing and is frequently affecting adults.
Patients present mainly with diarrhoea and the majority respond dramatically to steroids. However recurrences can occur.
The pathogenesis of eosinophils colitis is not well understood but is believed to be related to allergic reactions and the increased incidence is probably related to the hygiene hypothesis. Eosinophils are attracted to the colon under the influence of cytokines, mainly IL 5 and eotaxin. Once stimulated, eosinophils degranulate and release cytokines that cause tissue destruction resulting in the inflammatory response seen in eosinophils colitis. Notably T helper 2 lymphocytes aid homing of eosinophils in the colon; this supports the role of hygiene hypothesis which indicates that decreased infections during childhood switch the differentiation of T helpers from T helper 1 to T helper 2 which produces cytokines against innocuous environmental factors.

(205)
Antimicrobial Susceptibility Patterns at KHMC 2017

Mohammad Al-Maayteh M.D (Jordan)
Awatif alkaaneh. M.D, Shaden alsarayreh. M.D, Ayat alkhasawneh. M.D.

The aim of our study is to find out the percentage of antibiotic susceptibility testing to isolated bacteria obtained from samples received in microbiology department at princess Iman center from different wards and clinics at King Hussein medical center. From both adults and pediatric patients.
Materials and methods:
Over the period between January 1st 2017 and December 31st 2017, we received in microbiology department (52588) samples from all over King Hussein medical center wards, clinics and centers. All (urine, CSF, swabs, body fluids and discharges,) samples were cultivated on standard culture media Blood, Chocolate and MacConkey, incubated at 37°C for 24-48 hours. for blood culture bottles they were incubated in one of two different systems (Bactec and Bact alert systems) for 5 days, bottles flagged as positive growth were subcultured on (Blood, Chocolate and MacConkey media) then incubated at 37°C for 24-48.
After obtaining isolates from culture plates, both Gram positive and Gram negative bacteria underwent identification and susceptibility testing using (automated Vitek 2 compact system). Some isolates were confirmed or modified by manual chemical reactions and susceptibility testing using "E-test" and "Disc diffusion" methods.
Organisms with Isolates count less than 30 would be statistically unreliable, so they were not included in our study. "CLSI M100-S26" breakpoints were used to interpret MIC values, only the non-meningitis breakpoints were used. Susceptibility percentage was generated by including the first isolate of that organism encountered on a given patient and all duplicated specimens were eliminated.
For urine isolates we added specific antibiotics (Naldixic acid, Nitrofurantoin) and the results were listed in red. Some antibiotics were not routinely tested and marked as (N).

Results: Of the total (52588) samples received, (7100) cultures showed growth of either Gram positive or Gram negative bacteria. Gram-negative

bacteria accounted for 5803 (82%) and Gram-positive for 1297 (18%) of the total bacteria isolates. the most frequent Gram negative bacteria isolated were E.coli followed by K.pneumoniae with (2675, 1054) isolates respectively, while Staphylococcus.aureus was the most frequent Gram positive (740) isolates followed by Enterococcus.faecalis (237) isolates. For Gram negative bacteria, Carbapenems showed the best susceptibility results. Followed by Pipercillin-Tazobactam. On the other hand Gram Positive bacteria, on the top of the list, Vancomycin susceptibility percentage was slightly higher than Teicoplanin and Linezolid for most isolates tested.

Conclusion: Cumulative antibiogram report is considered one of the most important elements to monitor emerging trends in bacterial resistance to support clinical decision making, infection-control interventions, and antimicrobial-resistance containment strategies. As identification and susceptibility of the isolates could take a long time. So Antibiogram should be routinely reported annually and delivered to all health care providers.

(206) Lymph Node Pathology and Pediatric Lymphomas. Slide Seminar

Samir Kahwash M.D (USA)

This presentation will discuss:

- Causes of Lymphadenopathy in Children
- Lymph node biopsy work up and triage
- Histologic patterns of Pediatric Lymphomas

(207)
Challenging Cases in Bleeding Disorders. Cases Presentation.

Jecko Thachil MD (UK)

Management of bleeding disorders are usually straightforward when the deficient haemostatic factor is known. However, there can be challenging situations where the management is not straight-forward. Increasingly, patients with thrombocytopenia are diagnosed with thrombotic problems which can pose a real clinical dilemma. The diagnosis of acquired haemophilia is often missed due to the sublte presentation to non-specialists. There are also instances when blood tests may be normal but the patient has strong bleeding history. These scenarios will be discussed with illustrative cases.

(208)
Clinicopathologic Features of Castleman's disease: Experience at King Hussein Medical Center

Sura Alrawabdeh, Ibrahim Jraisat, Nabeeha Abbasi, Shadi Aldaoud, Sami Alhijazien

Objectives To study the clinicopathologic features of Castleman's disease (CD), to review the treatment challenges in a group of Jordanian patients at King Hussein Medical Center, and to compare that with international data.

Methodology This is a retrospective review of CD cases conducted at King Hussein Medical Center over 8 years (January 2009 to December 2016). A total of 21 cases of histopathologically diagnosed CD were enrolled in this study. Clinical data and histopathological parameters were analyzed and correlated among different subtypes of the disease with different outcomes and associations.

Results and Discussion There were 14 males and 7 females. The median age of presentation was 40.1 years. Common symptoms include lymphadenopathy 76%, anemia 35%, abdominal pain 30%, splenomegaly in 19% of cases. Lymphoma was diagnosed in 10% of cases. The disease was localized in 15 cases and multicentric in 6 cases. Univariate analysis showed that most of multicentric CD cases presented with complications compared to localized disease (p value of 0.0002). Of multicentric CD, 2 cases were positive for Human Herpes Virus-8 (HHV-8). The results of Human Immunodeficiency Virus (HIV) were available in 15 patients, and no case was positive. Hyaline vascular morphology was the commonest histopathological pattern observed in 67%, followed by plasma cell 19%, and mixed type in 5%. For all patients with localized disease, hyaline vascular was the only pathologic variant, whereas 4 out of 6 (66.6%) multicentric CD were of plasma cell type. Treatment of unicentric CD consisted of surgical resection, whereas for multicentric it was medical and 19 patients were followed up. Of these, 93.3% of unicentric disease remain symptom free without recurrence, while 2 cases of multicentric CD died, and the 3 others attained partial remission.

Conclusion Unicentric and multicentric CD are different clinical entities with overlapping histologic features. Most of the cases of Jordanian patients with CD exhibit an indolent clinical course with local surgical therapy. Further studies are needed to further elucidate the epidemiology, pathogenesis, clinical behavior, and optimal therapeutic regimens of this rare disease.

(209)
Cortical and subcortical morphometric and iron changes in relapsing-remitting multiple sclerosis and their association with white matter T2 lesion load: A 3-Tesla magnetic resonance imaging study

Ali Al-Radaideh (Jordan)
Imad Athamneh; Hadeel Alabadi; Majed Hbahbih

Introduction: This study was carried out to investigate the global and regional morphometric and iron changes in grey matter (GM) of multiple sclerosis (MS) patients and link them to the white matter (WM) lesions in a multi-modal magnetic resonance imaging approach. Materials and methods: Thirty relapsing-remitting MS (RRMS) patients along with 30 age-matched healthy controls (HC) were scanned on a 3T Siemens Trio system. The scanning protocol included a 3D, high resolution T1, T2, and T2*-w sequences. T1-w images were used in FreeSurfer for cortical reconstruction and volumetric segmentation, while T2-w images were used to extract the WM T2 lesions. However, iron and magnetic susceptbility were calculated from the phase data of the T2*-w sequence. Surface-based analyses were performed in FreeSurfer to investigate the regional cortical morphometric changes and their correlations with the Expanded Disability Status Scale (EDSS), WM T2 lesions load, cortical iron deposition and magnetic susceptibility. Results: Significant differences were detected between the RRMS patients and HC for all cortical and subcortical morphometric changes. EDSS and T2 lesion load showed weak to moderate correlation with the reduced cortical morphometric measures, increased cortical magnetic susceptibility and iron concentration. All dGM volumes showed a significant strong positive correlation with the cortical surface area and volume in RRMS patients and HC. Conclusions: GM is very much involved in the RRMS and cortical morphometric changes occur in a nonuniform pattern and are very likely to be associated with cortical iron deposition and magnetic susceptibility, dGM atrophy, WM T2 lesion load, and disability. Keywords: Relapsing-Remitting Multiple Sclerosis, Cortical Grey Matter, Magnetic Susceptibility Mapping, Iron, Lesion Load.

(210)
Optically Stimulated Luminescence (Osl) Is The Mean Of Measuring The Stuff Radiation Exposue In (King Husain Medical Center)

Alaa Rashid Ali AbdAlrahim, Alzahraa Hatem Salem, Khaleda Mohammad Yaseen, Fatima abdalkareemalerma, tahanimostafaayed.

Objectives: It is our top priority in King Husain Medical Center to protect patient and stuff from unnecessary radiation - wile always pursuing premium image quality in diagnostics and thus optimal patient outcome. That's why it important to use radiation dosimeters which is the measurement of accumulated radiation dose to stuff. We have legal licence from Energy and minerals regulatory commission (EMRC) in Jordan. There orientation was to use these radiation dosimeters.

Methodology: Radiation dosimeters that we use in our center: TLD (Thermo-luminescence detectors)(not used any more in our center) It's a mean of measuring the accumulated radiation dose, it consist of crystal (e,g CaSO4) which gives of light when heated this light is proportional to the degree of exposure seen by the TLD. OSL(Optically Stimulated Luminescence) Is the most advanced technology for measuring radiation exposure, OSL dosimeter uses Aluminum Oxide (AL203:C) crystal detectors The (AL203:C) is stimulated by green light from light emitting diode source ,then the(AL203:C) emits blue light which is proportional to the radiation exposure of the material.

Results and Discussion: Benefits of OSL over TLD: Fast issuance of dose reports OSL dosimeters are measured for only 12-15 seconds per badge; as a result, your dose reports will be available in less than 14 working days after we have reserved your badge. Credibility and Reliability of results Our calibration equipment is traceable to the national institute of standards and technology

(NIST) located at Maryland in USA. and the IAEA/ WHO primary standard dosimitry laboratory (PSDL) network. Data archiving Dose assessments are automatically saved to multiple devices to insure that your results are available any time when we need.

Conclusion: Since OSL is the most advanced technology in radiation monitoring .it offers several advantages such as fast dose assessment, dosimeter archiving, non-distractive readouts, high degree of environmental stability and much more we recommend other centers to use it.

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New Protocol for Aorto-Femoral CT Angio using low contrast media with the advent of faster scanners At King Hussain Medical Center?

Alzahraa Hatem, Khaleda Mohammad, Nada Abdel Majid Ebbini, Abdullah Al-Omari, Wala Ttaisser Abu Radwan.

Objectives: To establish low-contrast-dose protocol for imaging of lower extremity arteries adjusting scan parameters without affecting image quality. This is particularly important in diabetics, elderlies and patients with renal impairment.

Methodology Methods and Materials: 81 patients were examined, using Test Injection Bolus Tracking (TIBT). Two test injections were done, 1st TIBT at the start position, and the 2nd at the popliteal artery using 5cc & 8cc of CM consequently. Post injection delay was Time to Peak (TTP) calculated from 1st TIBT plus 4 seconds (Delay= TTP1 +4). Scan time from the position of 1st TIBT to the position of 2nd TIBT = TTP2 - TTP1. After the scan length was adjusted to cover the area of interest (Feet) and 2sec were added to the scan time since the flow distally is slower.

Results and Discussion: 72% of the patients scanned using 40ml of CM, 24% by 50ml & 4% by using 60ml where there was a difference in TTP between RT & LT popliteal arteries. Average CT densities were 529, 430, 379 and 224HU at aorta, iliac, popliteal and PTA levels CT densities were 529, 430, 379 and 224HU at aorta, iliac, popliteal and PTA level respectively. 92.5% of cases had density values more than 200HU at popliteal level and 97.5% were more than 115HU at level of PTA. All studies revealed satisfactory enhancement at all scan levels.

Conclusion: Volume of contrast media needed to do angiography studies can be lowered with the advent of faster CT machine.

(212)

Establishment of diagnostic reference levels in cardiac computed tomography scan in Jordan: a need for patient dose optimisation

Mohammad A Rawashdeh PhD (Jordan)

Many factors influence the level of radiation doses delivered to patients undergoing cardiac computed tomography (CT) procedures. These can be responsible for large dose variations within and between hospitals for standard sized patients undergoing the same examination. The objective of this study was to propose national diagnostic reference levels (NDRLs) for cardiac CT. A retrospective survey was made for 228 cardiac CT scans within seven Jordanian hospitals specialised in cardiac CT imaging. NDRLs for cardiac CT were defined as the 75th and 25th of volumetric CT dose index (CTDIvol) and dose length product (DLP). CTDIvol and DLP were provided for approximately 30 successive cardiac CT in each centre except for one centre (18 scans). The results revealed that the 75th DLP for prospective gating mode and retrospective gating mode were 692.95 mGy.cm and 1146.60 mGy.cm, respectively. The current work shows wide dose variations across the hospitals surveyed for cardiac CT scans; the highest mean was a 5.1-fold difference in median DLP between centres (223.2–1146.7 mGy cm). These differences were associated with variations in the mAs and kVp. In conclusion, this study confirmed the large variability in CTDIvol and DLP in cardiac CT scan, related to acquisition protocols, and the need for dose optimisation. The reasons for this variation in radiation dose shown in the current work is some medical imaging centers are not fully aware of the concept of DRLs. Moreover, there is still a large optimization potential of cardiac CT examinations for adults in Jordan.

(213)
A new protocol for pulmonary CT angiography using the lowest amount of Iodinated contrast

Khaleda Mohammad, Rana Ahmad (DR) Alzahraa Hatem(RT), Fatima Hamzah (RN), Afaf abdalaziz (RN)

Objectives: To demonstrate the lowest possible volume of iodinated contrast media needed to yield an interpretable pulmonary CT angiography.

Methodology: Relying on the fact that pulmonary circulation harbors 10% of total circulating blood, the lowest possible amount of contrast needed to achieve satisfactory enhancement within pulmonary arteries was estimated using a 500mL normal saline phantom using iodinated contrast of 370mg/mL concentration. This was later applied in daily practice on patients undergoing pulmonary CTA for different indications by gradually lowering the amount of contrast from the standard protocol used, side by side with modification of scan parameters. The new protocol was applied on 52 patients. This was done after having a bolus test using 6mL of iodinated contrast at a flow rate of 5mL/s followed by a flush of 25mL of normal saline at the same flow rate.

Results and Discussion: Satisfactory volume of contrast estimated in the phantom was 15ml. The amount of contrast used in our patients ranged from 15 to 25mL. Enhancement values average within pulmonary trunk was HU 366; within the left main pulmonary arteries were HU 378; within A1 segmental arteries of lower lobes were HU 423 and those within the A1 segmental branches of upper lobes were HU 461. In regards to the subjective assessment of images, 98% of images was found to be of high diagnostic value.
Conclusion: The previously used high volume iodinated contrast media protocol for evaluating pulmonary arteries can be substituted with a low volume protocol without affecting the image quality.

(214)
Coronary CTA vs. Coronary Catheterization

Zeiad mohammad Semrin,Sermeenalnajar (RT), Mohamad Okashah(RT), Dr. Abdullah AlOmari (MD) & Areej Bassam(RT)

Objectives: Coronary CTA is superior to coronary catheterization for evaluation of arteries anomalies Methodology: This study was performed at KHMC with CT scan Siemens Definition in cooperation with Cath-Lab of QACI. This study had sample of 20 patients made coronary catheterization and coronary CTA for coronary arteries anomalies at origin. The main data for this study depends on: • Date of examinations (catheterization, CTA) for each patient. • The completion of catheterization procedures and number of runs used

Results and Discussion: The study showed that about 70% of the sample made Coronary catheterization before Coronary CTA, which means that Coronary catheterization was not sufficient to make good diagnosis for this kind of pathology. Also the study showed that less than 40% didn't complete the Coronary catheterization procedure which means that it was not able to produce informative views for sufficient diagnosis. 10 % of the sample made surgery without making Coronary Cath

Conclusion: Coronary CTA procedures is superior to diagnose coronary arteries anomalies at origin than Coronary catheterization. A 3D dynamic view which can be produced by Coronary CTA will give a good evaluation about any compression on the vessels at their origin or along their course

(215)
Hearing threshold levels obtained by evoked auditory brain stem and pure tone audiometry in normal hearing adults.

Hussain yousef alaqassem. Ph. Daudiological scientist (Jordan)

To compare hearing threshold levels obtained by evoked auditory brainstem using tone burst, click, bone conduction ABR and hearing threshold levels obtained by audimetery in order to establish normative data for evoked auditory brainstem device.

(216)
Keratoconus

Dana Alwaked (Optometri), Nisreen abuzeid, Aya almasaeed, Alaa Hazaymeh, Ayat Alwadi

Objectives Keratoconus; which is an eye disorder that leads to vision distortion caused by thinning of the cornea, thus worsen by number of factors including geographical distribution that is globally distinguished as an affecting factor Our aim in this study is to specify areas through governorates of Jordan with high rate of Keratoconus.

Methodology 1614 Keratoconus patients who attended the K.H.M.C in therapeutic contact lenses clinic of a known governoratesof residency in Jordan during the period from (2010-2017), both males and females patients were included, and their age group ranged between (14-60) years old .Keratoconus severity ranged from mild to advanced stages, and some patients underwent corneal surgery. All patients were successfully fitted with different types of therapeutic contact lenses that improved their vision massively.

Results and Discussion 1614 Keratoconus patients who attended the K.H.M.C in therapeutic contact lenses clinic of a known governoratesof residency in Jordan during the period from (2010-2017), both males and females patients were included, and their age group ranged between (14-60) years old .Keratoconus severity ranged from mild to advanced stages, and some patients underwent corneal surgery. All patients were successfully fitted with different types of therapeutic contact lenses that improved their vision massively.

Conclusion Jarash, Ajloun, Madaba, Irbid and Alslat with higher prevalence and incidence of Keratoconus compared to others in Jordan because of the agricultural nature in these areas and closed communities thus relatives marriage where inheritance factor takes place. While AL-Mafraq, AL-Tafeela, AL-Karak and Maan recorded moderate prevalence and incidence of keratcouns because of its dry nature, The lowest number of Keratoconus found in Aqaba, Amman and Zarqa for the presence of mixed communities from all parts of Jordan. There are specific Areas with higher prevalence and incidence of Keratoconus compared to others in Jordan. These governorates must be enriched with more healthcare services, for earlier screening and detection which leads to sooner management and successful treatment.

(217)
Calcium Supplementation and CVD Risk Controversies

Hassan Vatanparast MD (Canada)

Epidemiologic studies report that many older adults do not meet the recommended amount of dietary calcium intake. However, some recent studies on the potential adverse impact of calcium on cardiovascular disease (CVD), has caused anxieties among older adults. It has also created uncertainty among healthcare professionals on the safety of calcium supplementation for bone health in older adults. Critical review by experts in the field (independent or supported by scientific associations and pertinent organizations, including our systematic review) reveals no reliable association between calcium intake from food or supplement and risk of cardiovascular events. Many research gaps exist to address the hypothesized association such as the amount and source of calcium (food vs. supplement), acute or chronic high calcium intake, the role of vitamin D and other factors and presence of CVD. No randomized controlled trial exists to evaluate and address the questions on the risk of CVD by calcium supplementation as a pre-specified primary endpoint. With the current level of evidence, the Institute of Medicine evidence-based recommendations on calcium intake from food and supplement including calcium intake of 1200 mg/d for women aged over 50 y, 1000 mg/d for men aged 51-70 y and 1200 mg/d for men over 70 y along with recommended amount of vitamin D assures meeting the requirements for bone health. The highlights of existing literature examining the impact of calcium supplementation on CVD risk is provided in this talk.

(218)
Prevalence and Associated Factors of Metabolic Syndrome among Type-2 Diabetic Patients

Ala'a Basheer Al-Refai ,Ahmad Mousa Younis, Ruba Saleh Jaradat, Shatha Faiez Al-Taweel, Ayman Sulyman Al-Issa

Objectives To assess the prevalence of metabolic syndrome and its individual components among patients with type 2 diabetes and to determine the potential associated risk factors

Methodology A cross sectional study was conducted at the National Center for Diabetes Endocrinology and Genetics (NCDEG) in Amman-Jordan. A total of 1017 type 2 diabetic patients (50.8% males and 49.2% females), aged 22-90 years with a mean age (SD) of 58.2 (10.5) years were included in this study. The National Cholesterol Education Program-Adult Treatment Panel III (ATP III) diagnostic criteria were used to define metabolic syndrome

Results and Discussion The prevalence of metabolic syndrome among the study population was 79.1% ATP III diagnostic criteria, with higher prevalence rate in females than males. The most common abnormality in the overall study population was high blood pressure. The commonest metabolic abnormality in females was abnormal waist circumference and in males was high blood pressure. Multiple logistic regression analysis indicated that increasing age, female sex, being not adherent to diet regimen, presence of family history of cardiovascular diseases, family income of >1000 JD, duration of diabetes ?10 years, overweight, obesity and current smoking were all positively associated with metabolic syndrome

Conclusion The prevalence of metabolic syndrome in type 2 diabetes is high in both gender and increases with age. The modifiable risk factors for the metabolic syndrome should be a focus point in the management of subjects with type 2 diabetes

(219)
Cholesterol and low -density lipoprotein in coronary heart disease

Firas Y. Okkeh, Belala.Aburbeqa, Ayaa. Rashaidh, Abdelrahman A.Khresat,. Mohammed K. Alzyoud.

Objectives The purpose of this study is to measure serum cholesterol and low –density lipoprotein cholesterol (LDL_C) levels in increased risk of coronary heart disease patients in the internal medicine clinic at King Hussein medical center in Specialty Clinics laboratory, that transferred from Queen Alia Heart Center.

Methodology A total of 588 subjects were studied at king Hussein medical center, located in Amman, Jordan between(July2017 and Feb.2018),their age ranged between(30-70years) 328(56.2%)of them were coronary heart disease ,patients were converted from Queen Alia Heart Institute by doctor recommendation, to the internal medical clinic in al Hussein medical center ,before a heart catheterization. And 260(43.8%) healthy control group with no past history of illness was selected from house staff. The enzymatic method was used analysis using Cobas 501 Auto Analyzer to measure levels of serum (CH, TG, HDL-C, LDL-C).

Results and Discussion In control group 16.8% had Cholesterol < 200mg/dl. 26% had LDL-C ? 150mg/dl, while (53%) of the patients had Cholesterol ?200mg/dl, and (69%) had LDL-C was higher in patients than that in control group.
ConclusionThe present analysis in this observational study, the total cholesterol and LDL-Cholesterol maybe identify people at risk for Coronary Heart Disease.

(220)
Vitamin D and Autoimmunity, The Case of Juvenile Idiopathic Arthritis

Hassan Vatanparast MD (Canada)

Recently the roles of vitamin D in metabolism and signaling for both innate immune and adaptive immune response have been reported. Link between other autoimmune disease and lower levels of vitamin D established. Studies indicate suboptimal vitamin D status in children with Juvenile Idiopathic Arthritis (JIA). However, less it is known about the association between vitamin D and as one of the most common chronic childhood diseases.
We used data from the Biologically-based Outcome Predictors (BBOP) in JIA a prospective longitudinal multicentre study in Canada to evaluate the potential association between vitamin D and disease activities considering probable environmental and genetic factors. In this lecture, I will provide an overview of the existing literature, including data from our own research, about the association between vitamin D and JIA. Also, I will discuss the gaps in research and potential mechanistic pathways that explain such association.

(221)
Voice Restoration Alternatives Post Total Laryngectomy.

Assistant Professor Zaidan Alkhamaiseh, SLP, Consultant, (Jordan)
Lieutenant. Sameer Aljarrah, SLP Specialist, RMS

Introduction:Laryngectomy is the removal of the larynx and separation of the airway from the mouth, nose and esophagus. In a total laryngectomy, the entire larynx is removed (including the vocal folds, hyoid bone, epiglottis, thyroid and cricoid cartilage and a few tracheal cartilage rings). In a partial laryngectomy, only a portion of the larynx is removed. Following the procedure, the person breathes through an opening in the neck known as a stoma. This procedure is usually performed by ENT surgeon in cases of laryngeal cancer.

Objective: The aim of the study was to review the different options for voice rehabilitation maneuvers to improve the quality of life (Voice Communication) of laryngectomized patients after total laryngectomy.

Data source: Data for the study were collected from the medical records of larynegctomized patients who were rehabilitated in speech clinic at king Hussein Medical center along 12 years ago (2005-2017).

Study sample: The study sample consists of all patients who were rehabilitated in speech clinic at King Hussein Medical Center , the total number of the study sample was 92 individuals 87 male and 5 females age range 43-88 years with average age 62 years.

Results: 88 patients were preferably using Tracheo esophageal Prosthesis (TEP), 3 patients interested using electronic larynx, and one patient use esophageal voice.

Conclusion: Voice rehabilitation is one of the most important determinants of the quality of life after total laryngectomy, The most common form of voice rehabilitation is the tracheoesophageal puncture is a technique frequently promoted by clinicians as a superior method, a relatively small subset of patients are successfully rehabilitated long-term.

Keywords: laryngeal cancer, laryngectomy, pharyngoesophageal segment, tracheoesophageal voice, voice restoration.

(222)
Assessment of Anthropometric Measurements, Fat Intake, And The Inflammatory Markers In Jordanian Women With Preeclampsia

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Objectives: To evaluate the association between dietary fat intake and risk of preeclampsia in pregnant women and to measure CRP in preeclamptic women to assess inflammation.

Methodology: Case-control study of 89 Jordanian pregnant women (36 preeclamptic women as cases and 43 healthy pregnant as controls). Participants gestational age ? 20th week of pregnancy, age between 18-45 yrs, previously normotensive and nonprotienuric were included in the study. Participants were recruited from obstetrics and gynecology clinics at Royal Medical Services/King Husssein Medical Center. Information concerning socio-demographic, anthropometric measurements, biochemical measurements, nutritional information and dietary habits were collected using a questionnaire. Three 24 hours dietary records were also collected. Laboratory measurements including protein in urea, and CRP level were performed for each participant.

Results and Discussion: Pre-pregnancy body mass index, age, and multiple pregnancies were significantly different between cases and controls (P?0.05), According to the ORs and corresponding 95% CI, strong association for intake of fat (OR = 6.40, 95% CI: 1.85–22.17, P-trend = 0.006), and saturated fat (OR = 3.35, 95% CI: 1.0-11.54, P-trend = 0.034). On the other hand, olive oil intake (OR = 0.20, 95% CI: 0.05–0.78, P-trend = 0.005), was found to be protective against developing PE. C-RP (OR = 24.39, 95% CI: 3.57–166.9, p-trend = 0.001), family history (OR = 3.87, 95% CI: 1.2–12.32, p-trend = 0.006), was significantly associated with PE development.

Conclusion: Preeclampsia is associated with maternal CRP ? 10 mg/dl, family history of preeclampsia, high fat, and high saturated fat intake among Jordanian pregnant women. On the other hand, high intake of olive oil was found to be protective against developing preeclampsia. Recommendation: Future management of pregnancy, particularly for those who had positive family history of PE, and high BMI, should encouraged to follow balanced and adequate healthful diet, with increase intake of olive oil, on the other hand, assess inflammation for women who carry additional risk factors for having preeclampsia.

(223)
Association between vitamin D deficiency and hypothyroidism

Sana'a .M.Al-Momani, TasneemGhalebAL_ Omoush (MLT) Safaa Mohamad Zaal Alzuod(MLT) Ahmad AtefShdyfat (MLT) Hana Khlifa AL - Tamimi (MLT).

Objectives: Vitamin D is a group of fat-soluble secosteroids , the main function of vitamin D is increasing intestinal absorption of minerals like calcium, magnesium, and phosphate, and has also variant other biological functions. Vitamin D deficiency is a global health problem. Over a billion people worldwide are vitamin D deficient or insufficient. The main aim of the current study was to examine the relationship between hypothyroidism and vitamin D in Jordanian population sample.

Methodology: Two hundred Samples were collected of adult patients suffering from low vitamin D (male- female) aged eighteen to seventy years , and the study was conducted from2017 to2018 in prince Hashim bin al Hussein military hospital laboratory, our investigations in the lab were carried out for tetra Iodothyronine (T4) and thyroid stimulation hormone (TSH) by Cobas e411, while result of vitamin D3 , thyroid peroxidase antibody (TPO) and anti-thyroid antibodies (ATA) were measured in princess Iman center .
Results and Discussion: After storing the samples they show that more patients with Vitamin D3 Deficiency are old age over 60 years.45patients have Vitamin D3 Deficiency accompanied by hypothyroid were equivalents of 22 percent, while 60 patients were suffering from Vitamin D3 Deficiency in the lower limit range thyroid hormone result were equivalents of 30 percent, and 95 patient have Vitamin D3 deficiency and normal thyroid hormone result equivalents of 48 percent.33 patients from 45 patients suffering hypothyroid and low vitamin D3 have high levels of TPO and ATA equivalent of 73 percent.
Conclusion: Results from our study stated that patients with hypothyroidism had vitamin D deficiency. That encourages the screening for Vitamin D deficiency and supplementation recommends for all hypothyroid patients.

(224)
WT1 and P53 in the context of Hematological malignancies

Mohammad A. Bani-Ahmad MD (Jordan)

Wilms tumor (WT1) and p53 proteins were identified in the pathogenesis of several malignancies, including hematological malignancies. WT1 protein is a zinc finger DNA-binding protein that was first defined through the positional cloning and sequencing in patients with nephroblastoma (Wilms tumor). WT1 has been defined as a transcription regulator of several genes that are involved in cellular proliferation and differentiation. However, the function of WT1, as a transcriptional activator or suppressor, is a cellular and chromosomal context specific and requires the interaction of four WT1 isoforms with conserved structure and cellular levels. The expression of WT1, in the context of several hematological malignancies and solid tumor, has been investigated. It has been shown that WT1 expression is markedly induced in most leukemia cells. WT1 mRNA overexpression in leukemia is evident with oncogenic properties and the quantitative detection of WT1 transcripts could be helpful in monitoring and following up minimal residual disease. It also acts as a useful predictor of leukemia-free survival rate following to a treatment regimen. WT1 has been shown to physically interact with p53, a tumor suppressor gene that has several biological functions such as the regulation of cell cycle arrest, apoptosis, and angiogenesis. p53 mutations have been shown to provide a favorable environment for the propagation of other genetic mutations and subsequent development of tumors. p53 has been reported to interact with the first two zinc-finger domains of WT1 in a manner that modulates their

transcription regulatory functions of respective target genes. Furthermore, the expression of WT1, along with the expression of wild-type p53, is not only associated with an increased stability of p53 but also inhibited pro-apoptotic properties that ultimately result in cellular tolerance to p53-mediated apoptosis.
environmental and genetic factors.In this lecture, I will provide an overview of the existing literature, including data from our own research, about the association between vitamin D and JIA. Also, I will discuss the gaps in research and potential mechanistic pathways that explain such association.

(225)
Influence of Coproporphyrinogen Oxidase 4 Polymorphism on Urinary Biomarkers of Dental Mercury Exposure in Patients with Amalgam Fillings

Saad Alfawaeir (PhD)

Background: Dental amalgam filling contains 50% Hg in its gradients and has been accepted as a part of dental treatment for more than 170 years ago, the side effects of dental amalgam is still controversial subject and in many European countries it was prohibited or restricted. Aim

Objectives: In this study we aimed to study the effects of coproporphyrinogen oxidase 4 (CPOX-4) polymorphism on dental mercury exposure urinary biomarkers in patients with amalgam fillings.

Methodology The study group consisted of 102 patients have amalgam fillings from different periods of time and 32 healthy subjects as control group. Urine and blood samples were collected from these subjects. Mercury levels in urine were measured using Inductively Coupled Plasma Mass Spectrometry (ICP-MS), urinary total porphyrins levels were measured by High Performance Liquid (HPLC), for genomic assays the following methods were used, DNA extraction, real time-PCR and Amplification Refractory Mutation System (ARMS).

Results and Discussion The total urinary porphyrins concentrations in patients group were statistically significant higher than in control group (60.2 ±41.8 nmol/L and 41.2 ±19.5 nmol/L respectively) ($p<0.001$). After adjusting to creatinine total urinary porphyrins concentrations in patients group were significantly higher than that in control group (5.6± 3.20 vs. 3.7±0.18 nmol/mmol creatinine). The concentrations of urinary Hg was statistically significant higher in patients group (6.4 ± 3.8 µg/L) than in healthy group (2.5± 1.2µg/L) ($p<0.001$). The frequencies in patients group of the homozygous common allele (A/A), heterozygote genotype (A/C) and homozygous genotype (C/C) were 85%, 13% and 2% respectively. Where in healthy groups the frequencies were 97%, 3% and 0 %. In all subjects (n=134) the frequencies were 88%, 10% and 2 %.

Conclusion Collective results states that (CPOX-4) polymorphism affects urinary biomarkers of dental mercury exposures in patients with amalgam fillings showing a significant increase in urinary mercury levels and urinary porphyrins concentration in patients with homozygous genotype of (CPOX-4).

(226)
An evaluation of the anti-proliferative and pro-apoptotic properties of Nigella Sativa

Rima Nserat,Pathology Department at Princess Iman Research and Laboratory Sciences Center. KHMC, Jordan, Lisa Lee. Jones, School of Healthcare Science, Manchester Metropolitan University, Manchester, UK.

Objectives The aim of this study was to evaluate the anti-cancer properties of Nigella sativa oil on the Jurkat E6.1 cell line.

Methodology Investigation of the anti-cancer properties of Nigella sativa oil in the human T lymphoblastic Jurkat E6.1 cells was undertaken evaluating 4 different concentrations (undiluted, diluted 1:10,1:50 and 1:100) at three time points(24, 48 and 72 hours). Cell viability was assessed using the vital dye, trypan blue. Apoptosis was detected using the Human Annexin V assay by flow cytometry. Wilcoxon Signed–Rank test was used for statistical analysis. A p-value ? 0.05 was considered statistically significant.

Results and Discussion: Cells treated with undiluted oil could not be assessed by trypan blue due to the hydrophobicity of oil and bubble formation when mixed with culture media. The

1:10 dilution had the highest percentage of non-viable cells with 92.78% followed by 90.53% and 67.62% for the 1:50 and 1:100 dilutions, respectively, after 72 hours. Cells treated with undiluted oil had 58.18% apoptotic cells followed by 44.3%, 33.89% and 26.81% for the 1:10, 1:50 and 1:100 dilutions respectively. Results were considered statistically significant except for 1:10 dilution at 24 hours and 1:50 at 72 hours.

Conclusion Nigella sativa seed oil induced apoptosis and inhibited cell proliferation in Jurkat E6.1 cells in vitro in a time and dose-dependent manner. Further research is required to verify that Nigella sativa is a promising and potential drug for treating T cell leukaemia or any other leukaemia types, lymphomas or carcinomas.

Keywords Nigella sativa, Jurkat E6.1,leukaemia, apoptosis, flow cytometry.

(227)
Traditional Medical use of Mylabris calida (Pallas,1782) in Jordan (Coleoptera: Meloidae)

Renad M. Al Zou'bi (lab technetion), Alaa R-R Al Rekabat

Objectives In this communication, we report traditional use of Mylabris calida for treating warts in Jordan.

Methodology For treating warts or moles, beetles are collected during spring. Upon use, a single beetle is irritated by means of a small spine, and when the yellow secretions are discharged from the beetle, the spine is dipped into the section and applied topically on the warts. These beetles secrete a yellow-golden fluid from their leg joints. The beetle has no defined common name, and usually collected from wheat fields.
Results and Discussion Cantharidin has long been used in traditional and folk medicine over centuries, while its application in dermatology was known since the early 1950's (Moed et al., 2001). Several reports indicated that if ingested, it can lead to death or other complications (Polettini et al., 1992; Tagwireyi et al., 2000). The effect of cantharidin on the cellular matrix was studied. When applied to the skin, it causes release or activation of neutral serine proteases that result in the detachment of the tonofilaments from desmosomes between cells causing detachment, leading to acantholysis and intra-epidermal blistering. Cantharidin solution (0.7%) was used to treat facial flat warts, where as all patients were clinically cured within 16 weeks with mild adverse effects. On the other hand, cantharidin was successfully and safely used in treatment of molluscum contagiosum, however, it was not recommended for treatment of common warts, since the noninflammatory blisters may cause "ring warts" that will lead to the spread of warts. The use of meloid beetles for warts treatment in Jordan was not reported. We are unaware of such practice among the Jordanian population. Even in the village of Faqoo'a, the use of this beetle for wart's treatment is limited some families. Mylabris calida is considered as the most abundant species of meloid beetles in Jordan. It appears from March to October and could be found among wild grasses or wheat. Its distribution extends from Yarmouk River plains to the south reaching Karak and as far as Jawa in the eastern desert.

Conclusion Use of cantharidin or Mylabris calida for treatment should be conducted under the supervision of a physician. Complications may occur such as severe blistering, accidental ingestion that could be fatal and damage to the sclera if used near the eyes. It is not recommended to use cantharidin when patients have diabetes, peripheral arterial or other circulatory diseases. It should not applied on moles, genital area, birthmarks, and unusual warts with hair growing from them, warts on the mucous membranes and open wounds.

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Anemia Among Pregnant Women: literature review

Malik Mohammad Al-batikhi MLT, Taima Hani Al-omoush MLT, Sanaa Radwan Al-jbour MLT, Rasha Hamad Al-jbour MLT, Waleed Talal Malkawi RN.

Background: Pregnant women are more likely than non-pregnant women to have anemia.

Anemia is a condition in which you don't have enough healthy red blood cells to carry adequate oxygen to the body's tissues. Having anemia may make you feel tired and weak. There are many forms of anemia, each with its own cause. Anemia can be temporary or long term, and it can range from mild to severe. Anemia is common phenomena among pregnant women. Mild anemia may make you feel exhausted, but it can become serious if it becomes too severe or is left untreated. In fact, anemia during pregnancy can lead to premature birth and low birth weight for your baby, and even maternal mortality. The most common true anemias during pregnancy are iron deficiency anemia and folate deficiency megaloblastic anemia, which are more common in women who have inadequate diets and who are not receiving prenatal iron and folate supplements.

Purpose: The purpose of this study is to assess the status of anemia among pregnant women and to study the prevalence of iron deficiency anemia in pregnant women.

Method: A systemic review of MEDLINE, PubMed, and Google scholar (January 2010-january 2017) was performed using the terms anemia, pregnant diet, iron deficiency, and pregnant supplements. The criteria for inclusion in the review were qualitative and quantitative research design.

Results: literature search identified fourteen studies which demonstrated that, anemia common among young pregnant women (20-35 years). Moderate degree of iron deficiency anemia is most common. Significant association has been found between degree of anemia and age and educational level. Anemia signs and symptoms vary depending on the cause of your anemia. They may include: fatigue, weakness, short of breath, dizziness, cold hands and feet, and headache.

Conclusions: Any intervention strategy for anemia must address not only the problem of iron deficiency for pregnant women, but also deficiencies of other micronutrients, such as B12 and folic acid and other possible causal factors.

Recommendation: At first anemia can be so mild that it goes unnoticed. But symptoms worsen as anemia worsens. Having a diet that is consistently low in iron, vitamin B-12 and folate increases your risk of anemia. Treatments for anemia range from taking supplements to undergoing medical procedures. You may be able to prevent some types of anemia by eating a healthy, varied diet. Interventions to enhance the intake of diet rich in iron and the intake of iron supplements for all pregnant women.

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The Influence of Cigarette Smoking in Serum liver Enzymes

Ibrahim ALYousef, Mousa Al-Hesa, Ayat Al-Oran, Mohammad Al-Jobor, Yazan Khresat

Objectives: Cigarette smoking is the largest preventable risk factor for morbidity and mortality in many countries. Remarkable increasing in the prevalence of cigarette smoking in Jordan in the recent years has been noted. The main aim of this study was to evaluate any possible association between the cigarette smoking and liver enzymes in Jordanian male population sample.

Methodology: This study was carried out on 200 male patients (mean age 49.5 ±14.2). The control group includes 50 (mean age 52.8 ±11.2), all patients were attending the out patients clinic at in King Hussein Medical Centre (KHMC) in Amman - Jordan .Serum ?- Glutamyl Transferase (?-GT), Aspartate aminotransferase (AST) ,Alanine aminotransferase (ALT) and Total Bilirubin ?-GT, ALT, AST and Total bilirubin were measured using Cobas 501 auto-analyzer (Roche Diagnostics GmbH, Mannheim, Germany) in clinical chemistry depatrment.

Results and Discussion: The present study consists of 200 male patients (mean age 49.5 ±14.2). The control group includes 50 (mean age 52.8 ±11.2), there was a statistical significant increase ($P < 0.05$) in HB (16.21 + 0.29) and HCT (51.34 + 1.3) of smokers in concomitant with the non- smokers (14.35 + 0.48) and (42.71 +1.82), respectively. In liver enzymes analysis serum ?-GT, ALT, AST and total bilirubin concentrations were significantly rose in male smokers in comparison with those non smokers ($P < 0.05$).

Conclusion: The findings of this study show that cigarette smoking has effect on liver function which is reflected on the liver enzyme secretion level in blood serum.

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The Electrical Current and the Time in Biphasic Truncated and Damped Sinusoidal Defibrillator Wave Forms at The Same Energy

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Objectives The aim of this study is to clarify and classify the time and the electrical current delivered to the patient according to different types of impedances. Thus the waveform parameters adjusted as a function of patient impedance.

Methodology This study conducted on two types of defibrillators with a different wave forms the first one was damped sinusoidal and the second one was biphasic truncated. These types will have the same energy level and the same impedance to know what happened to the electrical current and the time.

Results and Discussion In the first type of defibrillator the energy selected was 150 joules, the waveform was damped sinusoidal. By applying this energy to 25?, 50? and 100? impedances we will obtain the electrical current s 41A, 27A and 19A.we obtain the time 6.9ms, 9.2ms and 19.6 ms respectively In biphasic the energy selected was the same (150 joules), the waveform was Biphasic Truncated Exponential. By applying this energy to 25?, 50? and 100? impedances we will obtain the electrical current s 37A, 22A and 16A.we obtain the time 3ms, 4.1ms and 9 ms respectively. The results showed that the time and electrical current in biphasic truncated waveform is less than it in the damped sinusoidal wave form for the same energy and the same impedance.

Conclusion Less time and electrical current during the energy delivered to the patients means less risk to them. So the biphasic truncated wave form has less harmful than the damped sinusoidal wave form which means that it is more efficient and achieves its purposes.

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The effect of low quality consumables on Infusion and Syringe pumps

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Objectives: The objective of this study is identifying the effect of low quality consumables on (Infusion and Syringe) pumps.

Methodology: This study was conducted at Queen Alia Heart Institute, in the period from (1-1-2017) to (31-3-2018) on two equipments infusion pump model (Infusomat space P) quantity 50 pumps and syringe pump model (Prefusor space) quantity 35 pumps, which they are still under guaranty. Fifty seven maintenance request forms (MRF) were collected and classified according to its failure cause, then identifying the failures due to the consumables used, leakage from bad quality dripping sets cause power and control boards malfunction.

Results and Discussion: From 57 MRF there are: (14 pumps malfunction in power and control boards, due to liquid dripping inside the pumps, 15 syringe pumps need motor or plunger calibration or replace due to bad quality syringes, 19 pumps need charging the battery (low battery error), one pump the upper case was broken due to fall down and 8 pumps for different reasons).

Conclusion: The cost of the defected boards is more than 12000JD, this cost is equivalent to the price of seven new pumps and the local agent will not maintain the pumps because it is misuse fault. Using well known manufacturing consumables is better for the medical equipments such as infusion and syringe pumps.

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The Advance Prosthesis for Upper Limbs Amputees in Jordan Royal Medical Services

Ghazi Muhsen Alamrat, Consultant Orthotics & Prosthetics, Jordan

Objectives To evaluate the comparison functionally of Be Bionic Upper Limbs Prosthesis and Myoelectric Prosthesis.

Methodology The study was conducted in Royal Rehabilitation Center (Orthotics & Prosthetics department) at Royal Medical Services during the period of December 2013 – May 2017. A total number of 41 upper limb amputee: 40 (97.56 %) males and one female (2.44 %). 16 (39.02 %) with trans-radial amputation, 14 (34.15 %) with trans-humeral amputation, 10 (24.39 %) with wrist disarticulation and one (2.44 %) with bilateral wrist disarticulation participated in this study. 25 amputees (60.98 %) were fitted with Be Bionic prosthesis and 16 amputees (39.02 %) were fitted with Myoelectric prosthesis.

Results and Discussion 40 males with a mean age of 43.9 (21-69) and one female with age of (29) participated in this study. Participants who were fitted with Be Bionic prosthesis included 7 with trans-humeral amputation, 10 with trans-radial amputation, 7 with wrist disarticulation and one with bilateral wrist disarticulation. Functional results of participants with Be Bionic prosthesis were a grip pattern that suited every situation from power grip, which comfortably holds a glass or shakes someone's hand, to a computer mouse grip. Consequently, Be Bionic prosthesis offers a wide and unique variety of functions which increases reliable grips and hand positions to 92.86 %. Participants who were fitted with Myoelectric prosthesis included 7 with trans-humeral amputation, 6 with trans-radial amputation and 3 with wrist disarticulation. We found that only Thumb and Index fingers move but the other three fingers were cosmetically there without function, so it has one reliable grip and position which decreases grip and hand positions to 7.14 %.

Conclusion This study demonstrates that Be Bionic prosthesis can function like a human hand with 14 reliable grips and hand position. However, Myoelectric prosthesis has only one reliable grip and hand position. Therefore, Be Bionic prosthesis is superior in Myoelectric prosthesis functionally.

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Treatment of Congenital Idiopathic Club Foot Deformity Using Kinesio-Tape.

Ahlam H. Kraishan (Pt), Esra'a Y. Odeh Pt, Areej J. Abu Roman Pt, Wejdan Mohammed Obeidat Pt, Hana'a Mohammad Hamad Ot.

Objectives: Abstract Introduction: Clubfoot is one of the most common congenital orthopaedic anomalies. Clubfoot or congenital talipesequinovarus, is a congenital deformity of the foot. It consists of cavus, adduction, varus and equinus. This is due to medial displacement of navicular and calcaneus around the talus. Medial deviation of the head and neck of talus is due to force of calcaneus on talus. Taping is a commonly used intervention in the management of many clinical conditions. Treatment of club foot deformity consists of different approach. Objective: To investigate the therapeutic effect of Kinesio-tape in Treatment of Congenital Idiopathic Club Foot Deformity.

Methodology: Materials and Methods: During the period of Feb 2016 to Feb 2017; 4 male patient was referred to the physiotherapy department in Queen Rania Hospital diagnosed with congenital idiopathic club foot deformity .There age range 3-7 years old. They were assessed and treated by Kinesio-tape approach to correct the deformity gait analysis. Gait analysis using (pictures and videos were taken) to assess the results, active and passive R.O.M and balance were assist before and after application of using tape.

Results and Discussion: 3 patients (75%) have shown an improvement in both active and passive R.O.M 1 patient (25%) has improved only in passive R.O.M

Conclusion: The result of this study concludes that Kinesio-tape could have a temporary effect in the treatment of Congenital Idiopathic Club Foot Deformity.

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The Activity Level Examination for Below Knee Amputees Using Below Knee Prosthesis

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Objectives: The purpose of this study is to assess the activity level of below knee amputees with using K-level questionnaire to determine their activity improvement with using the below knee prosthesis.

Methodology: Forty five patients (40 males, 5 females, age range between30-67yeras old) from the Royal rehabilitation center participated in this study. The activity level was examined for each patient before fitting withprosthesis and after three month, we asked the patients to visit the center again for follow up and activity level examination for the second time.

Results and Discussion: Without the prosthesis, 47% of the amputees (21 patients) were on K-level 1 and 53% of amputees (24 patients) were on K-level 2. After fitting with the prosthesis and doing the activity levelexamination again, the activity level for most of the patients has increasedbut with different level. From the first group with K-level 1, 19 patients of them reached K-level 2 while two patients stay at level 1 (due to general condition weakness). For the second group with K-level 2, 18 patients reached k-level 3, and six patients reached k-level 4.

Conclusion: The high quality prosthesisimproves the actively level of below knee amputees. The provided below knee prosthesis from Royal rehabilitation center is high quality and improved the activity level significantly.

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Latest Advances in Spinal Cord Injury Rehabilitation Management

Chitra Kataria MD (India)

Spinal cord injury not only results in a devastating change to a person's physical functioning and independence, but also predisposes the individuals to various secondary complications throughout life, which may interfere with health and well being, social activity, productive employment and quality of life.
Rehabilitation is the key to improve quality of life in patients with Spinal cord injury. Progress in the care of people with spinal cord injury (SCI) spans every aspect, from research in neuro-regeneration to pharmacologic interventions. This presentation focuses on advances in rehabilitation interventions, which have employed bioengineering, computerization, and advanced therapeutic techniques. These interventions are being applied to functional deficits of the upper extremities, and respiratory system, as well as to improvements in ambulation and mobility. Functional electrical stimulation (FES) is being used to augment the function of the lower extremities and the upper extremities. Body weight-supported treadmill training is being used to improve ambulation in people with incomplete SCI, and advances in wheelchair technology are expanding options for mobility. The introduction of Virtual Rehabilitation has also opened new arenas of SCI Rehabilitation. The simulated game based environment encourages the patients to perform activities that he may otherwise not attempt. Robot-assisted training is an adjunct therapy for physical and functional recovery for patients with SCI. Robot-assisted arm and hand training after Spinal cord Injury has shown to improve the patients' activities of daily living, arm and hand function, and arm and hand muscle strength. Similar application of Robotics in Locomotion training has been seen over the recent years.
The effectiveness of rehabilitation interventions needs to be documented by evidence-based research. Researchers are focusing on the identification of outcomes measures that will form the basis for established standards of care for individuals with SCI. Perhaps the combination of conventional and newer therapies may enhance neurological recovery in Spinal injured patients.

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Advance Technology (CAD CAM system) In Prosthetics and Orthotics

Walid M. Al-Dameh (CPO) (Jordan)

Computer aided design (CAD) is defined as the application of computers and graphics

software to aid or enhance the product design from conceptualization to documentation. Computer aided manufacturing (CAM) is defined as the effective use computer technology in manufacturing planning and control. The System includes 3D or 4D Scanner Camera, Computer-Aided shape modification software and Carving machine (automated carvers). 3D or 4D optical scanners enables you to electronically capture a high-resolution 3D or 4D model of your patient in seconds – without any patient contact or the mess and discomfort of plaster. The Advantages of scanning is more accurate**,** faster, safer and more reliable, permanent record, unaffected by nearby metal objects .Modification Software computer-based design tools enable us to make shape modifications that are more anatomically correct. We can rotate, align, and twist in ways that we just cannot do in plaster and quickly make sophisticated shape modifications. Milling is the machining process , It is one of the most commonly used processes in industry and machine shops today for machining parts to precise sizes and shapes , with high speed ,light foam mold and fabricates the device directly . The advantages from using CAD-CAM System than Plaster Casting in our Center are easy to use than casting , more accurate , increase the quality , increase the productivity , saving time and effort , clean for the patients and staff , design are easily repeatable , more pleasant for patients and easy for follow up.

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Telerehabilitation Solutions for Community Based Rehabilitation of Spinal Cord Injury Persons

Chitra Kataria MD (India)

The rapid evolution of technology has allowed health professionals to begin to adapt to these changes and deliver healthcare in a new, remote fashion. Telerehabilitation is a term used to describe the provision of rehabilitation across the spectrum of acute, sub-acute and community settings at a distance, using telecommunications technology as the service delivery medium. Telerehabilitation relates to the services delivered by a number of health disciplines including physiotherapy. It may involve the full spectrum of patient care including the interview, physical assessment and diagnosis, treatment, maintenance activities, consultation, education and training. More recently, mHealth has come into play, which refers to the concept of using mobile devices, such as phones, tablets and smartphones in both medicine and public health.

Telerehabilitation utilises a broad range of technologies to facilitate treatment. These include technologies such as the videophone, hardware videoconferencing systems, personal computer based videoconferencing systems with dedicated software tools, sensor technologies and extensive, fully immersive virtual reality systems with and without patient feedback. Image based technologies can be successfully used for the remote diagnosis and management of clients. Sensor based telerehabilitation utilises sensor technologies to sample and quantify movement through three-dimensional space. Virtual reality based telerehabilitation systems make use of configurable computer-generated three dimensional virtual environments to elicit specific movement and motor responses by the client. The virtual environment can be displayed to the client via computer screen. Physiotherapists are able to manipulate these environments to incorporate key rehabilitation concepts such as task repetition, feedback and motivation which have been demonstrated to result in the learning of new motor skills which translate to the real world.

Spinal cord injury is a life altering condition that constitutes a great challenge of care once discharged from the hospital. People with SCI are at an increased risk of developing secondary conditions include spasticity, pressure sores, urinary tract infections post discharge. Preventing the onset of secondary conditions in SCI is of substantial public health significance. Since persons with spinal cord injury (SCI) are confronted with all kinds of short- and long-term problems in functioning after discharge from initial rehabilitation, the need for continuing care for persons with SCI living in the community is of great extreme importance. Tele-rehabilitation has been proposed as a promising way of delivering rehabilitation services, increasing accessibility and enhancing continuity of care at a distance by using electronic information and communication technologies to serve clients, clinicians, and systems by minimizing the time, and cost.

This talk shall highlight the application and benefits of Telerehabilitation services for community based rehabilitation of Spinal cord injured patients.

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Management of Acute conditions and Emergencies in Periodontics

Tariq Javed MD (USA)

In a busy dental practice, clinic, or a medical center, many patients suffer from dental and periodontal conditions which require urgent attention and management. The reasons for patients seeking emergency care is predicated by severe discomfort, pain, debilitation and emotional distress that their emergency status may be indicative of a serious underlying disease or pathology. This presentation will discuss the most common acute conditions and emergencies in Periodontics and Dentistry at large. The conditions/pathology will be classified as "Incidental" and "Conventional", and presentation will focus on the signs and symptoms, diagnosis, differential diagnosis, treatment , and prevention. The presentation will include the recognition, consequences, and management of parafunctional habits, necrotizing ulcerative periodontitis, periodontal abscess, aphthous ulcers, primary and recurrent herpetic gingivostomatitis, infectious diseases impact on the periodontium, management of bleeding, and the pregnancy related gingival/periodontal emergencies and management.

(240)
Intentional Replantation: Is Still a Valid Treatment Option?

Mohammad Hammad MD (Jordan)

Primary goals of endodontic treatment are the prevention and/or resolution of pulpal and periapical pathoses with the re-establishment of healthy periradicular tissues. When a tooth has been nonsurgically retreated and disease persists, options include extraction and replacement using a single-tooth implant, a fixed dental prosthesis, or a removable dental prosthesis; apical microsurgery; and intentional replantation and autotransplantation.
Intentional replantation is an often-overlooked but cost-effective treatment that allows patients to retain their teeth. It is usually the last option prior to extraction. Intentional replantation may also be indicated when apical surgery is contraindicated because of anatomic factors such as the mental foramen, mandibular canal or thick bone, periodontal attachment loss, or some medical conditions.
Intentional replantation entails insertion of a tooth into its alveolus after it has been extracted for the purpose of performing a root-end filling or root repair. This lecture aims to provide an insight into this surgical procedure in the light of the most up-to-date evidence found in the literature.

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A New Approach to Camouflage Patients with Class III Malocclusion

Ahmad Madallah Al-Tarawneh DDS (Jordan)

A Class III malocclusion is considered to be rare compared to other types of malocclusion with an incidence of possibly 5%. It is of special interest to the orthodontist because it offers a therapeutic challenge. In addition, it is usually a progressive type of malocclusion which makes it difficult for the clinician to predict the future growth of such patients both in magnitude and direction. Even after achieving good results and following the cessation of active treatment, these patients have a high tendency for relapse. There are many methods to treat class III, Camouflage treatment with fixed appliances is one of these methods used. In this presentation a new approach using fixed appliances called "force system in synch" will be described in detail and some cases will be presented.

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Periodontal Surgery to Enhance and Support Restorative Dentistry/Prosthodontics, Ridge Augmentation, Smile Enhancement

Tariq Javed MD (USA)

This presentation will focus on the status of the Periodontium and the short and long term success of restorative dentistry. The integral interrelationship of Periodontics and Restorative Dentistry, and the understanding of the concepts of biologic width and periodontal health , as it relates to margin placement of restorations will be discussed. The periodontal surgical procedures utilized in enhancement of clinical crown length will be discussed to include Periodontal

Osseous Surgery, Periodontal Soft Tissue Surgery, Mucogingival Surgery, and Soft Tissue Resection Surgery. The clinical cases will be discussed to illustrate the role of Periodontal Surgery in achieving success in Restorative Dentistry, and how, instead of extraction the dentition could be saved, and utilized for simple or complex restorative dentistry. Ridge augmentation, and smile enhancement surgical procedures will also be introduced, during presentation.

(244)
Application of Digital Technology in Prosthodontics

Sandra Kamel AlTarawneh MD (Jordan)

During the last two decades advances in the digital technology related to dental applications resulted in a revolutionary change in our everyday practice procedures, including digital charting, digital photography, digital radiography, digital impressions, digital jaw recording, computed tomography, direct CAD-CAM restorations, indirect CAD-CAM restorations, and 3D planning. Those emerging technologies are evolving rapidly necessitating a transition in our practices to include digital workflow as well as posing the necessity to be up-to-date with the recent advances in this field. The aim of this presentation is to provide an update on the most recent advances in digital technology related to prosthodontics: fixed, removable, and implant dentistry.

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The Use of Direct Composite Restorations for Management of Generalized Tooth Surface Loss (TSL), Loss of Vertical Dimension of Occlusion and TMJ clicking.

Nader Masarwa, Haneen Al-Awabdeh

Objectives:The aim of this presentation is to describe a conservative minimally invasive technique by which direct composite is used for treatment of teeth suffering from generalized tooth surface loss (TSL), loss of vertical dimension of occlusion (VDO), poor esthetic and TMJ clicking.

Methodology:A 32 year old male patient with history of recurrent vomiting and resultant generalized tooth surface loss (TSL) was referred to Restorative dental clinic for treatment of poorly esthetic anterior teeth and TMJ clicking. The condition was treated with direct composite fillings using indirect indexing method.

Results and Discussion: Satisfactory esthetic results were achieved after the sequential use of direct composite. TMJ clicking disappeared after one week of treatment. Replacing missing tooth structure due to TSL is challenging and requires a careful understanding of the etiology, occlusal relation of teeth, adequate knowledge of bonding techniques and efficient clinical handling of composite fillings.

Conclusion: Direct composite restoration present a long term minimally invasive less expensive treatment option for treatment of TSL and the subsequent poor esthetic, lost VDO and TMJ clicking.

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Oral Health Status in Jordanian Children below the age of 16 years attending Oral Dental Health Clinic at Prince Rashid Military Hospital

Eman Hussein Hammouri, BDS, JDB (Pediatric Dentist), Dherar Seba'i, 'Ala' Irshaidat, Isra'a Nawasrah, Sa'da Al Alasad, RN

Objectives To assess oral health education in the first pediatric dental health education clinic in Jordan at Prince Rashid Bin Al Hassan military hospital in Irbid.

Methodology The study was conducted prospectively and includes all the children who were referred by the pediatric dental clinic to the Oral Health Education clinic in Prince Rashid Bin Al Hassan military hospital in Irbid between August 2016 and July 2018. A questionnaire was used to gather information from the parents or child dental care givers and include age, gender, eating habits, dental brushing, age at first brushing, and frequency of brushing, and information about the parents/ dental care giver and family which include parent's/ dental care giver's age, gender, job, education (School, college, or post graduate degrees), monthly income (< 500, 500- 1000, or >1000 JDs), and number of family members. Oral examination was done by the pediatric dentist and

the following were recorded: number of missing teeth, number of carious teeth, number of filled teeth, Plaque index (1-3), and the presence of calculus. The patients were divided into 3 groups according to age: 0-6, 7-12, and 8-18 years. Patients with incomplete data were excluded.

Results and Discussion 374 patients were included, 202 (54%) males and 172 (46%) females. The average age 8.19 ± 3.33 years (1 month- 16 years). Eating habits: 1 meal 6 patients, (1.6%), 2 meals 81 (21.7%), 3 meals 287 (76.7%), and all of them had in between snacks. 86 (23%) brush their teeth and 288 (77%) do not brush. The average age at first brushing was 4.46 years (1month-13 years), 73 patients knew the age of first brushing and 301 don not know. The majority brush their teeth occasionally, 326 (87.2%), while 30 (8%) brush once, 15 twice (4.3%), and 3 (0.8) thrice. Missing teeth were found in 254 (67.9%), average 1.71(range 1-7). The fillings were found in 180 (74.9%) patients, range number of fillings 1.14 (1-3). 350(93.6%) patients had carious teeth (1-15, average 3), The DMFT was 4.52. Plaque index I: 336 (89.8), II: 37 (9.9%), and III: 1(0.27%). Dental calculus was seen in 3(0.8%) patients. The average age of dental care giver is 39.3±6.8 (23-65 years), 209(55.9%) males and 165(44.1%) females, 151(40.4%) house wives, 100(26.7%) retired, 89(23.8%) soldiers, 10 (2.7%)teachers, 6 (1.6%) policemen/policewoman, an 18(4.8%) outdoor free workers. The majority of dental care giver education is school level, 270(72.2%), college education 92(24.6%), and post college education 12(3.2%). The monthly income is less than 500 Jordanian Dinner was found in 327(87.4%), 500-1000 JDs in 47(12.6%), and none of them had more than 1000 JD. The average family member was 6.1± 1.7(2-12).

Conclusion Oral Disease is a significant public health problem in Jordan. Poor oral hygiene was associated was poor dental education and poverty. Most of the parents believed that milk teeth do not need to be brushed and this belief explains the high incidence of dental caries, missing teeth, and the high percentage of plaque index. Pediatric dental health education proved to decrease the risk of dental caries, oral health, and improved quality of life. Oral health promotion should be established through systematic school oral health program. This clinic was the first one in the Kingdom and it was paired with the dental baby clinic at Nationwide Children's hospital in Columbus, Ohio, USA.

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Advanced Surgical Techniques in the Therapy of Neoplastic Lesions of Parotid and Salivary Glands

Roberto Becelli MD (Italy)

Salivary glands can often be affected by neoplastic lesions both benign or malign. The only known aetiology to which salivary gland tumours are correlated is radioactive exposition, other aetiologies, if present, are still unidentified. More often than not, the therapy is surgical and can vary between the simple removal of the lesion up to the total amputation of the subjected gland with, eventual, lymph nodes. Surgery evolved through the years, leading to more sophisticated and less invasive techniques in order to guarantee a higher chance of preservation of the facial nerve integrity and quicker rehabilitation of the operated patient.

(249)
Fixed Detachable Implant Prostheses; From Planning to LongTerm Maintenance

Mohammad Al-Rababa'ah,MD (Jordan)

Implant supported fixed datable Prostheses had been a successful modality in treatment of fully edentulous patients for more than three decades. It can be used when replacing missing or unsalvageable teeth along with substantial amount of soft tissue is warranted in full arch and extensive partial arch replacements. The transitions from heavily debilitated dentition or completely edentulous state into having "fixed" reconstructions is considered by most patients as a major improvement in their quality of life. Yet to have the desired long-term success of the prostheses it is crucial to consider few pre-requisites from patient's selection to maintenance of the Prostheses. This Presentation will present few clinical cases of implant supported fixed detachable prostheses and will highlight the techniques and materials used to produce those prostheses. It will also discuss maintenance issues and management of complications.

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The Use of Botulinum Toxin A (Botox) in Pediatric Dentistry

Maan Y. Alfar. BDS, MDENTSci in Pediatric Dentistry, JDB

Abstract Botulinum toxin A (Botox) is the toxin responsible for a form of food poisoning called botulism. Paralysis is the most serious complication of botulism. Botox works by blocking the release of a substance the nerve uses to signal the muscle to contract. The injection treatments have proven useful in patients with muscle tightness.
In this lecture we are going to present clinical cases that the Botulinum toxin (Botox) injections have been used successfully to treat self mutilation and spasticity in patients with congenital insensitivity to pain and cerebral palsy, excessive salivation and other neuromuscular conditions. However, Approval for this use is still being reviewed

Procedure Botox is injected into the affected muscles during a simple clinic procedure. Approximately one half hour before the injection, a numbing medicine is placed on the child's skin at the injection site. A small needle is used for the Botox injection itself, which usually causes minimal discomfort. The initial effects of the treatment are typically seen as early as three to five days after injection, with more visible effects seen by the first or second week. The effects generally last between three and six months. At that time, the nerve makes new fibers and resumes sending signals to the muscle to contract

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Sedation in the Clinic: Challenges for the Pediatric Dentist

Enas Fawwaz Othman, Taghreed Jaradat

Objectives Providing quality dental care to children is not easy and need new techniques to guarantee success and child safety in addition to parent's satisfaction.

Methodology Recently, death and permanent neurological damage may be the final end for a child coming for simple tooth extraction if inappropriate sedation for dental procedure is used. Improving child monitoring, safe and correct selection of cases with appropriate dosing of drugs are of paramount steps in the clinic to reduce mortality and morbidity.

Results and Discussion The mainstay of pediatric dental sedation is oral sedation which has experienced many modifications in types and ways of drugs given.

Conclusion This presentation will cover the risks of complication, common challenges and the ideal solutions for the practitioners and parents to be taken in the clinic for safe and effective management.

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Periodontal Disease in Militry Aviators

Dr. Manal Abu Al Ghanam, Major Tahani Daaja,RN, Walla Abu Hammad,RN, Ameera Maayah, dental hygienest

Objectives Our objective was to clinically evaluate the incidence of periodontal disease among our military aviators.

Methodology Miliatry pilots and ground officers attending for their annual medical check up are being screened for periodontal disease clinically. X-rays,pocket depths and clinical attachment loss are measured. Patients with periodontal disease are referred for treatment at our specialty clinic.

Results and Discussion The aviation industry is a high risk environment,being a pilot military or civilian ,is considered a unique job that requires managing high work loads and good psychological and physical health. periodontitis on the other hand is a multi-factorial disease with several risks and susceptibilities have been associated with it like systemic diseases, socio-economic or educational status, tobacco smoking and psychological stress. We are still working on our sample pilots and officers, results will be ready by end of October.

Conclusion The well being of the military pilots is the responsibility of the medical and dental team at Air force medical facility, Pilots are carrying out a tremendous and risky job and this stress can be a cause or risk factor of many medical conditions that should be treated or prevented. Further Studies are needed in these fields, but mean while we recommend a thorough annual check up

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Diabetes and the Risk of Malignancy

Paul E Jennings MD (UK)

Type 2 diabetes is associated with an increased risk of mortality from a range of solid tumours, including cancers of the colon, breast, endometrium and pancreas. Similar associations have been noted with central obesity and other conditions associated hyperinsulinaemia. These observations have given rise to the hypothesis that growth of these tumours, which are characterised by abnormal expression and function of the insulin–IGF-1 series of receptors, is promoted by the trophic action of insulin interacting with these receptors. As recognition increases that cancer should be numbered among the complications of diabetes, the possibility that therapies for diabetes may influence tumour progression is attracting increasing interest and concern. Consequently, the treatments that may cause hyperinsulinemia, such as sulfonylurea and exogenous insulin, are thought to increase the risk of cancer. The safety of the insulin analogues, which have subtly modified receptor binding properties that accelerate the growth and proliferation of cell lines in culture have been extensively studied. Similarly concerns have been raised about Pioglitazone being associated with an increased risk of bladder cancer. The large meta analyses have neither implicated nor absolved any specific individual glucose-lowering therapies in the relationship between diabetes and increased risk of cancer. They find no evidence to support a hypothesis that improved glycaemic control, through combination of glucose-lowering medications, reduced the risk of cancer incidence or mortality. However, the studies do produce accumulating evidence to suggest metformin patients on metformin are less likely to be diagnosed with cancer.

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Management of Sub Clinical Hypothyroidism in Pregnancy

Dina Zaqa MD (Jordan)

The topic of subclinical hypothyroidism during pregnancy has gained popularity in the last two decades, starting with the publication by Haddow et al in 1999, that suggested that undiagnosed hypothyroidism in pregnant women is associated with offspring neuropsychological delay, manifested as slightly lower IQ in childhood. The cutoff of TSH to be used for initiation of treatment is still a matter of controversy. Some recent studies looking at the cutoff of 2.5 that had been suggested previously did not show similar findings. In terms of the pregnancy itself, subclinical hypothyroidism has been associated with increased pregnancy loss, although to a lesser extent than overt hypothyroidism.
The objective of this lecture is to briefly review the effect of subclinical hypothyroidism and its treatment on pregnancy outcomes.
3. Blumenthal NJ, Eastman CJ. Beneficial effects on pregnancy outcomes of thyroid hormone replacement for subclinical hypothyroidism. J Thyroid Res. 2017.

(257)
Latest Updates in Management of NASH in Diabetes

Paul E Jennings MD (UK)

Non-alcoholic fatty liver disease (NAFLD) and type 2 diabetes (T2DM) are common conditions that regularly co-exist and can act synergistically to drive adverse outcomes. The presence of both NAFLD and T2DM increases the likelihood of the development of complications of diabetes (including both macro- and micro- vascular complications) as well as augmenting the risk of more severe NAFLD, including cirrhosis, hepatocellular carcinoma and death. The mainstay of NAFLD management is currently to reduce modifiable metabolic risk. Achieving good glycaemic control and optimising weight loss are pivotal to restricting disease progression. Once the diagnosis of NAFLD is made, clinicians should focus their attention on assessing the risk of the patient of having NASH or advanced fibrosis, which are much more common in patients with T2DM. Once cirrhosis has developed, it is necessary to screen for complications and minimise the risk of hepatic decompensation. Lifestyle intervention is beneficial for patients with NAFLD, improving not only liver disease but also hyperglycemia, atherogenic dyslipidemia, and blood pressure levels but are only as good as the magnitude of weight reduction they produce. Bariatric surgery and studies with weight loss medications such as orlistat or liraglutide have reported histological improvements proportional to the amount of weight loss. In patients with

NASH and prediabetes or T2DM, the evidence appears to show that pioglitazone has the greatest treatment effect. It targets not only liver histology, but also the underlying metabolic disturbances, in particular insulin resistance.

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Endocrine Causes of Osteoporosis

Dina Zaqa MD (Jordan)

Before starting any treatment of osteoporosis, secondary causes of bone loss have to be ruled out in order to ensure the correct diagnosis, and to maximize treatment benefit.
Contributing factors related to calcium and vitamin D metabolism with secondary hyperparathyroidism stand among the most common secondary causes of bone loss. Other potential endocrine etiologies include primary hyperparathyroidism, hyperthyroidism, amenorrhea, and less commonly Cushing's. The approach to identify underlying causes includes detailed history, basic blood tests, and then disease-specific evaluation based on suspicion.

The objective of this lecture is to demonstrate the importance of looking for and treating endocrine causes of bone loss through a short review and a few cases.

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NET, Latest Update

Dr.Ali Alzubi MD (Jordan)

Neuroendocrine tumors are rare tumors. They arise from enterochromaffin cells which are distributed in different tissues of body including thyroid gland, bronchial tree, thymus, pancreas, GI mucosa and others. They can arise sporadically or be part of other syndromes (e.g. MEN 1&2, VHL, NF-1, tuberous sclerosis). The classifications of these tumors depend on multiple aspects, including classification according to function, site of origin and histological classification. The symptoms of these tumors are multiple and non-specific making the differential diagnosis wide and delaying the diagnosis, which leads to the fact that significant portion of NETs are metastatic at time of diagnosis. Treatment of these tumors includes surgery and medical treatment. The surgery can be radical, or for debulking or palliation. The medical treatment includes SOMATOSTATIN ANALOGS (octreotide, lanreotide, & pasireotide), TARGETED THERAPIES (everolimus, sunitinib), INTERFERON α, TELOTRISTAT, PEPTIDE RECEPTOR RADIONUCLIDE THERAPY (PRRT) and CHEMOTHERAPY. The option of treatment depends on the site of tumor, the fuctional status, the histologic type and the extent of tumor or metastasis.

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TAVI in the Era of Intermediate Patients

Ulrich Gerckens MD

The new concept of a transcatheter based valve implantation (TAVI) was initiated after the clinical experience that balloon valvuloplasty as a stand-alone strategy showed a restenosis rate of up to 80% after 6 months follow/up. In the era of aortic valvuloplasty a large untreated patient population was identified; refused or even newer presented to the cardiac surgeons for aortic valve replacement especially at higher age (> 80 years) and significant comorbidities with a prohibitive risk for perioperative morbidity and mortality . In 2007 two TAVI devices (a self-expanding Nitinol frame Medtronic CoreValve and a balloon expandable system (Sapien Edwards) was approved in Europe (CE mark) after the initial feasibility and safety studies in extreme surgical risk patients .
In a prospective randomized trial (Partner I and II) in 2010 the short-term safety and efficacy of TAVI in symptomatic severe aortic stenosis patients in comparison to surgery was published . More recently TAVI has been shown to be non-inferior to surgical valve replacement in symptomatic patients, deemed intermediate-risk for surgical intervention (Reardon et al, Leon MB et al, N Engl J Med 2016/2017)
The US pivotal trial using the Medtronic CoreValve/ Evolut device demonstrated the first time superiority in clinical outcome of TAVI compared to surgical patients up to three years' follow-up with improved over-all survival.
The surgical risk assessment was initially driven by scoring indices like the EuroScore or STS score, but these scores were newer proven in non-surgical patients. In the following trials the clinical decision (TAVI vs AVR) was based on a heart team judgement including the age , comorbidities and frailty of the patient in addition to the STS score. Despite the proven clinical safety and efficacy of

TAVI still the majority of the treated patient up to date are octogenarians .
As adoption of TAVI expands into younger and lower risk patient (with longer life expectancy) longer-term clinical outcomes and bioprosthetic valve durability are of increasing importance . The Advance trial demonstrated 5-years results using the CoreValve / Evolut device with consistent low mean aortic valve gradients and showed a valve durability through 5 years with low rates of reinterventions and hemodynamic valve dysfunction (Euro Heart J 2017)
Now studies are ongoing in low surgical risk patients demonstrating the increasing acceptance of TAVI which is expected as the treatment of choice in the majority of patients with aortic valve stenosis in the future.

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Atrial Fibrilation, Current Management

Yahya Badaieneh MD (Jordan)

AF Burden
Mechanisms
Guidelines for anticoagulation.
Treatment Options
Discriminate between patients requiring restoration of sinus rythem VS. rate control alone
Non-Pharmacologic Therapy
Determine when patients should be evaluated for curative ablation.

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TAVI in Bicuspid Anatomies: Sizing and Implantation Technique

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Patients with bicuspid valves represent a challenging anatomical subgroup for transcatheter aortic valve implantation (TAVI). In the initial pivotal trials, the bicuspid anatomy was an exclusion criteria and therefore the clinical experience in sizing and implantation technique is limited.
Bicuspid valves are the most common congenital aortic valve anomalies, represented in up to 2 % of the TAVI candidates. Compared to tricuspid valves the bicuspid valves have a larger annulus perimeter, an asymmetrical valve orifice and more heavily calcified leaflets / raphe often in combination with a dilatation of the ascending aorta.
In contrast to the proven sizing method for tricuspid valves following the perimeter of the virtual annulus (at the level of the insertion of the leaflets) in bicuspid valves the concept of the effective opening area (EOA) was introduced. Due to the fact that the bicuspid valve leaflets constrain the expansion of the TAVI device frame preventing it from reaching the expected dimension derived from the annulus measurement. Different supraannular measurements (5 and 8 mm above he annulus) are under evaluation including the length of the calcified raphe and the maximum diameter between commissure to commissure at sinus level.
In addition, the technique of the sizing balloon (contrast injection during balloon inflation) to identify the EOA (no regurgitation around the balloon and a balloon waste) is another option to determine the appropriate valve size. The intended high implantation in bicuspid valves of the TAVI system is based on the higher anchoring level at the leaflets.
Clinical cases will be presented to demonstrate the different technique in bicuspid valves.

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Supraventricular Tachycardia (SVT)

Munir Zaqqa MD (Jordan)

Supraventricular tachycardia is an arrhythmia that affects people of all age groups. It can cause significant morbidity due to the negative effect of tachycardia on cardiac output. To establish the diagnosis one should attempt to do an electrocardiogram during symptoms. Several options are available for the acute treatment of SVT such as different valsalva maneuvers, various AV nodal suppressing drugs and in extreme cases cardioversion. This arrhythmia tends to recur and therefore chronic medical therapy may need to be taken. People who still have symptoms despite optimal medical treatment have an option to do ablation. This can be totally curative with a relatively low procedural risk and therefore may be even offered as an early option of treatment once the diagnosis is made.

(264) Early Experience with TAVI at QAHI

Abdalla Omeish,MD (Jordan)

background: Trans-catheter aortic valve implantation (TAVI) has been recognized as a valid alternative to surgery and is now the standard of care for severe aortic valve stenosis (AS) in inoperable and high-risk patients who are commonly turned down from surgeons due to significant mortality associated with surgical aortic valve replacement (SAVR). As of 2018, TAVI has been performed inconsistently in very limited number of cardiac units in Jordan but there have been no publications yet on this life –saving transformational therapy across the country.

objective: We sought to describe our experience in TAVI at Queen Alia Heart Institute (QAHI), which was launched in our center early in 2015 aiming to determine the clinical outcomes of TAVI in our Jordanian population.

patients and methods: Data on 41 consecutive Jordanian patients (pts) who underwent TAVI at QAHI between March 2015 and August 2018 were prospectively collected. Demographic, echocardiographic as well procedural data were analyzed. Clinical outcomes were described according to the Valve Academic Research Consortium2- criteria.

results: Among the cohort, 22 (53.7%) were males, 13 (31.7%) diabetic, 20 (48.8%) hypertensive, 4 (9.8%) had renal impairment, 10 (24.4%) had prior coronary stenting, 5 (12.2%) had prior CABG and 3 (7.3%) had LV impairment < 35%. Five (12.2%) pts had bisuspid valves, one patient had pure grade IV aortic incompetence and one patient had degenerative old bioprosthesis. Our population group had a mean age of 77.4 ± 8.7, Society of Thoracic Surgeons scores, 4.8 ± 3.5, logistic euroscore 16.3 ± 13.5. The mean F/U duration was 41.5 ± 36.9 months, median 30 ± 11 months with interquartile range of 28 months. Procedural success was achieved in all pts using self-expandable trans-catheter heart valves via percutaneous approach, under conscious anesthesia without any conversion to SAVR. Eleven (26.8%) pts received the first generation corevalve and 30 (73.2%) received the newer Evolute R version. Repositioning was performed in 6 pts (14.6% of the procedures).
All approaches were transfemoral and closed successfully using vascular closure devices except the first case, which was converted to surgical correction due to excessive uncontrolled bleeding and failed closure device at the access site. TAVI was combined with coronary stenting in one case and peripheral angioplasty in two cases to assist in device advancement. Mean duration of hospitalization was 9.4 ± 3.3 (range 5-21) days. All pts were symptomatic: 36(87.8%) in class III-IV and 5 (12.2%) were in class II New York Heart Association (NYHA) functional class. After TAVI 32 (78%) became class I and 7 (17.1%) improved to class II.
The mean transvalvular aortic gradient was reduced from 52.1 ± 11.3 mmHg at baseline to 7.7 ± 4.0 mmHg at discharge.
Trace and grade I residual angiographic paravalvular leak was observed in 14 (34.1%) of pts, grade II documented in 4 (9.8%) with a significant aortic insufficiency (≥Grade II+) observed in only one patient (2.4%). None required additional procedures during follow-up period.
Complications included major and minor vascular complications in 3 pts (7.3%) and 10 pts (24.4%) respectively. Life threatening bleeding happened in 3 pts (7.3%). Femoral access complications were observed in 13 pts (31.7%). Two patients (4.9%) had acute kidney injury but did not necessitate dialysis. Pericardial tamponade was recorded in 2 patients (4.9%) related to pacemakers with no major consequences. Non disabling stroke in 2 (4.9%) pts and disabling stroke in one patient (2.4%). Five patients (12.2%) received permanent pacemakers.

conclusion: TAVI experience at QAHI is encouraging and comparable to international outcomes in terms of success, morbidity, and mortality rate. Although representing the first reported series of TAVI in Jordan until now, our results still reflect the experience in a limited number of cases. The key metric of high device pricing remains to be solved before this life saving treatment can be expanded.

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Primary Percutaneous Coronary Intervention in ST-Elevation Myocardial Infarction. Strategy Management in Patients with Multivessle Disease: Non-Culprit Lesions

Hatem Al-salaheen Abbadi MD (Jordan)

Coronary artery reperfusion with primary percutaneous coronary intervention, improves outcomes in patients with acute ST-elevation myocardial infarction (STEMI) if performed in a timely fashion. the lesion responsible for the infarct, often referred to as the "culprit lesion," Approximately 40% to 65% of STEMI patients have multivessle disease (MVD) (i.e."non-culprit" lesions) which is strongly correlated with a higher frequency of major adverse cardiac events (MACEs).

According to the current guidelines for the management of patients with STEMI, PCI should not be performed in a non-culprit artery at the time of the primary PCI. However,do not suggest the optimal timing of PCI, it is reported that only 2% of interventional cardiologists surveyed in the United States recommended nonculprit PCI in patients with STEMI at the time of the initial PCI. There are some other potential pitfalls of the unconditioned multivessel PCI approach approximately in half of non-culprit lesion the severity at the time of acute angiography may be overestimated,complications may lead to a worse outcome , increased risk for contrast induced nephropathy.

According to the current guidelines, (PCI) of the nonculprit vessel in patients with STEMI and MVD should not be performed at the time of primary PCI except in patients with cardiogenic shock. However, Three approaches are used in clinical PCI strategy in patients with STEMI and MVD including, simultaneous PCI of the nonculprit vessel during primary PCI, a staged PCI of the nonculprit vessel after primary PCI, and a conservative approach with PCI for the nonculprit vessel only in cases of persistent ischemia or a positive result on an ischemia-provoking test.

Overall, staged multivessel PCI improved short- and long-term survival and reduced repeat PCI. Still, large randomized trials are required to confirm the benefits of this approach.

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Stenting of Coarctation, state of Art. Jordanian experience

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Objectives: This study aims to present our experience in coarctation stenting in Queen Alia Heart Institute.

Background: Coarctation of the aorta (COA) accounts for 4% to 7% of all congenital heart disease (CHD). Most cases diagnosed in neonatal period and infancy and undergo corrective surgery as an accepted standard of practice. However, many cases are unrecognized until late childhood or adulthood. Recent advances in equipment and expanding collective experience have positioned balloon-expandable stents a safe and effective alternative to surgical repair or angioplasty in a growing range of patients

Methods: Between 2013 and 2018 , We performed 37 stent placement for coarctation of aorta. All of the 37 procedures were successful, as defined by reduction of the gradient to less than 20mm Hg. All cases presentation were reviewed and all were evaluated by 2D echo echo Doppler and Aortic arch CT angio.

The follow up in clinic period ranged from 1month to 5 years. The acute and chronic complications were reviewed, as well as, other associated cardiac anomalies seen.

Results: In all 37 case the Stenting was successful, males account for 25 cases(68%)and females were 12 cases (32%). The age ranges from 9 years to 48 years old, while the weight from 25kg to 107 kg.

The main presentation was hypertension, previous coarctation intervention or repair , left ventricular impairment in 3 cases, claudication in 2 cases, murmur in 3 cases.

Associated cardiac abnormality noticed in 23 cases (62%) and the bicuspid aortic valve was the most associate around 9 cases (24%), the rest were ventricular septal defect in 6 cases, Ebstien anomaly in 2 cases sub aortic membrane in 1 case and mitral abnormality in 4 cases.

Covered stents used in 17 cases(46%) and the rest were per metal stents. There were a total of 4

acute complication (10.8%) that were dealt with; femoral access vessel related, concealed dissection managed by covered stent, infected hematoma, fever that was dealt with as endarteritis. There was no procedure related deaths nor cerebrovascular accident. For chronic complication, there were 2 cases with pseudo aneurysmal formation, residual mild systemic hypertension noticed in 19 case upon follow up, residual aortic incompetence in 2 cases, arrhythmia in 4 cases ,as 2 were supraventricular tachycardia and the other 2 were atrial fibrillation.

Conclusion: Coarctation stenting is feasible and the treatment of choice in patients with coarctation and above 25 kg. Good decision and selection of the patient match with good results, it has good prognosis though the later the presentation, the more they would have complication and residual hypertension.

(270) Right Coronary Artery Re-Implantation, QAHI Experience

Saad F. Jaber MD (Jordan)

Introduction: Anomalous aortic origin of coronary arteries is a rare cardiac disorder. Corresponding incidences are assumed to be between 0.1% and 0.3% for right coronary aberrancies. Several surgical techniques have been described for treatment of aberrant anatomy Of Coronary Arteries {AAOCA}: Coronary artery bypass graft surgery (CABG), "unroofing" technique, Re-implantation of the coronary ostium, and Translocation of the pulmonary artery.

Methods: We report a series of 19 patients whom all had aberrant origins of their RCA and were operated upon between Jan 2013- 2017.Their ages were between 24 -47.17 were males and 2 were females. All had surgical re-implantation of their RCA.

Results: In all cases, the reimplanted RCA had sufficient length without kinking or strain. Flow measurement by ultrasonography revealed excellent coronary flows. Procedure times were between 85 and 110 minutes, in total; aortic cross-clamp time was in average 25 minutes. The postoperative course was uneventful for all patients.

Conclusion: our reported technique represents a feasible and convenient approach and thus a serious alternative for treating AAOCA of the RCA originating from the left coronary sinus with a proximal intramural course.

Key words: Aberrant Anatomy of Coronary arteries, Right Coronary Artery, Re-implantation.

(271) Coronary Reimplantation in ALCAPA Preserving the Growth Protocol

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Yaser ALGhoul MD Anesthetist,
Mohammad Barham Perfusionist

Objectives: Many surgical methods have been described to deal with the anomalous left coronary artery in ALCAPA patients but many of them ended with long term unsatisfactory results especially in the extreme cases, we describe a surgical procedure for transferring the anomalous left coronary artery in these patients with a midterm results

Materials and method: This is a prospective study were patients enrolled into the study either from referred cases or primary visits to Queen Alia Heart Institute (QAHI) at the congenital heart clinics. After admission, full history and physical examinations is recorded, all cases had EKG, 2D-Echo, coronary CT angiograms and the adult form had undergone coronary catheterization in addition. The surgical procedures are done by one surgeon by reconstructing a double coronary artery system keeping the LCA Ostia in place. Follow up every 3mons till the first year then every 6months for the 2nd year then yearly visits

Results: From January 2010 till December 2017 we operated upon 15 cases with different degrees ALCAPA. Age from 2 months till 18 years (infantile type 14 patients and one adult type), 12 females and 3 males**.** Mean CPB time (90.5 min) mean cross clamp time (65 min) hospital stay (7.46 days) improvement in the LV function after 4- 6 mon. in 100% of cases , improvement in mitral valve regurgitation in 93.4 % (14 cases), temporary arrhythmias in one case and no mortality in this study

Conclusion: The midterm results of the our technique in the reconstruction of double coronary

system in ALCAPA patients is excellent and it seems to be durable

Key words : ALCAPA, congenital LV impairment, congenital severe MR

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Management of Residual Ventricular Septal Defect post-Surgical Repair

Zeid Makahleh, FRCS (C-Th), Basheer Obaidat MD

Background: With an incidence of 2-5%, the ventricular septal defect (VSD) is the most common congenital malformation of the heart. Therefore, VSD repair is the most commonly performed pediatric cardiac operation. We are trying to identify the best policy of management of Residual VSD post-surgical repair.

Methods: It is a single surgeon experience, between January 2012, and January 2018, 171 patients underwent an isolated VSD closure (n 112), Repair of Tetralogy of Fallot/Double Outlet Right Ventricle (n 38) and atrioventricular septal defect Repair (n 21). Routinely , all patients had postoperative transthoracic echocardiography in the intensive care unit, at hospital discharge, and during each follow-up visit. Residual defects were graded as absent (No leak), between 1 and 2 mm (Hairy, tiny), 3mm (small) or greater than 3 mm.
Patients had the surgical repair at a median age of 10 months (range, 4 months to 11 years).
Patients were followed up for a mean of 12 months (6months to 36 months).

Results: Residual defects between 1 and 2 mm (tiny) were found in 18 patients 10%(13 isolated VSD,3 post TOF repair,2 after AVSD repair), those were hemodynamically insignificant, required no medication, and no endocarditis prophylaxis was given. After discharge, 95% of all residual defects less than 2 mm closed at 6months, and all closed at one year.
Residual defects 3mm were found in 6 patients 3.5% (1 isolated VSD, 2 post TOF repair, 1 on DORV repair & 2 in AVSD repair) , one case closed after 18 months of follow up(the Isolated VSD), the rest are asymptomatic and managing well on Diuretics single daily dose.
Residual defects greater than 3mm were found in 5 patients 3% (2 post TOF repair, 2 on DORV repair & 1 in AVSD repair), all of them are around 4 mm defect and are hemodynamically insignificant but 5 cases of them(post TOF and DORV repair) have mild residual Right ventricular outflow obstruction. But all patients were in mild symptoms & were hemodynamically insignificant and managing well on low dose of Diuretics & ACE inhibitors. None of them had any surgical re-intervention.

Conclusions Postsurgical residual VSDs less than 2 mm closed spontaneously in all patients within a year. Defects greater than 2 mm are unlikely to close spontaneously. At midterm follow-up, residual shunts remained hemodynamically and clinically irrelevant. No patient underwent reoperation for a residual VSD.

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Fluid Responsiveness, an Update

Ghazi Aldehayat MD (Jordan)

Fluid administration as a treatment for hypovolemia is, is sometimes, straight forward and does not associated with adverse effect. However in certain patients, particularly the critically ill patients with coexisting systemic illness, fluid administration can be detrimental as well.
The correct decision to either to give fluid or alternatively to administer pharmacological agent is crucial and should depends on clinical scene, and experience in addition to a well validated monitoring devices.
Unfortunately, the long standing dependence on certain monitors such as central venous pressure is proved to be malpractice and central venous pressure is a poor predictor of fluid responsiveness. Many methods have good evidence on predicting fluid responsiveness, such as monitoring dynamic variables.

(274)
Simulation in Anesthesia

Ali Obeidat MD (Jordan)

The use of simulation in graduate and post graduate education has experienced exponential growth over the past years. Particularly in the field of anesthesia, the use of simulators to reproduce critical events in a realistic and stress-free

environment is an invaluable tool in providing anesthesia residents with the tools they need in facing any critical situation. More importantly, it offers trainers and supervisors that opportunity for real time feedback and tweaking of the case in order to cover a wide array of clinical presentations. Multiple institutions have utilized simulators in anesthesia training with a two prong approach focusing on both technical anesthesia skills and non-technical anesthesia skills. While it is hard to design studies that assess the outcome of simulations on patient outcomes, it is needless to say that simulators provide trainees with the opportunity to face critical situations in a learning environment that they wouldn't have had otherwise. This comes with the caveats that the procurement of simulators, their maintenance, and the training of trainers instills a significant financial burden on the institution. In conclusion, institutions in the Middle East need to expand their use of clinical simulators in the field of anesthesia in an effort to improve trainee technical skills, management of critical clinical scenarios, serious illness conversations, and even end of life discussions. Taken together, such interventions will have significant benefits on patient experiences and trainee competence.

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Airway Trauma

Peter GroomMD (UK)

Airway trauma is rare and presents the anaesthetist with the problems of an airway laceration, associated false passage and airway obstruction[1]. It's usually part of complex polytrauma, it's seriousness often being unappreciated by the trauma team.

Like all airway problems, it's a time management issue, with patients falling into one of three groups:

1. ***Adequate Time***: These patients have a stable airway and can be thoroughly assessed and investigated facilitating a robust intubation plan.
2. ***No Time:*** These patients have an obstructed airway and require emergent intubation to prevent hypoxic brain damage with no time for investigation. The anaesthetist must plan for the worst.
3. ***Some Time:*** Most patients fall into this category and have an unstable airway that is being maintained by them adopting a favourable posture. It allows some time for the anaesthetist to optimise and investigate the patient prior to intubation. Informed decision making is crucial: the situation is fluid and can be worsened or improved by a clinician's actions.

A trauma team has approximately 10-15mins to prepare for a casualty's arrival. During this time the possibility of airway trauma should be considered as well as what investigations, equipment and personnel could be needed. In 50% of blunt airway trauma cases the site of injury is at the cricoid or cricothyroid membrane contraindicating a cricothyroidotomy. So, should a surgical airway be required, it will be a tracheostomy and the team needs to locate a surgeon capable of performing this operation in advance.

The cornerstone of managing a patient with airway trauma is to assume the worst and anticipate the patient having an airway tear.

To manage this problem safely, spontaneous ventilation should be maintained and intubation performed under direct vision either by awake fibre optic intubation or awake tracheostomy. If the patient is uncooperative, contraindicating an awake technique, then a modified (no cricoid pressure or intermittent positive pressure ventilation) rapid sequence induction employing fibreoptic assisted video laryngoscopy should be employed to safely intubate such patients and avoid blindly entering a tear and creating a false passage. Should the primary intubation plan fail, Plan B will be a surgical tracheostomy, employing a fibrescope to ensure the tube does not enter a false passage (in 50% of blunt airway trauma cases the site of injury is at the extra thoracic trachea, thyroid cartilage or hyoid).

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Stellate Ganglion Block for Complex Regional Pain Syndrome in Upper Limb: Experience at Jordan University Hospital

Abdelkarim Al oweidi Al Abaddi MD (Jordan)

Shaher AlHadidi, Sami Abuhalaweh, Mahmoud Al Mustafa, Islam Massad, Khalid Al Zabin , Ibraheem qudaisat, Jihad Ajlouni

Background: Complex Regional pain syndrome (CRPS) is syndrome of pain which usually develops after an injury, or due to unknown cause but is disproportionate to the inciting event, not in distribution of a single peripheral nerve, and it is usually associated with edema, skin blood flow changes, abnormal sweating response, or allodynia or hyperalgesia sometimes it is difficult to treat. There are mainly two main types; type I, and type II. There are many will recognized causes of CRPS. The leading causes are Trauma and surgery. There is no accepted standard treatment. But main golden therapy is sympathetic blockade, and regional blocks and many additional medical therapeutic agents but in severe refractory form invasive pain management procedures such as plexus nerve blocks or spinal cord stimulator may be needed.

Patients and Methods This is a retrospective study of 50 patients diagnosed and treated as Upper limb CRPS, at Jordan university hospital in the years 2002 - 2007. Files of Diagnosed patients with CRPS were reviewed after approval of IRB committee in the hospital , the patients with CRPS of right upper limb (RUL) were 20 patients ,CRPS of left Upper limb (LUL) were 28 patients , the combined CRPS of both RUL and LUL were 2 Patients
Stellate Ganglion sympathetic blockade was done for all patients as adjuvant in addition to Intra Venous Regional anesthesia blocks by using lateral approach with lidocaine 1% ,5 mls for each block in different consequent sessions in a weekly basis at the same site of affected limb (same CRPS site) The causes , types, risk factors, complications and the outcomes with patients satisfaction in regaining the limb function and good outcome were discussed in this study

Results: The data from 50 patients was analyzed and showed that the CRPS in Right Upper limb was seen in 20 patients (13 males and 7 females) and in left Upper Limb was seen in 28 patients(17 males and 11 females). 2 patients of the 50 had bilateral CRPS.
In the right upper limb, Type 1 were 12 patients and Type 2 were 8 patients. In left Upper Limb type 1 were 19 patients and type 2 were 11 patient.
Duration of symptoms varied between 1- 84 months (average 10 months). Trauma and fracture was the main cause in all patient except one patient came with unknown cause, Smoking was the most present co morbid cause. All patients needed invasive pain management with physiotherapy, All of them received sympathetic TOTAL stellate GANGLION blocks were 461 blocks .Maximum blocks for each patient were 24 blocks and the minimum was 1 patient only. The average blocks for each patient were 9 blocks, Improvement of symptoms and satisfaction of patient was noticed on average between three and ten weeks.
Outcome showed significant improvement in symptoms and patients satisfaction with more than 95% of patients being satisfied. Most patients returned to their work. After therapy and they proceed with normal daily activity.

Conclusion: In CRPS, sympathetic blockade such as stellate ganglion Block and IVRA followed by consequent courses of physiotherapy for certain types of patients during the blockade, will result in improvement in symptoms, and normal physical activity and patient's satisfaction in the great majority of our patients. The safety of Stellate Ganglion Block using Lateral Approach, without significant complications is an adding value for management of Patients with CRPS of upper limb, which can be done in outpatient basis by using lidocaine in small doses.

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ECMO in ICU setting

Prof. Dr. Pınar Zeyneloğlu

Extracorporeal membrane oxygenation (ECMO) is a form of extracorporeal life support that allows the heart and/or lungs time to rest. Criteria for the initiation of ECMO described by the guidelines from Extracorporeal Life Support Organization (ELSO)

include acute severe heart or lung failure with high mortality risk that is potentially reversible and unresponsive to conventional treatment. ECMO circuits are now simpler, safer and there have been continued increases in the number of centers performing ECMO. The most important issues in the last few years for clinicians involved in ECMO includes new applications, ECMO facilitating safe usage of other treatments, timing of initiation, newer equipment with better biocompatibility. ECMO should be performed in centers with the appropriate equipment and expertise. The latest study evaluating ECMO to rescue lung injury in severe ARDS (EOLIA 2018 trial) concludes that the routine use of ECMO among severe ARDS patients is not superior to the use of ECMO as a rescue maneuver in those whose condition has deteriorated further. Other studies investigating ECMO for cardiac arrest, severe cardiogenic shock or failure to wean from cardiopulmonary bypass following cardiac surgery have reported survival rates between 20 to 50 percent of patients. On the other hand some centers are experimenting its usage as a bridge to solid organ transplantation. So to conclude, the use of ECMO will continue to evolve but survival after ECMO depend on many factors and scientific evidence is still lacking.

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Update on Management of Sepsis

Ayman O. Soubani MD (USA)

Sepsis and septic shock are a major cause of mortality and morbidity worldwide. Early recognition and management play a significant role in improving outcomes. Early and adequate fluid resuscitation, hemodynamic support, and broad-spectrumantibiotics are the primary goals of management. Identifying and controlling the source of infection is also critical. There are supportive measures that may be helpful in the management of these patients including glycemic control, corticosteroid therapy and appropriate ventilator management. This presentation provides an update on the guidelines for the early identification and management of patients with sepsis and septic shock and provides an overview of the evidence behind these recommendations.

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Brain Death and Donor management

Prof. Dr. Pınar Zeyneloğlu

The gap between patients awaiting transplantation and those undergoing transplantation widens every year and failure to maintain optimal care of cadaveric donors reduces organ procurement. Brain death is the principal requisite for the donation of organs for transplantation. Since all donors originate from ICUs, determination of brain death and adequate management of the potential brain-death organ donor are essential issues for the intensivists. Brain death determination necessitates irreversible coma from a known cause, brainstem areflexia and apnea. Specific pathophysiologic changes following brain death must be considered for medical optimization. The recommendations for hemodynamic medications, lung protective ventilator management, hormone replacement therapy and thermoregulation support are used within the proactive protocols to ensure optimal preservation and procurement of organs. To conclude, it should be emphasized that timely diagnosis of brain death and vigilant care of the donor is essentially the simultaneous care of multiple recipients.

(281) ARDS: What Works and What Does Not?

Ayman O. Soubani MD (USA)

Acute Respiratory Distress Syndrome (ARDS) was first described around 50 years ago. During this time, great advances were achieved in defining the syndrome and exploring its pathophysiology. However, mortality associated with ARDS remains relatively high. Different pharmacologic and non-pharmacologic approaches to management have been attempted. Many of these therapies such as Aspirin, β2 agonists, statins, keratinocyte growth factor and high frequency oscillatory ventilation have failed to show benefit. However, several ventilatory and supportive approaches have resulted in significant improvement in survival. These include low tidal volume, addition of PEEP to promote alveolar recruitment, fluid restriction, neuromuscular blockade and prone positioning. Also extracorporeal life support may be considered in selected patients. This presentation provides guidelines to the management of ARDS and the evidence behind the different approaches.

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Airway Management in Dental Abscess

Peter GroomMD (UK)

Dental abscess is possibly the most common cause of an anticipated difficult airway presenting acutely to the non-specialist airway anaesthetist. Between 2000 and 2008 the number of hospital admissions for the treatment of dental abscess has doubled because of the increased difficulty accessing NHS dentists in England [1].
The term dental abscess should be discarded as it tends to trivialise rather than emphasise the potential life threatening nature of the condition (patients are still dying from dental abscesses in the UK). It has been suggested that the name 'fascial space infection' should be applied instead as it emphasises the disparateness and severity of the potential airway problems associated with the condition[2].
Fascial space infections are best classified by the tissue planes they involve [3] as the associated airway problems vary accordingly. Sepsis can spread rapidly via tissue planes to involve mutiple spaces and cause severe life threatening local (eg Ludwig's Angina) and distant (eg Mediastinits) pathology.
Airway management of these patients must address airway assessment, choice of the best technique to manage the patient's airway as well as the airway skills required.
The ADAM website (http://adam.liv.ac.uk) has been set up to help the non-specialist airway anaesthetist in this regard.
Nasendoscopy is an invaluable airway assessment tool whilst CT will define the fascial spaces involved. CT can also differentiate between cellulitis and a localised collection as well as diagnosing mediastinitis should it be suspected. Important symptoms and signs to ellicit when assessing a patient with a fascial space infection are;

The degree of sepsis
- Indicates urgency.
- Influences management (sedated versus GA).
- Associated with more complications.

Trismus
- May not be due to pain alone as the TMJ may be involved.

Pharyngeal involvement
- Stridor, dysphagia, drooling and tongue immobility imply distorted airway anatomy.

On the basis of the preoperative assessment it should be possible to decide the best plan to manage the airway by asking oneself the following questions (bearing in mind that all plans have drawbacks as well advantages);
Q1. Which fascial spaces are involved ?
Q2. How compromised is the airway?
Q3. What access to the airway is available to me (nostrils, mouth, trachea) ?
Q4. Which management plan best fits the circumstances?
Q5. Could I make the situation worse ? If so, how?
Even though the source of infection has been removed surgicaly the anaesthetists duty of care continues postoperatively; upper airway oedema may worsen over the first 24-48 hrs post-op. The clinician must formulate plans encompassing:
- Elective intubation and IPPV versus elective extubation.
- Where to manage the patient if extubated; ward vs HDU.
- Accidental extubation on ITU.
- Need for repeat surgical drainage / removal of source(s)
- Microbiology
- Monitoring airway distortion with nasendoscopy imaging etc

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Anesthesia for Laparoscopic Surgery

Hayel Gharaibeh MD (Jordan)

The laparoscopic approach has become a standard of care for many abdominal surgical procedures, advantages derived from laparoscopic surgery are multiple: minimal trauma , less postoperative pain,and quicker recovery.
Anesthetic concerns for patients undergoing laparoscopic surgery differ from those for patients undergoing open abdominal surgery, they include the physiologic effect of the pneumopernitonium absorption of co2 and positioning required for surgery.
Careful choice of the anesthetic technique must be tailored to the type of surgery. general anesthesia using balance anesthesia technique including several intravenous and inhalational agents with the use of muscle relaxants showed a rapid recovery and cardio vascular stability .
Regional anesthesia considered as safe alternative to G.A for outpatient pelvic laparoscopy.
This presentation discuss the path physiological

changes during laparoscopy using co2 for intra abdominal insufflations , out lines various anesthetic technique for general anesthesia discuss recovery and post operative complications of laparoscopic surgery

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Comparative Analysis of Adding Midazolam to Plain Bupivacaine during Wound Infiltration in Abdominal Surgery, Our Experience.

Dr.luai aldaklalah, Manar almomani RN, Ibrahim alshorman RN, Marwan tilfah RN, Wael Bader RN.

Objectives: To study the effect of adding midazolam to plain bupivacaine to wound infiltration in patients undergoing abdominal surgery's under general anesthesia.

Methodology: A prospective double blind randomize study was conducted at princess hayia hospital. 100 patients ASA 1,2 aged between 20_55 years scheduled for elective abdominal surgery under general anesthesia. Patients randomly divided to two groups, group 1(midazolam) group 50 patients received 15 ml plain bupivaciane 0.25% with 30 MCG / kg,midazolam in 2 ml normal salin . Group 2 , 50 patients received 15 ml plan bupivacain 0.25% with 2 ml normal saline . At induction all patients received fentanyl 1mcg/kg, propofol 2 mg/kg, atracurium 0.5 mg/kg. Incidence and severity of pain were recorded by 0_10 pain scale
Results and Discussion: Demographic data of both group's was comparable, this study show s that addition of midazolam to plain bupivacaine prolonged postoperative analgesia, less requirements of opiods in first day after surgery so decrease of side effects of opiods.

Conclusion: Adding midazolam to plain bupivcaine for wound infiltration give good postoperative analgesia and less requirements of opioids.

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Low Dose Intravenous Dexamethasone for Pain Relief after Discectomy

Dr.Wesam Khraisat, Qasim Khamaiseh MD, Arwa Altel,RN, Razan Almurtada RN, Amani Alhadidi RN, Alqroom Rami MD, Doa Alshurbaji MD.

Objectives: To assess if low dose intravenous dexamethasone, mixed with morphine,has any benefit in decreasing pain after discectomy.

Methodology: Inaclinical trial at king husseinmedcal city,100 patients who under went lumbar discectomy. (of both sexes, mean aged 39 years),were divided in 2 equal groups. Only intravenous morphine was injected in group A(n=53) and intravenous morphine in addition to 8 mg intravenous dexamethasone were injected in group B(n=47). Post lumbar discectomy pain was evaluated in both groups.

Results and Discussion: Mean of pain score(VAS)at 6 hours post-operation in groups A and B was 7 and 6.75, resspectively(P>0.05). VAS at 12,18 or 24 hours post-operation in both groups didn't differ significantly(P>0.05).

Conclusion: No any significant reduction of pain post lumbar discectomy was observed after adding 8 mg dexamethasone with morphine. It seems that higher doses of dexamethasone should be used to induce a significant pain reduction.

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Early Versus Late Tracheostomy in ICU

Dr. Qasim Khamaiseh, Wesam Khraisat MD, Samar Abdelkareem Tareef RN, JafaR Dyab

Objectives: This study was conducted to compare the benefit of early percutaneous tracheostomy in critically ill patients versus the late decision, taking into consideration the length of stay, sedation, and surely the final bed cost.

Methodology : All of the prolonged mechanically ventilated patientswho were enrolled in this study over the span of two years(2015-2017) were selected randomly and were separated into two comparative groups. Group A , in which the

decision of early tracheotomy was taken in less than 10 days of ICU stay, and group B in which the decision was late more than 3 weeks. The procedure and all benefits and possible early or late complications were explained in details to the patient's first degree relatives, and the official acceptance consent was signed by them. All coagulopathy conditions, previous neck surgery patients and refusal of the patient's families (for any reason) were excluded from our study.

Results and Discussion: Approximately 10% of our all prolonged mechanically ventilated patients in our Intensive Care Unit (ICU) of King Hussein Hospital need tracheostomy. Better outcome was observed in early decision of tracheostomy: less sedation which leads to more ventilators free-days, shorter ICU stay means more free beds, and reduced long term mortality, and finally less financial cost. Patients and methods: All of the prolonged mechanically ventilated patientswho were enrolled in this study over the span of two years(2015-2017) were selected randomly and were separated into two comparative groups. Group A , in which the decision of early tracheotomy was taken in less than 10 days of ICU stay, and group B in which the decision was late more than 3 weeks. The procedure and all benefits and possible early or late complications were explained in details to the patient's first degree relatives, and the official acceptance consent was signed by them. All coagulopathy conditions, previous neck surgery patients and refusal of the patient's families (for any reason) were excluded from our study. Results: The average of the patients stay in ICU in group A was less in comparison with the late group. Also, sedations, the consciousness, mechanical ventilators free days and finally the cost were less in group A.

Conclusion: As early as the decision of tracheostomy was taken in prolonged mechanically ventilated patients, it was in favor of the patients benefit in terms of early discharge from the ICU and the cost

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Hypothermic Cardiac Surgery; Pros & Cons

Ashraf Fadel Moh'd M.D. (Speaker), Somayia Awwad Al-Tawalbeh R.N., Nancy Alhijazeen R.N., Reah AL Amro R.N., Saja ALwekyan R.N.

Background: Cardiopulmonary bypass (CPB) with hypothermia has been used for different types of open heart surgeries with the aim of reduction of cerebral metabolic rate and brain protection since its first use in 1953 by John Gibbon. Hypothermia has an impact on patients' hemodynamics, hemostasis and recovery, which increases the challenges of the anaesthetist and intensivist.

Objective: To evaluate the effects of deliberate hypothermic CPB (Cardiopulmonary Bypass) on early postoperative period.

Methods: Retrospectively, data from 100 patients (aged between 18-80 years, (average 57.5 years)) who had coronary artery bypass grafting, valvular or combined (coronaries + valve(s)) with utilization of CPB at different degrees of deliberate hypothermia and aortic clamp at Queen Alia Heart Institute in the period between May and September 2016 was analyzed. Inclusion and exclusion criteria were used. Lowest and mean temperatures during CPB and amounts of postoperative blood losses, time of were recorded. Postoperative recovery was evaluated as time to extubation, time of ICU discharge and at hospital discharge. Core temperature was measured by nasopharyngeal probe. According to temperature utilized patients were divided into three groups: Group 1: Mild hypothermic bypass: between 36 ° C - 34 ° Group 2: Moderate between 34 ° C - 30 ° C. Group 3: Deep hypothermic CPB below 30 ° C. Results: Average temperature during CPB was 33 ± 1.3 ° C and ranged from 28 ° C to 36 ° C. Average CPB time was 86 ± 26 minutes, with mean ischemia time of 48 ± 21 minutes. Mild hypothermic CPB was used in 29 patients, moderate hypothermic CPB in 65 patients and deep in 6 patients. Average postoperative blood loss in patients who had mild (Group1) and moderate (Group2) hypothermic CPB was almost the same (around 400 milliliters), whereas patients who had deep hypothermic bypass had an average postoperative blood losses of 560 milliliters. The correlation between temperature and amount of blood loss was not statistically significant (p-value=0.2). Durations of CPB and aortic clamp times were longer in severe hypothermia (97 ± 49 minutes and 67 ± 40 minutes respectively). Deep hypothermic CPB had a significant impact with prolongation of TOMV (Time of Mechanical Ventilation) (p-value=0.016) and on LOICUS (Length of Intensive Care Unit Stay) (p-value=0.001), but not on the LOH (Length of Hospitalization) (p-value=0.13).

Conclusion: Deep hypothermic CPB prolonged the time of mechanical ventilation and the length of stay in intensive care after adult cardiac surgery, but did not influence the overall hospital stay. Deep hypothermic CPB was associated with more blood losses. In our centre moderate hypothermic CPB was most frequently used.

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Age and Gender as Independent Parameters of Speed of Recovery after Adult Open Heart Surgery

Odai Al-Momani M.D.[c] (Speaker), Ashraf Fadel M.D.,Majd Mohammad Al-Shammout R.N., Malik Ayesh Radwan Anagreh R.N, Lena Ahmad Alshawabkah R.N.

Background: Due to the fact that the world population is ageing, the number of elderly patients presenting for open heart surgery is increasing. Age is used in most of the risk scoring models for cardiac surgery. Increasing age is associated with increased incidence of comorbidities that have a serious impact on duration of recovery and convalescence after open heart surgery in adults. Many authors consider female gender as an independent predictor for mortality, morbidity and delayed hospital discharge, explained by their increased incidence of co-morbidities, smaller size of their coronaries and less frequent use of arterial grafts.

Objectives: To evaluate the roles of age and gender on duration of postoperative recovery in adult cardiac surgical patients.

Methods: 100 patients (age range 19-78 years, average 57.5 years) who had undergone coronary artery grafting, heart valve(s) replacement / repair or combined (coronary and valve) surgeries at QAHI (Queen Alia Heart Institute) in 2016, were compared for their postoperative durations of mechanical ventilation, intensive care unit (ICU) stay and hospitalization period. The influence of age as perioperative parameters was studied and statistically analyzed. Patients were divided into three groups: less than 40 years (group 1), between 40-60 years (group 2) and more than 61 years (group 3).

Results: Mean time of mechanical ventilation was 11±8.5 hours. Mean duration of TOMV was almost the same in age group 1 (less than 40 years) and group 2 (40-60 years) as it lasted for 9.5±2 hours and 9.3±4 hours respectively, but longer mean TOMV was seen in group 3 (above 61 years) was noticed (13.8±12.4 hours). Group 3 patients also had longer ICU stay and longer hospitalization period. After applying one way ANOVA we found that the delay in mean TOMV due to old age was statistically significant (p-value=0.03), but age did not influence significantly the LOICUS (p=0.24) and LOH (p=value=0.19). The average length of hospitalization was 5.1±1.2 days. Female patients had significantly increased LOH (p-value=0.007), but their TOMV was little shorter than males probably because smoking prevalence was 11.7% in females and 64.2% in males. When we compared smokers and nonsmokers we found that smokers had increased durations of their TOMV and LOH, although not statistically significant. Gender had no effect on mean TOMV (around 11 hours in both sexes), LOICUS was slightly longer in females (1.7 days in males vs. 1.9 days in females), but the LOH was longer in females (4.9 days in males vs.5.8 days in females).

Conclusion: There was a statistically significant delay in the postoperative recovery in older age patients and female gender is attributed to various anatomical, physiological, social, immunological and pharmacological considerations, along with the increased incidence of co-morbidities in older age (senior) subpopulation.

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Cardiopulmonary Bypass (CPB) Duration as a Determinant for the Need of Inotropes and Vasopressors Post Open Heart Surgery

Qais AlQusus M.D: (Speaker), Ashraf Fadel M.D., Belal Mahmoud Ahmad Al-Sababheh R.N., Ahmad Odeh Mufleh AL-Ramamneh R.N., Loai Abd elnaem Bakhait Al-mherat R.N

Objective: To determine the relation between the duration of cardiopulmonary bypass and the incidence of use of vasopressors and inotropes in patients undergoing coronary artery bypass grafting, valve(s) repair/replacement or combined surgeries(CABG+valves).

Methods: Data from 101 patients who underwent

coronary artery bypass grafting (CABG), valve(s) repair/replacement or combined surgeries (CABG+valves) with the use of cardiopulmonary bypass (CPB) and aortic cross clamp in Queen Alia Heart Institute (QAHI) between March 2015 and June 2016 was analyzed retrospectively. Patients were divided according to the duration of cardiopulmonary bypass (CPB) into two groups: Group 1: less than 120 minutes, and group 2: more than 120 minutes. Number of patients who needed inotropic support at weaning from CPB was determined from each group. Patients who underwent off pump coronary artery bypass grafting (OPCABG) surgery were excluded from the study.

Results: Male patients were 84 (83.2%) and female patients were 17 (16.8%). The patients ranged in age from 19-78 years (average 57.5 years). Average cardiopulmonary bypass (CPB) time was 86±26 minutes. Duration of AXC (Aortic cross clamp time, ischemia time) was 48 ±21 (mean, SD). Group 1 patients (with cardiopulmonary bypass of less than 120 minutes) were 78 (78% of patients), and those whom cardiopulmonary bypass time was more than 2 hours (Group 2) were 23 patients (23%). Inotropic support was needed in 29.8 % of patients in our study. The incidence of use of inotropic support in patients who had CPB duration of less than 2 hours was 33%, while the need of inotropic support in group 2 (with CPB duration of more than 2 hours) was 58%.

Conclusion: Duration of cardiopulmonary bypass is an important determinant of patient's status at weaning from cardiopulmonary bypass. Incidence of patients who required inotropic support increased significantly after two hours of extracorporeal circulation. The shorter the duration of cardiopulmonary bypass was, the less the need of inotropes, and vice versa.

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Is there a Diagnostic Test of Dysarthria for Arabic Speakers?

Dr. Dua Qutishat.

Objectives: Improving the management of adult neuromotor speech disorders in Jordan.

Methodology: 1) Identifying the needs of speech-language pathologists (SLPs) in the management of neuromotor speech disorders in Jordan; 2) Developing and testing the Arabic Frenchay Dysarthria Assessment (AFDA) and 3) AFDA clinical testing.

Results and Discussion: This research consists of three phases. Phase (1): Phase one examines the required research in the field of management of adult neuromuscular dysarthria in Jordan by investigating the Jordanian SLP context and conducting a survey which found that Jordanian SLP's considered formal assessment of dysarthria was the most needed area for development. It provides a background about test development of adult dysarthria assessment. In addition, this phase introduces a critical review of adult dysarthria management and provides a model of developing and evaluating empirical evidence related to the assessment of adult dysarthria. The critical review of 'standardised assessments for adult dysarthria' was conducted at different stages in this study i.e. before, during and after the development of the Speech-Language Pathology Jordanian (SLPJ) survey and the AFDA. Phase (2): This phase formed the development of the AFDA and its validation. The second edition of the Frenchay dysarthria assessment (FDA -2) items were reviewed and some modifications were addressed to bring it up to date and to be appropriate for Arabic speakers. Psychometric properties were investigated to establish face and content validity and feasibility. Phase (3): Phase three established the Arabic norms for the AFDA. In addition, test-retest reliability and inter-rater reliability for the AFDA were established. This work presents the development of a psychometrically robust assessment of dysarthria for use with Arabic speakers.

Conclusion: A comprehensive clinical study investigated the needs of Speech-Language Pathology (SLP) in the field of neuro-motor speech disorders. The study then developed a diagnostic test of dysarthria for Arabic speakers, which considered as an empirical evidence in the field of clinical measurement of dysarthria (Qutishat, 2015).

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The Comparison between Using Ankle Foot Orthosis (AFO) Versus Elastic Wrap Bandaging in Management of Foot Drop in Sub Acute Cerebro- Vascular Accident (CVA)

Da'ad Al-Thabateh PT, Huda Al-Qudah PT,Ala'a Al-Rawabdah PT ,Ahmad Al-Harasis PT ,Ala'a Esam PT,,

Background: CVA affects one side of the body; it leads to abnormal muscle tone, and loss of active range of motion. Weak tibialis anterior muscle estimates foot drop, leads to walking impairment, balance deficit, limited mobility, and delayed initiation and execution of compensatory stepping reaction resulting in gait deviations. AFO is an assistive device required to correct foot drop to clear foot during swing phase of gait. Elastic wrap bandages is used to assist dorsiflexion during gait training.

Objective: To compare between using AFO versus elastic wrap bandaging for management of foot drop in patients with sub acute CVA.

Methodology: This study was done in Royal Medical Services in rehabilitation center for 13 months,38 CVA patients referred to physiotherapy department. All the patients have drop foot, past history of hypertension, Hemi paresis 1/5- 2/5 strength in the left ankle dorsiflexors as measured by manual muscle testing (MMT),the patient was instructed to ambulate 20 meters with cane, two trails of gait training were performed first while wearing AFO, second time using elastic wrap bandages to ankle joint. The patient first ambulates wearing AFO for 20 meters, and then ambulates with elastic wrap functional bandaging at ankle joint for 20 meters. Six sessions program was done two sessions per week. Performance was assist by measuring gait velocity (it is distance covered by meter per time)and cadence (is the rate at which person walk expressed in steps per minute). Assessment for gait velocity and cadence was done every gait trail.

Results: The mean gait velocity was .41 m/s and cadence 68.8 steps/min for CVA patients with AFO .The findings was 60.5% improved for 23 patients , 2 patients not complete this study, 13 patients no improvement.
The mean gait velocity was .44 m/s and cadence 72.7 steps/min for CVA patients with elastic wrape functional bandaging .The findings was 78.9% improved for 30 patients , 2 patients not complete this study, 6 patients no improvement.

Conclusion: The result of this study concludes that using an elastic wrap bandaging was better than using AFO in CVA patients ,greater gain in mobility and motor control allows the ankle elasticity and may provides proprioception feedback to the patient thus to encourage motor control at the ankle. Which is consistent with the literature review, the patient ambulates wearing AFO decrease in the gait velocity and cadence verses to the patient wearing elastic wrap functional bandaging outcome. That's because of improved clearance of foot during swing phase leads to increase efficiency and decreased energy expenditure.

Recommendations: The result of this study recommends that Physiotherapists are advised to use elastic wrap functional bandaging rather than the AFO in treatment of drop foot in CVA patients.

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Treatment of Planter fasciitis using Therapeutic Kinesio-tape

Hasan Yousef Mohammed Almoghrabi, Fayha Nofan Mreyan SW, Rinad M. Al-Nsour PT, Zaid Mohammad Hamad Almofadi PT, Mamoun Ali Abed Khlifat PT

Objectives: To investigate the therapeutic effect of Kinesio-tape on planter fasciitis.

Methodology During the period of Jan 2016 to April 2017, 15 patients (4 male and 11 female) age ranges between 30 and 59 complaining of planter fasciitis were selected randomly from Royal Rehabilitation Center and treated by the therapeutic Kinesio-tape approach, pain was assisted at the first session using the VAS then it was reassessed in between and at the end of the treatment program which consists of 10 session.

Results and Discussion: 40% of all the patient sample were fully relieved from pain at the end of the treatment program with 13% relived only after taking 5 sessions, where as 40% scored their remaining pain as 1 out of 10 with a 90% pain relief, only 7% of the patients have a very slow

relive of their pain with a remaining score of 7 out of ten after completion of the 10th session.

Conclusion: The result of this study concludes that Kinesio-tape has a great effect in the treatment of planter fasciitis.

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Clinical Services in GJU Vision Rehabilitation Centre: a Profile of the Service Users.

YuseQutishat, Dr. Nasim Al Numan, Maisaa Masoud& Sami Shublaq

Objectives: The German Jordanian University (GJU) Vision Rehabilitation Centre (VRC) was established in December 2012 to offer vision rehabilitation services for persons with visual impairment, especially those who have low vision. Through a well-equipped clinic with assessment tools, optical and non-optical aids to meet the needs of the target population. The aim of this study is to provide statistics on the characteristics of the service users including age, diagnosis, and referral pathways since the establishment of the VRC.

Methodology: The services in the VRC are delivered in three steps, interview with the service user, functional vision assessment and provision of optical devices and finally training on the devices or visual strategies and recommendations. Information on the history, assessment results and devices issues are entered systematically on a data base. The total number of service users with low vision selected is 725, who benefited from the VRC services between the periods September 2012 and December 2017.

Results and Discussion: The age distribution results of the study population showed higher percentage to the children group ? 18 years old compared to the group above 18 years old (51%) and (49%) respectively. The main cause of their low vision was retinal diseases (53%). For the referrals, ophthalmologists (38%) were the biggest source of the service users.

Conclusion: The VRC covered the lacking of specialized services offered in vision rehabilitation in Jordan since establishment.

(295)
The Concentrations of Bioelements in the Hair Samples of Jordanian Children Who Stutter

Mazin Alqhazo, Ayat Bani Rashaid

Objectives: This study investigates the levels of 15 bioelements (calcium, copper, chromium, sodium, iron, magnesium, manganese, zinc, cobalt, selenium, molybdenum, vanadium, potassium, boron, and lithium) in the hair species of Jordanian stutterer.

Methods: The subjects of the study included 25 cases of stuttering, and 25 normal children (age and sex matched). The severity of stuttering (low, moderate, and severe) were assessed using Stuttering Severity Instrument, Fourth edition (SSI-4). Hair samples of subjects were cut, washed, dried, physically degraded, hydrolyzed, and analyzed by Inductively Coupled Plasma Mass Spectrometry (ICP-MS).

Results: Results indicated that the levels of bioelements (Calcium, Copper, Chromium, Magnesium, Manganese, Cobalt, Selenium, Molybdenum, Vanadium, Boron, and Lithium) were significantly lesser in the hair samples of stuttering group than the control group.
Conclusion: The findings of the current study could support the use of biochemical analyses as diagnostic biomarker for stuttering.

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Recurrent Miscarriage - Old Problem- New Ideas

Lesley Regan MD (UK)

Women with recurrent pregnancy loss (RPL) represent a highly heterogeneous group of patients. Past studies have investigated systemic endocrine and immunologic mechanisms as potential causes for pregnancy loss in unexplained RPL, while exciting new work has focused on spermatozoal, embryonic, and endometrial characteristics to explain the regulation of implantation and subsequent pregnancy loss. In the clinical and research context, stratification of women with RPL according to whether they have a high probability of pathologic status will help select women who are most appropriate for

further investigation and potential new future treatment and ideas.

(297)
Adolescent Health - An Investment for Our Future

Hani Fawzi MD (UK)

Adolescent health is an investment for future as young population is the corner stone of any step in the way to develop any country at all levels educational, financial and structural. We will highlight the major issues and obstacles encountered during the process of adolescent care and concerns in particular and ultimately the fruitful outcome of such an investment at all levels subsequently.

(298)
Treatment Options for Therapy Resistant Pelvic Pain

H.-R.Tinneberg MD (Germany)

It is estimated that among women of reproductive age up to 25% suffer from chronic pelvic pain cpp with subsequent impact on ability to work as well as on the economy.
The differential diagnosis is quite demanding as disease entities of different disciplines have to be considered. In particular: gynecological aspects such as endometriosis, adenomyosis, chronic inflammation, adhesions, fibroids, cervical stenosis, trapped ovary syndrome and in particular pelvic congestion syndrome (nutcracker syndrome). Further areas to be considered are gastro-intestinal syndrome, interstitial cystitis, muscolo-sceletal pain, entrapment of sacral nerves and psychosomatic disorders among others also after violence experience and/or sexual abuse. Since most gynecological disorders can be treated surgically a thorough diagnostics workup is required often involving recto-vaginal palpation, transvaginal ultrasound and perhaps even MRI. By using MRI additional information can be gained for bowel involvement, in particular in case of infiltration of recto-sigmoid by deep infiltrating endometriosis. Inflammatory bowel disease would also show a specific pattern .
In case of previous pelvic surgery nerve damage or nerve entrapment needs to be considered. In these cases special MRI might also be a useful tool after correlation with segmental dermatome could be demonstrated. Once a proper diagnosis is established laparoscopic dissection of the respective nerve location would allow placement of a multipolar electrode to allow for neuromodulation.
A fairly common cause of therapy resistant pelvic pain is the pelvic congestion syndrome (known as nutcracker syndrome) which is caused by the entrapment of the left renal vein by the superior mesenteric artery. It can be suspected when the diameter of parauterine and/or ovarian veins exceed 7mm which is easily measured by vaginal ultrasound. Treatment by stenting of the renal vein is demonstrated.

(299)
Polycystic Ovary Syndrome, a Frequent Condition with an Inappropriate Name

Philippe Bouchard MD (France)

Most frequent endocrine disorder in women, PCOS is characterized by oligomenorrhea, hyperandrogenism, and ovarian multifollicular development. It is transmitted in an autosomal and dominant manner, and is usually apparent as early as puberty.
Although the genetic trait is clear, the pathophysiology remains poorly understood associating excess androgen production by the ovaries, and a frequent abnormal metabolic profile involving insulin resistance and an increased risk of type 2 diabetes (T2D). Obesity is not a part of the mechanisms, but when present, amplifies androgen production and the risk of Type 2.
The definition relies on the Rotterdam criteria: 2 of the 3 following criteria are sufficient for the diagnosis: oligomenorrhea, signs of androgen excess, and multifollicular ovaries (or eventually increased AMH levels).
Biological results show increased Testosterone and delta 4 androstenedione levels, while estradiol remains in the follicular phase range, prolactin is normal. Importantly, to eliminate pathologies which can mimic PCOS, Testosterone levels should remain below 1 ng/ml (3.5 nmol/L), 17OH-progesterone and urinary cortisol are normal, which eliminate the diagnosis of endocrine tumors, CAH, and Cushing syndrome.
Pathophysiology involves two key components: excess ovarian androgen due to overexpression

of genes involved in androgen synthesis such as DENND1A. In turn androgen excess induces multifollicular development. Insulin excess due to insulin resistance is the second mechanism as suggested by CR Kahn in 1976. High levels of insulin stimulate IGF1 receptors in theca cells and increase androgen production.
A significant metabolic risk persists with an increased risk of T2D (RR 2.5, and 4, in case of excess weight). Liver steatosis (NASH) is now recognized as a significant risk in women with PCOS. Finally, increased risk of cancer and cardiovascular disease have also been recognized. Treatment is simple: combined OCs or anti androgen in case of hirsutism, while infertility treatment associates loss of weight, and eventually Clomiphene citrate/ Letrozole/ Low dose FSH. Pregnancy rate remains excellent in these women who needs to be reassured. Metformine is useful in case of insulin resistance and metabolic syndrome. It is crucial to make sure that these women are followed through a multidisciplinary approach since PCOS is a life- long disorder which may be associated with depression especially when the follow up is erratic and eventually contradictory.

(300)
The diagnostic and practical utility of DNA fragmentation in the management of unexplained and male factor Infertility

Jonathan Ramsay MD (UK)

DNA Fragmentation is increasingly prevalent in the assessment of male fertility. This presentation reviews the methodology of sperm DNA testing, and explores the associations between these measurements and assisted reproductive technological (ART) outcomes. Strategies to improve sperm quality, can now be suggested, and this presentation will review the current research in this new clinical area.

(301)
Human Rights And Women's Health In The 21st Century

Prof. Leseley Regan

In this presentation, Prof. Regan elaborates on the right to health. The right based approach to health has been slow to develop and this gathered momentum post the year 2000. The millennium development goals aimed to deduce maternal mortality rate by 75% between 2000 and 2015 but we have failed as only 45% reduction in MMR has been achieved. The sustainable development goals ensure gender equality and to empower all women and girls. Discrimination against women persists even today. Prof Regan discusses in detail maternal health, maternal mortality and causes of maternal death in the 21st century. He discusses the Marmot review on fair society and healthy lives and the life course approach. Education is central to women's empowerment. Dr. Regan also elaborates on gender based violence. The focus has to be on investing in the health of young people. Family planning is every woman's right. Leading safe choices is a donor funded initiative of RCOG which promotes best practices in post-partum contraception and comprehensive abortion care.

(302)
Education Leadership - a Road Map

Hani Fawzi MD (UK)

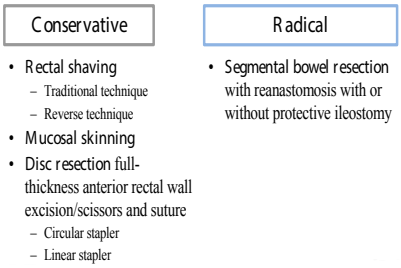
Education is the process of building a personality by which you can lead, dominate and ultimately Having a better future for the nation at all levels, Leadership is an acquired process staring from early childhood at home enhanced with teaching during school time and polished at university with multifactorial impacts from all society shares.
Building a generation backed with education will change everything positively and will lead to a better status and future.

(303)
Surgical Strategies for Deep-Infiltrating-Endometriosis Involving the Bowel

H.-R. Tinneberg MD (Germany)

Deep infiltrating endometriosis (DIE) is a debilitating disease that can destroy organs, is difficult to operate, can recur and has a serious complication rate. As most patients with DIE of the bowel are reluctant to undergo surgery a strategy has to be developed in order to care for all patient's needs.
In order to evaluate the individual risk the surgeon has to consider whether the patient is fertile and wants to become pregnant in the near future,

what are the symptoms and how severe are they, did she have previous surgeries and are other risks present endangering surgery. As diagnosis is quite difficult, imaging like ultrasound (transvaginal and perhaps transrectal, possibly 3D) and MRI might have to support recto-vaginal examination and previous laparoscopy. Malignancy has to be ruled out as even young patients can suffer from rectal cancer. If organ function is not endangered i.e. bowel obstruction, silent kidney etc., conservative treatment using dienogest could be tried.
In case surgery is the best therapeutic option different techniques depending on the extent and severity of the disease are available.



Especially in case of radical surgery i.e. segmental resection complications have to be considered during counselling of the patient including discussing the possibility of a protective ileostomy. Among possible complications De Cicco et al. BJOG 2011 could demonstrate 11% major (6,4% bowel including leakage, fistula and severe obstructions) and 14,7% minor complications (3,6% bowel dysfunction and 8,1% bladder dysfunction).
These complications also reflect the extent of the operation as in extensive infiltration of the pelvis by DIE often needs to remove tissue including autonomous nerves.
Indications for radical treatment are: DIE lesions bigger than 30mm, stenotic lesions, sigmoid lesions and multifocal or multicentric lesions.

(304)
Hyperprolactinemias

Philippe Bouchard MD (France)

In women, Prolactin, a product of pituitary lactotroph cells under the negative control of dopamine, is responsible for mammalian gland differenciation, and lactation. In non-human species prolactin has multiple other functions including ovulation and implantation. Hyperprolactinemia is a very common situation resulting in abnormal pulsatile secretion of Kisspeptin-1, and, GnRH and subsequent hypogonadism. Most hyperprolactinemias are revealed by anovulation with oligomenorrhoea, in women, and hypogonadisms in men.
The mechanisms responsible for hyperprolactinemia are essentially drug induced, or monoclonal pituitary tumors, where they represent more than 40 % of all pituitary tumors. Autopsy data suggest that pituitary adenomas are as frequent as in 12 % of the general population. Other etiologies involve interruption of the dopamine negative control of prolactin secretion, usually by pituitary stalk section, or hypothalamic tumors, and abnormal renal clearance of Prolactin. Finally, once the diagnosis is established by the discovery of Prolactin levels higher than 30 ng/ml on two occasions, the initial investigation is pituitary MRI, even in patients taking neuroleptic drugs, a common cause of hyperprolactinemia, since pituitary microadenoma can be present. Prolactin levels reach 100-200 ng/ml in microadenomas and 250-500 ng/ml in macroadenomas. High prolactin without symptoms and without any tumor visible on the MRI must lead to the research of a big- big prolactin, a benign condition that does not need any treatment. Once the diagnosis of pituitary adenoma is made, the second step is to confirm that prolactin is the only secretory product of the tumor since 20 % of prolactinomas also co-secrete GH. GH and IGFI measurements are therefore mandatory.
Finally, a familial trait must be researched, and plasma calcium must be measured to recognize a putative hyperparathyroidism component of a multiple Type 1 Multiple Endocrine Neoplasia. The treatment is necessary to reestablish an ovulatory environment and/or a normal secretion of estradiol and testosterone. The treatment is straight forward: The Dopamine agonist discovered in the 1970s by Flückiger et al, at Sandoz Pharma, bromocriptine, was shown in clinical trials by Besser in London, and Del Pozo, in Switzerland, to normalize prolactin levels and therefore restore fertility, and as shown by Thorner et al, by a mechanism involving apoptosis, decrease tumor size. Among the drugs available, a D2 dopamine receptor agonist, cabergoline (Dostinex) is the easiest treatment since, in relation to its long half-life of more than 60 h, the drug can be taken once a week. Finally, very few side effects have been reported, in contrast to what is observed in patients with Parkinson disease where daily high

doses are prescribed carrying a significant risk of cardiac valve leakages and addiction syndromes. In most cases, doses of cabergoline can be decreased and the administration can be given at longer intervals after several months of treatment. Pregnancy is always possible, in women with microadenomas, the treatment can be interrupted once pregnancy is diagnosed, while in women with macroadenomas, since the risk of growth of the tumor during pregnancy is significant, a dopaminergic therapy must be continued, either cabergoline or bromocripine. The treatment must be replaced by replacement therapy in women with psychosis since dopaminergic agents can interfere with the neuroleptic treatment. Contraception is needed if no pregnancy is desired, microadenoma can be treated by OCs while macroadenomas must be proposed a progestin administration or an IUD. Hyperprolactinemia is a common condition which has been transformed by the use of dopamine agonists: A true therapeutic revolution.
Surgery must be reserved to cases of resistance to treatments in macroadenomas.

(305)
Insights into Fetal Growth Restriction

Osama Habayeb MD (Jordan)

Fetal growth restriction (FGR) continues to be a major contributor to perinatal morbidity and mortality increasing the risks of adverse health effects throughout life. With developments in Doppler ultrasound and evaluation of fetal biophysical parameters, a significant amount of information on the prenatal evolution of FGR, fetal responses to placental dysfunction and the short- and long-term impacts of the fetal condition has become available. Fetal growth restriction (FGR) due to placental dysfunction has important short- and long-term impacts that may reach into adulthood. Early-onset FGR before 34 weeks' gestation shows a characteristic sequence of responses to placental dysfunction that evolves from the arterial circulation to the venous system and finally to biophysical abnormalities. In this form of FGR safe prolongation of pregnancy is a primary management goal, as gestational age at delivery, birth weight and iatrogenic premature delivery have important impact on short-term and long-term neurodevelopment. Late-onset FGR presents with subtle Doppler and biophysical abnormalities and therefore poses a diagnostic dilemma. Often unrecognized, term FGR contributes to a large proportion of adverse perinatal outcome including an estimated 60% of unexplained still births.
In this talk, the differences between the two phenotype of FGR in the pathophysiology, monitoring requirements, timing of delivery and outcomes will be discussed with special focus on the values & limitations fetal ultrasound in the management of FGR

(306)
Management of Poor Responders in IVF: Is There Anything New?

Aiman Smadi MD (Jordan)

Despite the fact that in the last two decades many suggestions has been made to overcome the issue of poor ovarian response, so far it has been impossible to identify any ecient treatment to improve the ovarian response and the clinical outcome of this group of patients.
The incidence of poor ovarian responders among infertile women has been estimated a 9–24% but according to recent reviews, it seems to have slightly increased.
The limitation in quantifying the incidence of these patients among the infertile population is due to the diculty of a clear definition in literature.
Increasing evidences demonstrate that the number of oocytes retrieved after a controlled ovarian stimulation (COS) greatly influences the clinical outcome in terms of cumulative live birth per started cycle. For this reason, any COS should aim to optimize the number of oocytes according to the ovarian reserve of the patient.
Gonadotrophins cannot compensate for the absence of follicles in the ovary, therefore, COS in poor responders may benefit from the exploitation of multiple follicular waves within a single ovarian cycle, for instance, through luteal phase stimulation or double stimulation (follicular plus luteal) in the same ovarian cycle (DuoStim) protocols.
This presentation will look at the most recent evidence based approach to manage cases of poor ovarian response

(307)
Adenomyosis in Infertility

Khaldoun Khamaiseh MD (Jordan)

Although more common in multiparous women, adenomyosis poses a challenge in women with infertility especially those undergoing ART
It is associated with immunological factors manifesting as an increase in macrophages and natural killer cell density in the endometrium that may affect implantation.
The diagnosis of adenomyosis traditionally made by histopathology of hysterectomy specimens has become possible by new developments of MRI and Ultrasound.
Although there is a great deal of dysregulation and abnormal expression of cytokines and markers for implantation in adenomyosis,the presence of uterine adenomyosis was not shown to affect implantation in an oocyte donation program (vergara et al), however, severity of the condition, elicited in the JZ thickness , more than 12 mm may have effect on implantation.
In patients with recurrent implantation failure, suppressive pretreatment with GnRHa was shown in small series to improve IVF outcome.

(308)
The Hype and Hope of Genomics in Oncology

Sana Al-sohkon MD (Jordan)

In this era of precision medicine- medicine driven by genomic knowledge- , we all try to maximize outcome while reducing toxicity. However, the challenge of implementing genomic "precision" medicine is that it isn't yet precise enough:

- The precise biomarker of efficacy is yet to be defined, despite identifying the genomic target inhibited by the drug.
- The precise "driver" genomic alteration isn't easily identified as compared to "passenger" genomic alteration.
- The precise patient scenario to be given the drug is yet to be defined.
- The precise sequence of options suggested by genomic medicine is yet to be defined.
- The toxicity (both physical & financial) can be significant and issues related to quality of life are important factors to consider when deciding treatment, especially one that can be administered over prolonged period of time.
- We are required to explain why the breakthrough on the media or the predictions of the genetic sequencing may not be realistic options and so manage expectations and indeed act as a firewall against hype.

(309)
Assessment of the Histological Outcomes of Patients with Atypical Squamous Cells of Undetermined Significance on Cervical Pap Smears.

Ehab Al-rayyan MD (Jordan)
Maher maaita,MD ,Kholod ajarmeh,MD , Faisal quda,MD , wlliam hadadin,MD

Objective: To determine the association between atypical squamous cells of undetermined significance (ASCUS) reported on cervical pap smears and the incidence of underlying malignant or pre-malignant genital tract pathology.

Methods: A retrospective study was performed. The files of women who were referred to our colposcopy clinic at King Hussein Medical Centre (KHMC), between August 2008 and August 2012 were studied. 131 patients had smears reported to be atypical squamous cells of undetermined significance (ASCUS). Proper evaluation and follow up was available for 120 patients. This was done by repeating Pap smears, performing colposcopic examination and biopsies results. This included cervical biopsies, endocervical curettage (ECC), and/or endometrial biopsy (EMB) performed when indicated. Other factors which were considered included patients age, parity, presenting symptoms, menopausal status, smoking habits, pregnancy and oral contraceptive use. Data were analyzed and compared between malignant and pre-malignant lesions.
Results: Of 120 patients with ASCUS pap smears, 11 patients (9.2%) were found to have a clinically significant malignant lesions on subsequent histological follow up. This included 5 cases of squamous cell carcinoma of the cervix, 3 cases of endometrial adenocarcinoma, 2 cases of endocervical adenocarcinoma and 1 case of vaginal vault carcinoma.
Thirty-nine patients (32.5%) were found to have pre-malignant lesions. This included 26 cases of low grade squamous intra-epithelial lesions (LSIL), 11 cases of high grade squamous intraepithelial

lesions (HSIL), and 2 cases with adenocarcinoma in situ (ACS).
Woman above the age of 35 years and low parity were more likely to have significant histological abnormalities.

Conclusion: Almost 42% of patients with ASCUS on Pap smear had a substantial risk of having underlying squamous or glandular premaligant or malignant lesions. Therefore we recommend performing colposcopy and biopsies on all these patients especially if they are above the age of 35 years.

Keywords: atypical squamous cells of undetermined significance (ASCUS), Pap smear, atypical glandular cells Pap smear, squamous intra-epithelial lesions, adenocarcinoma in situ (ACS).

(310)
Management of fibroids in resource-limited settings

Dr. Bassam Nusair M.D, Dr Maher Maaita FRCOG, Dr Omar Taso M.D, Dr Anas Almasaleha. Dr. Ibrahim A. Abdelazim, Dr. Mohannad Abu Faza

Purpose of Review: Uterine fibroids (leiomyomas) are the commonest pelvic tumors in women worldwide. The presenting symptoms are variable and can have a devastating impact on the life of women. Most fibroids are asymptomatic. If symptomatic, the symptoms depend on the location and size of the fibroid. Accurate diagnosis is possible when proper diagnostic modalities and experts are available and accessible. Management of fibroids depends on the availability of health care options.

Recent Findings: The purpose of this review is to address the treatment options and extent of the problem in settings where there is scarcity of health resources. This article reveals that limited data are available regarding the prevalence, treatment and extent of the management of uterine fibroids in such settings. Myomectomy is the most common procedure used for fibroids treatment and it can be done during caesarean sections under certain circumstances. Medical treatment and new technologies of fibroids treatment are rarely available for use.

Summary: Management and treatment of fibroids needs continuous efforts in research and innovation into finding cost effective solutions. Media should play a major rule in increasing the awareness of the problem among women. On the other hand, training programs for health care providers, midwifes and gynecologists will help in reducing morbidity and mortality in women with fibroids in resource-limited settings.

Keywords: uterine fibroid, leiomyoma, myomectomy, hysterectomy, resource-limited settings.

(311)
Sexual Dysfunction Prevalence Among Jordanian Females.

Basel Khreisat MD, Maher Maaita FRCOG, Omar Taso MD, Nriman Otoom SN, Bayan Jaafreh SN, Garam Abu Assaf MD

Objective The aim of this research is to determine the prevalence of female sexual dysfunction and to predict the associated risk factors, as the data regarding this issue is rare in Jordan.

Methods A group of women were interviewed by trained staff nurses using detailed questionnaire on several aspects of Female Sexual Dysfunction (FSD) including desire, arousal, lubrication, orgasm, satisfaction and pain disorders. They also underwent sociodemographic investigation. Prevalence of and risk factors of FSD were calculated in different age groups.

Results A total of 470 women aged 32.6+/-9.6 years were included in this study. The most frequent disorders were reported on desire (49%),31.9% were reported on arousal disorders,39.2% on lubrication problems,39.6% on orgasmic problems,43.8% on satisfaction problems and 19.2% on pain disorders. All of which except pain increased with age. Few risk factors were identified apart from age. FSD was found to be significant in women with more than four children(83.3%, $p<0$ .02), and those who had been married for more than 10 years (76.7%, $p<0.02$), in women with chronic medical diseases (76.7%, $p<0.02$), in unemployed women (76.7%, $p<0.02$), and in women who did not use contraception (75.2%,$p<0.005$). No significant correlation was found between FSD and the level

of education p<0.34, or the monthly income of the women p<0.24.

Conclusion The prevalence of female sexual dysfunction in Jordan is 64.7%. Desire disorders are the most prevalent. Age is the most significant risk factor.
Further research is needed with larger and more comprehensive sample, with more risk factors to be investigated.

(312)
An overview of prenatal invasive procedures done at the royal medical services (Jordan) between the years 2013-2017

Dr OmarTaso
Co-authors: Dr Mahe rMaitta

Objectives To study and analyze the methods and indications of invasive prenatal diagnostic procedures, as it is considered one of the most important and informative methods for diagnosis of fetal abnormalities

Methodology This retrospective review was carried out on 943 pregnant women at the fetal medicine unit who underwent invasive procedures at King Hussein Medical Centre, Amman, Jordan in the period between February 2013 and December 2017. This is the only unit for fetal medicine at the Royal Medical Services. Invasive procedures were performed between 11 to 28 weeks gestations and the results were analyzed

Results and Discussion After analysis of the results of amniocentesis and chorionic villous sampling (CVS) , it was found that the indications were as follows: advanced age > 37 {n=300 , 31.8%} family history and history of abnormal offspring {n = 237, 25.1%} abnormal soft tissue marks on ultrasound and abnormal integrated test {n = 200 ,21.2%} abnormal ultrasound findings {n = 206 , 21.8%} .Total number of abnormal karytyping [n = 72 , 7.6%}. The number of amniocentesis {n = 705 , 74.7%} and the number of CVS's {n = 238 , 25.2%}. The miscarriage rate for amniocentesis is 0.3% and for CVS 1.3%.
ConclusionIn our center, the most common method of invasive procedure is amniocentesis followed by CVS. Advanced age is the most common indication for invasive prenatal procedure , and this corresponds to the global results in the centers of fetal medicine, but it is decreasing, followed by the family history of abnormal baby and abnormal offspring, Also an important factors for the work of invasive procedure

(313)
Case presentation of huge uterine fibroid imitating malignancy

Dr. Omar Alelwan, Mai A. Alneimat RN***

Uterine fibroid considered the most common benign gynecologic tumor. Usually the risk factors are overweight or high BMI,high blood pressure, nulliparous, black color and previous family history. The symptoms and signs variant they may present with no complain or abnormal vaginal bleeding, abdominal pain and pressure symptoms.
Huge uterine leiomyoma usually rare and sometimes confused with ovarian or other pelvic tumors.
In our case report we present a 48 years old women known to have hypertension with parity of five two delivered by normal vaginal delivery and three were by a cesarean section with midline incision as she had a previous midline incision when she was 12 years old she had a laparotomy due to internal bleeding due to fallen down. The patient was referred from the general surgery as a case of suspected ovarian tumor. With her recurrent visit to the ER complaining of abdominal pain found in the CT scan to have a huge heterogeneous mass occupying the abdominal cavity. After the investigations and the biopsy, the patient underwent a total abdominal hysterectomy with left salpingo-oophrectomy. The histopathology report confirmed the diagnosis of benign leiomyoma with the measurement of 37*30*17 cm and weighing 10 kg. The patient recovered well after the surgery and went home in the second day after the surgery.

(314)
The Role of Hysteroscopy in Enhancement of Pregnancy Outcomes With Unexplained Recurrent Infertility

Dr. Mothanna Nazmi Nawafleh, Dr. Raed Alsharadga

Objective: to assess the role of hysteroscopy in improving the live-birth rate in patients who were

transferred high quality embryos and repeatedly failed to conceive.

Materials and methods non-randomized trial were done in prince Rashid hospital to evaluate the hysteroscopic findings and the role of hysteroscope in pregnancy outcomes. 150 women who had normal findings and recurrent IVF failure were tested. All patients had primary infertility with normal appearance in uterine cavity on hysterosalpingography. The age of patients were ranged from 22 and 35 years old.

Results fourty seven (47%) patients had abnormal findings in endometrium (uterine polyps with 60%, adhesions with 10%, and uterine anomalies with 30%) and the lesions were corrected prior the procedure. The success rate of pregnancy with normal and abnormal findings was increased from 0% to 29% and from 0% to 53%,respectively, and the rate of implantation was enhanced in patients with normal and abnormal findings from 0% to 8% and from 0% to 35%, respectively.

Conclusion regarding to this study, the evaluation of endometrium by hysteroscope in patients who have recurrent IVF failure is highly recommended before any fertilization procedures to increase the rate of pregnancy outcomes.

(315)
Repetetive zona pillucida splitting (Dysmorphism) causing ICSI procedure failure in an infertile patient after three successive IVF trials, very rare case report

Mitri Rashed, MD. Emad Alsharu, MD. Rima Shatnawi, MLT Shereen Al-Rosan, MLT
IVF Unit at Prince Rashed Ben AL-Hasan Hospital, Irbid, Jordan.

We report this case of a 35 year old previously healthy patient with unexplained infertility of five year duration who was admitted to in vitro fertilization (IVF) and intracytoplasmic sperm injection (ICSI) program in our unit in Prince Rashed Ben Al-Hasan hospital, Irbid, Jordan.
She underwent three successive trials of IVF using different ovarian stimulation protocols over a period of three years since July 2015 and as follows: the first was with long protocol, the second one performed using the flare up agonist (short) protocol, but unfortunately on the day of ova pick up, the eggs were of poor quality with severe dysmorphism due to fractured zona pillucida. The last IVF attempt was undertaken by the antagonist protocol with close monitoring of follicular growth using transvaginal ultrasound measurement and hormonal follow up in blood serum(LH and estradiol levels). Ovulation was triggered by 10,000IU HCG and on day of egg retrieval a strict control of the vacuum pressure applied to rule out the mechanical stress effect during aspiration, but the harvested eggs were fractured too that made the ICSI procedure impossible.
This is a very rare case report that might reflect a defect in the genes encoding the glycoprotein that forms the zona pillucida. And until now this phenomena is poorly studied and understood in the medical literature and needs further investigations to figure out the responsible causes of this splitting and ova lysis in these desperate rarity of patients.

(316)
Modern Facelift High SMAS Facelift with Simultaneous Lip filling

Bryant A. Toth, M.D (USA)

The superficial musculo-aponeurotic system (SMAS) has long been employed as the foundation for facial rejuvenation procedures. While a SMAS dissection has traditionally been confined to below the zygomatic arch, we believe that this does not adequately address changes associated with midfacial aging. Undertaking a SMAS dissection superior to the zygomatic arch allows for a higher arc of rotation of the midface resulting in a more successful midfacial rejuvenation. In this presentation I will describe a high SMAS approach to facial rejuvenation in which the SMAS is elevated vertically and fixed to the deep temporal fascia. Pearls and pitfalls in this technique will be highlighted as well as a discussion of the relevant anatomy of the frontal branch of the facial nerve. We have also become aware that in addition to the effects of gravity, age results in facial soft tissue atrophy both at the skin level and the subcutaneous fat level. Although the High SMAS is helpful in lifting the malar structures back to their youthful location, the volume of tissue is less than what was previously present. This is evident when patient photos are compared with photos taken at a younger age. For several years we have been adding fat to the face simultaneously at the time

of High SMAS facelift with significantly improved results. It also appears that adding fat under stretched skin may improve the overall "take" of the transferred fat. We share our surgical results of this marriage of the High SMAS with simultaneous lipofilling along with lessons learned over the past 30 years in facial rejuvenation.

(317)
Aesthetic considerations in the management of facial trauma.

Mo'taz Alkarmi MD (Jordan)

Unfortunately facial trauma is increasing in number and severity due to many factors. Although the majority are simple and manageable with no sequel but a good number can result in great disfigurement, loss of function, and psychological disturbances disturbances necessitating complex reconstructive procedures that may not always succeed. The etiology, pathology, and various means of reconstruction will be discussed stressing the aesthetic guidelines in management to achieve optimal results.

(318)
Facial Surgery in The Subperiosteal Plane

Bryant A. Toth, M.D (USA)

A simplified approach to subperiosteal midface lifting was developed 30 years ago in an effort to overcome the typical "horizontal pull' achieved with standard facelifting techniques. A vertical vector of pull is achieved which is more effective in restoring the central one-third of the face.
Since 1986 this technique has been used on a variety of patients with mid-facial ptosis or ectropion who were candidates for subperiosteal midface lifting and suture suspension through a lateral brow incision. The plane of dissection is continued over the zygoma and maxilla, with periosteal division to allow for upward stretch of mid-facial tissues. All patients underwent a lateral canthoplasty procedure; approximate 50% of patients underwent a skin /muscle flap lower lid blepharoplasty. The periosteum beneath the sub orbicularis oculi fat is vertically lifted and anchored to the deep temporal fascia with a 3-0 nonabsorbable suture.
Subperiosteal midface lifting results in a long-lasting vertical resuspension of ptotic midfacial tissues and correction of ectropion. Illustrative aesthetic and reconstructive cases are presented with long-term follow-up.
Subperiosteal midface lifting with suspension can elevate ptotic malar soft tissues and can dramatically improve the appearance of the lower eyelid and nasolabial fold areas. In patients with malar ptosis and ectropion, the "overstretched look" seen with lateral facelift techniques can be avoided. There has been a high rate of patient satisfaction with no cases of facial nerve injury or hematoma. Minor complications have included gathering of lateral canthal tissues as well as one case of ectropion and one case of early recurrent malar ptosis.

(319)
Open Rhinoplasty (30) Years' Experience

Ghazi M. Zaben MD (Jordan)

Introduction: Rhinoplasty is the commonest performed plastic surgery procedure

Methodology: 2091 cases are analyzed in 2 groups
11 years with a total of 1169 cases performed in public sector
18 years with a total of 923 cases performed in the private sector
Female to male ratio 6:1
Congenital to traumatic 20:1
Septorhinoplasty versus rhinoplasty 4:6

Results: Good – Excellent 90%
Acceptable 5%
Not satisfied 5% out of them
3% unwilling to redo surgery
2% redo rhinoplasty
Secondary rhinoplasty 6% (done by other surgeons)

Conclusion: Open rhinoplasty is a well-established procedure with high rate of success

(320)
Blepharoplasty: Avoiding Complications in Lower Eyelid Surgery

Bryant A. Toth, M.D(USA)

Blepharoplasty may represent the best example of aesthetic surgery. Historically orbital fat and the lower lid skin has been over-resected and the lower lid skin has not been tightened as a preventative measure resulting in skeletalization. The techniques I use today are different from what I did 20 years ago. Blepharoplasty in the male and female are different operations. We must take into account the anatomy of the skull and brow and the patient's expectations. It is important today to conserve lower eyelid fat whenever possible, identify and address lower lid laxity, correct the tear-trough deformity and eliminate over-resection of the lower lid skin.
We have learned that the same way that we look at the brow in conjunction with the upper lid we now must look at the midface when address the lower lids. We must remember in eyelid surgery that doing more does not guarantee a greater result. In general doing more only opens the door to complications. Listen to the patient, tailor the operation to the needs of the patient and the deformity. Identify where potential problems exist and rather than deal with it later - deal with it at the time of the original procedure.

(322)
Is Cleft Care Improving? Presentation of our cleft unit and centralization of cleft care at the Royal Jordanian Rehabilitation Center

Mohammed Nayef AL-Bdour, Bashar Reyad EL-Momani

Objectives Presentation of our interdisciplinary care and management protocol at the Royal Jordanian Rehabilitation center which started since 1984 and showed dramatic improvement in the quality of care during the last few years with the establishment of our cleft unit.

Methodology presentation of cleft unit work and rejuvenation in total management protocol
Results and Discussion Definitive goals of cleft care is to improve function and eliminate psychosocial disturbances, From interdisciplinary and multidisciplinary care point of view; Cleft teams are comprised of experienced and qualified professionals, this centralization leads to sufficient numbers of patients each year to maintain clinical expertise in management. Cleft teams are comprised of experienced and qualified professionals; the key for successful management of cleft lip deformity is the multidisciplinary team approach and the active cooperation between plastic surgeons, orthodontists and other team members, This centralization in cleft care From interdisciplinary and multidisciplinary care point of view leads to sufficient numbers of patients each year to maintain clinical expertise in management. Treatment plans are implemented on the basis of team recommendations with outcome measures and predictors to audit practice and monitor service quality(through studies) which lead to greater advancement in clinical research and evidence based practice with unified comprehensive database . we present our experience and current practice at the Royal Jordanian Rehabilitation center which were based on successful centralization of cleft lip care with strict commitment to rules of modern cleft multidisciplinary care.

Conclusion Centralization of cleft lip care with multidisciplinary and inter disciplinary decisions between cleft team members had led to the dramatic improvement in total care.

(323)
Photography In Cosmetic Surgery
--*Can we believe what we see?*

Bryant A. Toth, M.D (USA)

Ansel Adams, the great American photographer of the earliest 20th Century is quoted as saying: "Photography, as a powerful medium of expression and communications, offers an infinite variety of perception, interpretation and execution." He was able to capture American beauty, primarily beauty through nature in a black and white format.
Unfortunately, though, photographic manipulation has existed as long as we have have the camera. Edward Steichen has said "Every photograph is a fake from start to finish, a purely impersonal, unmanipulated photograph being practically impossible" Matthew Brady, arguably the father of photojournalism made his name photographing soldiers in the American Civil War. It later became

apparent that he stage battles for photos after they had been fought and manipulated frequently photos thereby deceiving the viewer..
Sir Harold Gillies, the father of British plastic surgery in the late 1950s is quoted as saying: "The advances in plastic surgery in the past 10 years are primarily those of photography." in fact photography may have been the greatest advance with regards to plastic surgery in the past 100 years. Photographs documents not only are preoperative state comparison to the post after state but also allows us to document what we fact have done during the surgical procedure. The photograph maybe in fact is as important to the plastic surgeon as the x-ray is to the orthopedic surgeon.
It is the intent of my presentation to 1.identify the ways photos can be manipulated, 2 demonstrate photomanipulation. 3 critically evaluate photographs of academic journals and 4provides suggestions on how to improve the presentation of photographs in the future.
We as a specialty owe it to ourselves, our colleagues and our patients to maintain the highest of standards and our photographic presentations both in print and in academic journals we certainly can do better then what we currently have been doing.

(324)
Cleft Lip Management Protocol at the Royal Jordanian Rehabilitation Center: Four Years Retrospective Analysis

Khalid Ali El-Maaytah,, Bashar Reyad EL-Momani PDS. Nidal EL-Soud, MD. Alaa Saleem Jumean, MD, Mohammed Nayef AL-Bdour, M.D

Objectives Cleft lip is a common congenital anomaly in our population. It imposes serious psychological and social disturbances in both children and their families. Centralization of cleft lip care led to the great evolution of pre surgical orthodontist management and the continuous rejuvenation in surgical techniques, hence primary cleft lip repair with primary rhinoplasty has become the keystone of successful management. In this study we present our experience and current practice at the Royal Jordanian Rehabilitation center which were based on successful centralization of cleft lip care with strict commitment to rules of modern cleft multidisciplinary care.

Methodology This is a retrospective study of 100 patients with cleft lip/palate who were classified and surgically treated in our cleft unit from January of 2014 to January of 2018. Pre surgical orthopedics (nasoalveolar molding - NAM - and taping) were applied in 98% of the cases. Surgical technique included both Chang Gung cleft lip nasal repair (variant of rotation advancement techniques) and the Anatomic subunit approximation repair(variant of geometric repairs). Both Tajima semi open rhinoplasty and McComb techniques were utilized in primary nasal repair . All surgeries were performed under general endotracheal anesthesia on inpatient basis. All minor revisions for secondary deformities were performed on outpatient basis. Average follow up period is 2 years.

Results and Discussion The geographic distribution of deformity was highest in the north of Jordan followed by the middle and south (48%:44%:8% respectively). The age of the patients at the time of operation ranged between 3 to 6 months (mean age was 3.5 months). Male to female ratio was 72%:28%,ratio of cleft lip:cleft lip/palate (CL:CLP) was 52%:48%, ratio of unilateral to bilateral deformity was 80%:20%, ratio of complete to incomplete deformity was 56%:44%. In unilateral cases ratio of left to right deformity was 65%:35%. The average weight at time of surgery was 5.1 Kg. The most common associated congenital deformity was congenital heart disease (most common was atrial septal defects) in 25% of cases. Associated craniofacial deformities included: hypertelorism in two cases, binder syndrome in two cases, Van der Woude syndrome in one case, type 4 craniofacial cleft in one case and microtia in one case. 8% of cases had positive family history of cleft. Mean operative time was 120 minutes and mean hospitalization period was 36 hours. Morbidity consisted of 3 cases with stich sinuses and minor dehiscence and two cases of pneumonia. There was no mortality. The most common secondary deformities were vertical nostril collapse in 23% of the patients, hypertrophic scarring in 10% of the patients, excess vermillion deformity in 5%, wide prolabium in 2% and vermilion border mismatch in 2%.

Conclusion Centralization of cleft lip care with multidisciplinary and inter disciplinary decisions between cleft team members led to the dramatic

improvement in total care. Achieving near normalcy in the shape and function of the cleft patients is the definitive goal with decreasing the number and complexity of subsequent procedures.

(325)
Distraction of the Midface-

Bryant A. Toth, M.D(USA)

Correction of the midface deformity in syndromic craniosynostosis continues to evolve. The modified Le Fort III osteotomy, introduced and popularized by Tessier, has been the mainstay of midface advancement. However, this conventional Le Fort III advancement has limited forward sagittal movement and is prone to relapse and nonunion. The revolutionary success of Ilizarov's distraction osteogenesis technique [1] was applied to craniofacial surgery by McCarthy's group in 1992[2]. We then went beyond mandibular distraction and applied the concept of distraction osteogenesis to the midface following a Le Fort III osteotomy.[3][4][5] To our knowledge, this was the first reported case of distraction applied to the Le Fort III site. In our original article in 1997 we demonstrated a practical clinical method for midface advancement using a combination of Le Fort III osteotomy and implantation of an internal distraction device. We were able to rapidly advance the midface by modifying Ilizarov's orginal protocol. These modifications include non-preservation of the periosteum during the osteomy, elimination of the latency period, and initiation of distraction intraoperatively which continued rapidly postoperatively. Our goals with this distraction technique were to combat surgical relapse, avoid secondary or tertiary surgery, and improve surgical results. We performed our first Le Fort III advancement with rapid distraction using the internal device in 1994. We now have had over 10 years of experience with this technique and would like to present in this report our long-term outcome.

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Transposition Turnover Adipofacial Flap for Coverage of Dorsal Finger Defects: A Case Report.

Odai M. Sayegh MD, FACS, Khalid El Ma'ayta MD Mohammad Al-Bdour MD Mohammad Al Dabbas MD Hamad Ammar MD

Objectives To discuss the use of single-staged transpositional turnover adipofascial flap for coverage of dorsal finger pathological soft tissue defects, rather than a traumatic defect as described in previous literature.

Methodology We are presenting a 60 year old female with left middle finger soft tissue defect involving the dorsal aspect of distal phalanx; as a result of excision of recurrent fungating granuloma mass. A single case study in Royal Jordanian Rehabilitation Center, JRMS.

Results and Discussion On literature review many flaps are described to treat distal finger skin defects but there were great improvement especially after recognizing the vascular anatomy of subcutaneous tissue as a distinct layer in vascularity (Marty et al, 1984), which allows us to have the confidence to raise such flaps with very minimal morbidity to donor site using only same involved finger for reconstruction. Many authors described a variety of procedures, including local, regional and distant flaps. Cross finger flaps was first described 1978 and it was very reliable flap but the disadvantages include 2 staged operations and both the donor and recipient areas require skin graft and causing morbidity to other finger. Other authors described turn-over adipofscial "random" flaps and the covering subcutaneous tissue is dissected proximal to the defect then turned over distally and covered by a skin graft which provide adequate coverage for distal finger traumatic injuries. Also Unlü et al reported the dorsal adipofascial turnover flap for fingertip amputations. There is another study published 2006 in which they used the transposition adipofascial turnover flap from palmar aspect of finger to cover distal dorsal defects with good aesthetic and functional outcomes. In our case report we used a single staged and rapid procedure to close soft tissue defect of finger for a pathological entity (chronic granuloma). This provided excellent coverage and good wound

healing to resume function of the finger as early as possible. The flap survival was adequate with no morbidity to the donor site.

Conclusion Defects with exposure of underlying skin structures on dorsum of fingers is challenging problem for plastic surgeons as any delay in closure can cause morbidity by affecting hand function . Knowing the vascular anatomy of fingers is very crucial in understanding and developing of those types of flaps. There are arterial branches anastomosing the volar and dorsal arterial networks of the fingers. The vascular anatomy of the subcutaneous tissue of dorsum of fingers reveals the predominance of the vascular network in this layer with regards to the dermal plane. The dermal vascular plexus network at the donor site is adequate for skin survival without its underlying subcutaneous vascular support.

Keywords Pyogenic Granuloma, Adipofascial flap, Fingertip.

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Jigsaw Puzzle Approach to Obstruction in the Urinary Tract

Paddy Dewan MD Australia

The thought of a ***jigsaw puzzle*** conjures up an image of an initial confusion of irregular pieces that gradually come together, revealing a picture that one usually has knowledge of the eventual outcome. And, when one is a young child, the large thick pieces of wood that go to make up an infant's puzzle quickly find their right place, but only after many attempts, later in life such simple puzzles can be put together with our eyes closed. In understanding obstruction in the urinary tract, the puzzles we put together are more like the pictures with thousands of pieces, some with too much "sky" and too much "water". All such large puzzles are a challenge, even to the experienced. The task of assembly is made a little easier by knowing the final outcome, as you do with having the picture on the lid of the jigsaw puzzle box. That image of the "final outcome", rather than a picture on the box in which the pieces come, is "seen" through the experience of previous obstructive urology cases.
In Paediatric Urology, as for the child's jigsaw puzzle, the burden of completing the task is lightened by coming back to the task if intellectual saturation point is reached or recruiting the energy and insights of others by seeking another opinion: as we do with good medical care. How to discover the pieces of the urological puzzle in congenital obstructive uropathy will be explored, including some of the newer procedures and tricks of the trade.
Construction the jigsaw puzzle involves a three-part approach to collection of the pieces of the jigsaw puzzle. Three perspectives help clarify the diagnosis of obstruction: the ***data-point***, the ***spectrum*** on which that point sits; and reflecting on the meaning of that piece of information by ***putting it in the context of the other findings***. The first "leg of the tripod" is the "data-point". Each ***data-point*** for the diagnosis, decision and management in medical care can be likened to a jigsaw puzzle piece, and each data-point is collected is from a ***spectrum;*** that the data-points come from a spectrum is the second leg of the diagnostic tripod. The age of the patient for instance, the weight, the degree of obesity; every feature of the history and examination for that individual, on that day, with that disease may vary, and should be considered as being so variable, but without a sense of confusion, rather an approach that maximises the detail obtained. Once we have collected and put together enough of the data-points from the history of the patient we will have small sections of the jigsaw puzzle picture completed, with other "corners" of the final product stemming from the examination, investigation findings, treatment and outcome. Each investigation gives us a complex set of data-points. For example, the ultrasound of the kidney gives us the renal length, the echo-texture, the pelvic dilatation, the calyceal distension as just some of the examples of data-points to be collected, and like the clinical features, each piece of the jigsaw comes from a spectrum. Each of these observations for any patient, at any time, should be considered as coming from a spectrum. Once you have the pieces of the puzzle, looking at each through the context given by others glues, such as the near normal ultrasound when there is no pain in a patient with a clear history of intermittent PUJ obstruction.

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Advances in Neonatal Surgery

Ahmad AL-Raymoony MD (Jordan)

Over the last decade significant advancements made in both technology and technique that now allow a revolution in surgical approaches to many diseases, and the most complicated neonatal procedures can be performed by using minimally access approach.
Many reports were appeared in the literature describing experience with Minimally access surgery in neonates. These studies show that these procedures are technically feasible and the patients derive the same physiologic benefits and earlier recovery as seen in older children and adults. This includes decreased levels of stress response hormones, shorter ileus, decreased adhesion formation and a lower risk of bowel obstruction in the future. best cosmosic appearance and shorter hospital stays.
the new advanced procedure of both laparoscopic and thoracoscopic surgery are extend from the treatment of common surgical diseases such as appendicitis to complex congenital anomalies like tracheo-esophageal fistula,diaphragmatic hernia and congenital lung disease, minimaly access surgery has made a dramatic impact on the surgical care of infants and children, and future developments promise to further expand the applications and benefits.

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Neonatal Intestinal Obstruction

Hashem Al-Momani MD (Jordan)

Intestinal obstruction is a frequent indication for surgical intervention in newborns. Neonatal intestinal obstruction often manifests itself with a number of cardinal signs including maternal polyhydramnios, bilious vomiting, abdominal distention and failure to pass meconium in 24 hours of life. Although, none of these observations are pathognomic of obstruction, all are consistent with an obstructive phenomenon and should be carefully evaluated
Successful management of neonatal intestinal obstruction demands timely diagnosis and appropriate intervention. Early diagnosis depends largely on the prompt detection of obstructive manifestations and accurate interpretation of radiographic findings and other investigations, leading to definitive treatment, which should always be preceded by appropriate resuscitation. A wide variety of anomalies are responsible for congenital intestinal obstruction in neonates. Artesia and stenosis at different levels of intestine, annular pancreas, malrotation of gut with its different spectrums, meconium diseases, Hirschsprung's disease and Anorectal malformations of varied presentations are among the commonest etiologies. Congenital short left colon syndrome, bands & adhesions, Megacystis microcolon intestinal hypoperistalsis syndrome & others constitute the rarer causes of obstruction. However some kind of incomplete obstructions may not present acutely in the neonatal period, and may be brought to attention at an older age e.g. stenosis, membranes with central hole or malrotation.
Management of intestinal obstruction will almost always be surgical, apart from some notable exceptions. The advents of neonatal intensive care, the multidisciplinary approach, along with the significant advances in neonatal surgery have resulted in the improved survival of newborns with intestinal obstruction.
The morbidity and mortality of cases of intestinal obstruction reported is generally extremely low and mainly determined by the coexistence of other major congenital anomalies, delays in diagnosis and treatment or coexisting medical conditions.

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Disorders of Sexual Development (DSD)

Mohammad Alomari MD (Jordan)

Normal sexual development is the sequential process that successively establishes chromosomal sex, gonadal sex, and phenotypic sex. It is a complicated phenomenon which is incompletely understood. Sexual differentiation begins in utero and ultimately results in a sexually mature individual capable of reproduction.
The establishment of chromosomal sex is the first step in sexual differentiation. The genetic sex is determined at the time of fertilization by the constitution of the sex chromosome (i.e., 46,XX, 46,XY). In the presence of a Y chromosome, testis formation will occur, even in the presence of multiple X chromosomes (e.g., 47,XXY).
Gonadal sex refers to the development of gonadal tissue as an ovary or testis. Genetic information

determines that the undifferentiated, bipotential gonad develops into testis or ovary. In the presence of a Y chromosome, fetal gonads differentiate into testes under the influence of SRY (sex-related gene on the Y chromosome). Many other genes are necessary to sustain testis development, including WT1, SF-1, SOX9, and DAX-1. Ovarian development appears to occur in the absence of testis determining genes.
Phenotypic sex refers to the nature of the internal sex ducts and the external genitalia. The internal sex ducts in the fetus include both Wolffian ducts and Mullerian ducts.
In the male fetus, the Wolffian ducts become the epididymis, seminal vesicles, and vas deferens.
Development of the Wolffian structures requires the presence of testosterone, secreted by fetal testicular Leydig cells. In its absence, the Wolffian ducts regress. The Mullerian ducts differentiate into the fallopian tubes, uterus, and posterior two-thirds of the vagina. In the presence of anti-Mullerian hormone (AMH), secreted by fetal testicular Sertoli cells, the Mullerian ducts regress. The external genitalia in male and female fetuses are identical until 8 weeks' gestation. In the presence of androgen, most specifically dihydrotestosterone (DHT), the external genitalia differentiate into a penis and scrotum. The urogenital sinus develops into the prostate and prostatic urethra in males and the urethra and anterior one-third of the vagina in the female. The genital tubercle develops into the glans penis in the male and the clitoris in the female. The urogenital swelling becomes the scrotum in males, the labia majora in females, and the urethral folds fuse to form the shaft of the penis and the urethra in males, the labia minora in females. In the absence of androgen, the external genitalia appear female.

(331)
Duplex Anomalies in The Pediatric Renal Tract.

Paddy Dewan MD(Australia)

Upper renal tract duplication is seen in 2% of the population and is often uncomplicated. However, there is an increased risk of secondary pathology, including reflux into the lower pole, and ectopia or an associated ureterocele subtending the upper pole that is often dysplastic in accordance with the Weigert-Meyer-Stephens Rule.
There are various options for dealing with renal duplication associated with secondary pathology, with the interventions still debated, a debate that has been complicated by the advent of laparoscopy. Nevertheless, the principles of nephron preservation and prevention of illness still prevail, such that partial or total nephrectomy may be appropriate, as might be lower tact surgery, depending on the details of the anatomy.
However, renal tract duplication is not limited to the kidney and ureter. Bladder, urethral and penile duplication can be seen, but are rare. Examples, the classification and intervention options are many, and should be case specific in their development and instigation, some examples of which will be presented.

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Posterior Urethral Valves – a misnomer

Paddy Dewan MD(Australia)

What is the nature of the pathology that causes posterior urethral obstruction in boys?
Correlation of radiological images and endoscopy recordings to review the anatomy of posterior urethra obstruction in boys presenting with bladder outflow obstruction, together with re-evaluation of the historical literature reveals previous confusion about terminology for bulbar and posterior urethral lesions. While recognizing the major contribution of Young Hampton Young in the century, for starting the debate about the pathology of posterior urethra obstruction, his classification is not accurate.
Nearly 100's ago, in 1919, Hugh Hampton Young developed a six-part classification of posterior urethral obstruction based on 12 cases, a conclusion reached with little help from radiology, and only rudimentary endoscopy, and, obviously, no endoscopic recordings. Subsequently, improved radiology, correlated with endoscopic recordings of the un-instrumented infant male urethra, shows that the obstruction is by a membrane with a posterior defect and paramedian reinforcements that is located below the top end of the external sphincter. Importantly, the anomaly can have variable morphological expression, as should be expected for all congenital anomalies, which is not well recognized, nor is it well recognized that the endoscopic appearance can be related to a variable radiological appearance of not only the urethra, but the bladder and upper tracts. These phenomena are explained.

The review clearly shows that there should be a change of the terminology to be consistent with the anatomy; the recommended terminology in Congenital Obstructive Posterior Urethral membrane - ***COPUM***

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Neurogenic Bladder in Pediatrics

Majed Sarayrah, MD, FACS

The management of children with neurogenic bladder is complex.
It demands a multidisciplinary team approach because of the diversity of problems created by lower urinary tract dysfunction, difficulty in achieving bowel control, psychologic disturbances, and serious associated orthopedic and neurologic anomalies. In neonates and infants, the objectives of treatment are to preserve renal function and to prevent urinary tract infection, but in older children the achievement of urinary continence becomes important.
We reviewed all the cases of N.B since the inception of Queen Rania Hospital, 2010. i.e. seven years, together with the nephrology team we tried to limit the indication of Augmentation cystoplasty and continent cathetrizable conduit. Clear Intermittent Catheterization and other pharmacological agents are very important if the patients follow the medical instructions.

(334)
A Novel Nonelectrosurgical Technique for Incising the Pylorus in Laparoscopic Pyloromyotomy.

Ziad ABataineh, Bovotny NM

Objectives Since the loss of the protected arthrotomy knife several years ago, pediatric surgeons have struggled to find a safe, reliable, and inexpensive way to incise the pyloric serosa before spreading the muscle. The most widely accepted method of cutting the serosa is with electrocautery, although some still question its safety. We introduce a novel technique of incising the serosa with a percutaneously inserted needle without the use of electrocautery.

Methodology In this case series, we describe the experience of a single surgeon with a novel technique of incising the serosa. A retrospective chart review was conducted between January 2012 and September of 2015. In 6 patients, the serosal incision on the pylorus was made using a percutaneously inserted 18 gauge needle to cut the serosa and the superficial hypertrophied muscle fibers. As the body of the needle is not sharp, it protects the mucosa from being lacerated as the incision is carried out given a fixed depth of cut.

Results and Discussion The last 6 patients with hypertrophic pyloric stenosis underwent this technique. There were no conversions to open. In addition, there were no perforations and no complications related to the alteration in technique.

Conclusion Although many manufacturers pursue both disposable and nondisposable solutions to this problem, we believe this is a safe, reliable, and very inexpensive solution to this simple problem.

Keywords Nonelectrosurgical, Pylorus, Laparoscopic Pyloromyotomy.

(335)
Tubularized incised plate urethroplasty

Mohammad Dajaa MD,AmerAlibrahim MD, Gaith Khasawneh MD,Ahmad Abo gora MD,Waseem Al-mefleh MD.

Objective:This study was conducted to evaluate patients with distal penile hypospadias were treated by tabularized incised plate urethroplasty, reporting our success rate, complications and cosmetic results.

Method: A retrospective study was done at prince Rashid bin alhassan hospital from June 2011 to Apri l2013. 83 cases with distal penile hypospadias underwent tabularized incised plate urethroplasy for the first time .patients age ranged from 2-8 years, mean age was 4 years.

Results: All patients were followed up 24 months after surgery .69 patients (83%) had excellent functional and cosmetic results without any complications.
Complications were seen in 14 patient ,with urethrocatanous fistula in 8 cases (10%) , meatal stenosis in 2 (2.4 %),complete disruption of the

glans in 1 case (1.2%) and penile rotation seen in 3 patients (3.6%).
Conclusion: Tabularized incised plate urethroplasty has become one of the best choices for distal penile hypospadias repair, with excellent functional neourethra, excellent glans and meatus shape and low complications rate.

Key words: hypospadias, cosmesis, urethroplasty.
Introduction:

(336)
Breast Cancer Surgery from Radical mastectomy to Extreme Conservation

Yazan Masannat MD (UK)

Randomized Controlled Trials with long term follow up have confirmed non-inferior long-term survival when comparing Breast Conserving Surgery and Radiotherapy with mastectomy. These however excluded tumors greater than 3-4cm, locally advanced, centrally positioned, and MFMCBC. BCS practice has evolved since, with the combination of Oncoplastic techniques and the increased usage of neoadjuvant treatments to downstage the primary tumor, BCS is now appropriate in many patients where previously mastectomy would have been necessary.
Oncoplastic techniques are now used to allow BCS for tumors which have relatively high tumor/breast size ratio, central tumors and even MFMCBC. For central tumors, the reason for mastectomy was based on cosmesis, but now we can achieve cosmetically acceptable results with even a simple central wide local excision, or the more complex level 2 techniques such as wise pattern mammoplasty (with Nipple Sacrifice) or a Grisotti Flap that will give even more superior results in selected cases when compared to mastectomy and Immediate reconstruction. As for Breast conservation with Tumours larger that 3 cm has already been proven to be oncologically with acceptable cosmetic results with the different Volume replacement and Volume Displacement Techniques.
Multifocal multicentric breast cancer (MFMCBC) has traditionally been considered a contraindication to breast conserving surgery (BCS) due to concerns regarding local control, disease recurrence and oncological safety. However, the evidence supporting this practice is limited and increasingly, many breast surgeons are advocating breast conservation in selected cases. This presentation will look in more detail on the current evidence on the role which surgery has on prognosis in MFMCBC, and shows that when technically feasible, the option of breast conservation is oncologicallysafe.

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Local recurrence of breast cancer

Ali Oboos MD (Jordan)
Recurrence of breast cancer

The lecture will define what is recurrence and differentiate it from new primary tumor.
The risk factors especially the intrinsic aggressive biology will be discussed.
The prognostic factors will be analyzed which is related in addition to its biology the time interval.
Treatment is in addition to surgery could be chemotherapy, biological, hormonal or radiotherapy.
Recurrence is not one modularity and this will reflect certainly on the prognosis and the way of treatment.

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Oncological consideration when planning Immediate Breast Reconstruction

Yazan Masannat MD (UK)

Immediate Breast Reconstruction has been gaining popularity in the last decade with increased rates as it is considered oncologically safe and at the same time offers superior aesthetic result when compared to delayed reconstruction. But there are few oncological considerations that needs to be thought of in advance to decrease the chances of failure and complications.
Skin sparing and local recurrence is the first point to be addressed. Large series have shown the non-inferiority of IBR with skin sparing and skin reducing mastectomy in term of local recurrence rate and survival. Nipple preservation is also gaining popularity thought the data is not as robust. Always there should be consideration of the proximity of the tumour/s to the skin and nipple areola complex also keeping in mind patients' lifestyle habits and co-morbidities that can affect skin flap viability, especially BMI, smoking and diabetes.

Adjuvant therapies are also important to consider when planning the surgery and considering the different types of reconstruction to include Implant/Expander based reconstruction +/- ADM, Free Flaps (DIEPs, SIEAs, TUGs, etc…), Pedicled flaps (LD) +/- Implants. We will visit the different indications for chest wall radiotherapy postoperatively and how that might affect the choice of reconstruction as many will be reluctant to offer reconstruction while others do, and in the centres that do offer expander/implant-based reconstruction is there and types of expanders that can potentially interfere with radiotherapy. Chemotherapy and targeted treatments such as Herceptin can potentially be delayed if there are complications with IBR, while if administered in the Neo-Adjuvant setting is there potentially higher complication rate for certain types of reconstruction so it is important to balance all these probabilities when planning IBR.

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Pleomorphic Lobular Carcinoma in Situ, B3 or B5a

Yazan Masannat MD (UK)

Aims: Pleomorphic lobular carcinoma in situ (PLCIS) is a relatively newly described pathological lesion that is distinguished from classical LCIS by its large pleomorphic nuclei. The lesion is uncommon and its appropriate management has been debated. The aim of this study is to review data from a large series of PLCIS to examine its natural history in order to guide management plans.

Materials and Methods: Comprehensive pathology data were collected from two cohorts; one from a UK multicentre audit and the other a series of PLCIS cases identified from within the GLACIER study cohort. 179 cases were identified of whom 176 had enough data for analysis.

Results: Out of these 176 cases, 130 had invasive disease associated with PLCIS, the majority being of lobular type (classical and/or pleomorphic). A high incidence of histological grade 2 and 3 invasive cancers was noted with a predominance of ER positive and HER-2 negative malignancy. When PLCIS was the most significant finding on diagnostic biopsy the upgrade to invasive disease on excision was 31.8%, which is higher than pooled data for classical LCIS and DCIS.

Conclusion: The older age at presentation, high grade of upgarde to invasive cancer, common association with higher grade tumours suggest that PLCIS is an aggressive form of insitu disease. These findings support the view that PLCIS is a more aggressive form of lobular in situ neoplasia and supports the tendency to treat akin to DCIS.

(341)
Current Operative Management of Breast Cancer

Omar Abuelaish MD (Jordan)

Surgery remain one of the The most important modality in treating breast cancer, focused breast cancer operation is increasingly adopted by many surgeon due to the use of adjuvant radiotherapy , advanced chemotherapeutic agents and advances in molecular diagnosis and therapies .so surgical management has shifted from more extensive and highly morbid procedure to the modern concept obtaining the best possible cosmetic result with the appropriate oncological resection, these improvements is continuously pushing the therapeutic intervention into becoming more targeted, focused and less morbid.

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Endoscopic Anatomy of the Ear

Livio Presutti MD (Italy)

The primary starting point for every surgeon is certainly the in-depth knowledge of the anatomical region to approach. This is even more important for the otosurgeon, because the ear is an area with a really complex anatomy.
There are three key points that underline the importance to understand the anatomy of the ear:

1. the first is the presence of many noble structures like facial nerve or carotid artery
2. the second is the knowledge of the recesses where the pathology can spread
3. the third is the description of the ventilation routes in the tympanic cavity
4. Endoscope allows to explore a wider part of the tympanic cavity, especially with the angled lenses, and the magnification of the image provides more anatomical details. The possibility to look behind the corner is very helpful to control spreading routes of pathologies like cholesteatoma, in relationship to anatomical variations as well.

This lecture is a review of the state-of-art of endoscopic middle ear anatomy with description of every compartment, with particular attention to ventilation pathways and middle ear folds.
An important additional concept is the possibility to compare radiological findings and endoscopic exploration in order to better understand the relationship between the main anatomical structures and to study the morphological variations in deep.
This overview on anatomy is also mandatory to start the training program in endoscopic ear surgery and to be able to treat every kind of pathology with this innovative technique.

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Endoscopic Treatment of Cholesteatoma

Livio Presutti MD (Italy)

Surgical treatment of cholesteatoma remains controversial. There has been a great improvement of endoscopic instrumentations and techniques over the last few ears, and the anatomical knowledge of the middle and inner ear has become more clear due to endoscopic exploration of this region, especially with angled lenses. Our opinion is that most of the spaces considered to be difficult to access with a microscopic technique could be visualized easily by endoscope-assisted surgery.
The aim of this lecture is to give an overview of the patients treated at our institution (Modena University Hospital) by the mean of exclusive endoscopic technique or combined micro-endoscopic technique for treatment of cholesteatoma.
The mean indications to exclusive transcanal endoscopic ear surgery are the following: attic cholesteatoma, meso-epitympanic cholesteatoma, retrotympanic cholesteatoma, epitympanic and antral cholesteatoma with sclerotic mastoid. Contraindications to exclusive endopscopic technique are represented by stenotic ear canal, massive mastoid involvement and lateral semicircular canal's fistula.
Congenital cholesteatoma can also be treated with the endoscopic approach, because this technique provides mastoid and ossicular chain preservation in many cases, and is characterized by better aesthetic results in children.
Moreover, regarding lateral skull base extension of cholesteatoma, the endoscope represent a very useful additional tool in combination with classical microscopic approaches, or even exclusively (like for suprageniculate approach or infracochlear approach), to obtain the radical of excision of the pathology and to have good functional results, especially for facial nerve outcomes.

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CSF Leak Repair: Our Experience

Shawakfah Nabil MD (Jordan)

Endoscopic repair is considered the treatment of choice in cerebrospinal fluid (CSF) rhinorrhoea, The aim of this presentation is to show our experience in King Hussain Medical Center in managing many cases of CSF rhinorrhoea, with different techniques and by using several graft materials.
Outcomes, advantages and disadvantages of every technique will be discussed.

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The Value of the Endoscope In Stapes Revision Surgery

Livio Presutti MD (Italy)

Given the endoscope's wide angle of view and improved visualization of structures parallel to the microscope, it's not surprising that there are several emerging reports in literature describing the role of endoscopy in stapes procedures. As regards operating microscope, it provides a very-good quality magnified image in a straight line, but the surgeon's field of view is limited to the narrowest segment of the ear canal. In fact, during traditional stapedotomy, removal of posterior bony wall of EAC and manipulation of the chorda is necessary to obtain a good exposition of the oval window niche. Another important consideration is that with the microscope, the surgeon cannot directly see the anterior crus of the stapes, and so the removal is partially blinded. On the contrary, the chorda tympani is less manipulated during endoscopic approach and there is a smaller amount of external auditory canal posterior bony wall removal. So the risk for alteration of the sense of taste is lower.
Moreover, endoscope provides a better visualization of the hidden anterior crus and oval window niche. The magnification of the anatomical structures and the possibility to change from a close-up to a

wide-angle view simply by moving the instrument guarantee a better management of some anatomical variations, like facial nerve dehiscence. The ability to look behind the corner with angled endoscopes and the more precisely anatomical study of the structures allows to understand particular cases of stapes malformation and to perform a safe stapes surgery avoiding injury to facial nerve or other noble structures.
Indications to endoscopic stapedotomy or stapedectomy are the same as for the microscopic approach. Endoscopic surgery is particularly suggested in cases of suspected stapes malformation and in revision surgery. Indeed, during a surgical procedure after failure of primary stapedotomy, is very important to put the endoscope inside the tympanic cavity to understand better the anatomical and post-surgical pattern and to decide how to proceed. The management of incus partial necrosis or the removal and repositioning of the prosthesis are easier and allow the surgeon to be sure about the correct execution of the approach, providing better functional results.

(347)
TORS for OSA: Up to Date

Claudio Vicini MD (Italy)

Trans Oral Robotic Surgery for Obstructive Sleep Apnea was introduced on 2008 for addressing tongue base obstruction. During the last 10 years more than 45 papers in peer reviewed journals were published, 4 dedicated chapters in TORS books and a specific monography. Three sistematic revues are included.
Our group completed in the same time more tha 550 overall TORS; about 300 were TORS for OSA. According to this experience the following conclusion may be drawn:

1. TORS for OSA is not any more an experimental procedure
2. Results are encouraging also in low volume Centers
3. Complication rate is fairly low
4. Most of the cases were included in multilevel procedures
5. The palate step (UPPP, ESP, BRP) may affect the final outcome
6. Tracheostomy is required in selected cases
7. Long term data are still missing in worldwide literature

Summarising: TORS for OSA may be included among the many surgeries devised for tongue collapse and obstruction. Further studies are required to define the specific role of this technique vs other tongue options: Coblation, Hypoglossal Nerve Stimulation.

(348) Surgical Pearls in Head and Neck Surgery

Omar AlSaraireh MD (Jordan)

The prognosis of the head and neck cancer patients drops significantly after involvement of the cervical lymph node with metastasis. Control of the neck metastasis is of paramount importance in the management of neck metastasis. Since the introduction of radical neck dissection by Crile on 1906, many refining steps were introduced to reduce the morbidity and improve the control of disease . Many times the head and neck surgeon face the need for some sort of reconstruction during management of head and neck cancer, pectoralis major flap with or without skin constitutes the hoarse work flap for the head and neck reconstruction.
The purpose of my presentation is to present some of surgical tips that make neck dissection and raising the pectoralis major flap more easy and fast.

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OSA Surgery Failure: How to Address?

Claudio Vicini MD (Italy)

Sleep Apnea Surgery must register a not really high but anyway significant amount of failures, expecially in long term follow up. How to address the failed cases?
Perceived failures mai include residual o recurrent snoring, and /or residual or recurrent witness apneas or sleeppiness.
In our failures work up a sleep study is the first step for defining a real failure. Most of the failed cases are usually mild positional osas.
In our hands Sleep Endoscopy proved to be the best available tool for locating the residual obstruction. Failure may arises from a residual palate or tongue base collapse; more unusual a combination or an isulated epiglottis collapse. Most of the available options in revision therapy are the same as in primary approach.

CPAP is rarely accepted but may be offered. The most common back up options in our hands proved to be MADS or positional therapy.
Revision surgery is an alternative choice.

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New Trends in TORS for Cancer

Claudio Vicini MD (Italy)

Trans Oral Robotic Surgery was introduced in 2005 as a very advanced tool for minimally invasive endoscopical approach to upper airways cancer. Nowdays it became the golden standard for oropharyngeal cancer, HPV positive as well negative, mostly but not exclusively in T1-T2 stages. Monomodality in margin negative resections and radiotherapy "de-escalation" in possibly close or positive margins are remarkable features.
Compared to CO2 laser supraglottic laringectomy, TORS proved to be easier and quicker.
TORS offered a new opportunity to remove huge parapharyngeal masses through the mouth as never in the past. In mild to moderate resections no reconstruction is required. In extended resections free flaps are available also in TORS setting.
NBI intraoperative use is one of the options in improving safe margins resection.
Enhanced reality would be a near future opportunity to identify vascular and neural structures to spare.

(351)
Approach to The Vocal Fold Paralysis

Ahmad Issa Al Omari MD (Jordan)

Introduction: Vocal fold paresis and paralysis result from abnormal nerve input to the voice box muscles (laryngeal muscles). Paralysis is the total interruption of nerve impulse, resulting in no movement; paresis is the partial interruption of nerve impulse, resulting in weak or abnormal motion of laryngeal muscles; laryngeal synkinesis is an aberrant re-innervation of one vocal fold, following paralysis of the recurrent laryngeal nerve which results in excessive adduction
Paresis/paralysis can happen at any age, from birth to advanced age, which can result from multiple causes, injury during surgery: complication from endotracheal intubation: blunt neck or chest trauma: Tumors of the skull base, neck, and chest: Viral infections. There are multiple surgical options to treat vocal fold immobility based of the position of the folds and if it is uni or bilateral involvement.

Methodology: We are going to discuss a trans-oral minimal invasive technique in treating uni or bilateral vocal cord paralysis, fixation or synkenesis based of the patients presenting symptoms. These techniques are Injection thyroplasty, Transoral medialization thyroplasty, transoral partial arytenoidectomy with true focal fold lateralization in the treatment of the bilateral vocal fold immobility (BVFI), and Post cricoid advancement flap in treating posterior glottis stenosis.

Result and Conclusion: These minimal invasive procedures are safe, effective, and well-tolerated choice for the laryngeal reconstruction due to uni or bilateral true vocal cord paralysis or fixation. It can be performed by laryngologists familiar with laryngeal microsurgery with commonly available laryngeal instruments and a scanning CO2 laser.

Key words: Vocal fold paralysis, Synkenesis, laryngeal reconstruction, Transoral laser.

(352)
How to Avoid Complications in FESS

Sufian AlNawaiseh MD (Jordan)

Functional Endoscopic Sinus Surgery (FESS) is among the most commonly performed surgeries on daily basis in our hospitals for various conditions including simple and complicated cases, some cases can be done by junior surgeons while revision complicated cases requires more experienced surgeons taking into considerations the complicated anatomy of the skull base and the paranasal sinuses.

Preoperative measures: Know your-self: Surgical skills, Appropriate instruments, including optical aids, Explicit knowledge of the surgical anatomy.
Know your patient: Appropriate history ("bleeding" risk factors, antiplatelet medication), Preoperative Treatment, Adequate preoperative imaging,

Intraoperative measures:
Anesthesia ,Adjusting the operative strategy to the

specific goal,Hemostatic measures, Intraoperative image guidance systems ,Closure of the surgical defect

Postoperative measures: Anti-infectious treatment ,Lumbar drain ((when needed)) ,Nasal lavage,, ointments,, crusts removal.

Conclusions: Do as little as possible and as much as necessary (Wigand 1990).– judge thedisease and it's treatment options . Staging is mandatory – symptoms score, CT score , endoscopic score,histopathologic scoreOperate patients to relief symptoms, do not operate CT scans! If complications occur you have to be able to manage them (alone or team)The most serious complications belong to the most experienced surgeons(Draf)!.

(353)
Approach to Laryngeal Masses

Amjed Tarifi MD (Jordan)

Introduction: Many types of pathologies can affect the larynx; neoplasms are one of them.

Methodology: Different cases of laryngeal masses are presented, including the presentation, physical examination, appropriate investigations, and management. Various benign and malignant cases are discussed.

Results: Benign lesions will have conservative approach. Medical management, voice therapy, and limited surgery are options. For malignant neoplasms, more aggressive therapy is needed, starting with staging, with subsequent surgery, radiation therapy, chemotherapy, or combination.

Conclusion: Appropriate management of laryngeal masses needs thorough history, physical examination, and proper work-up.

Keywords: Larynx, Benign, Malignant.

(354)
Comparison of Low and High Computed Tomography Radiation Dose in Sinusitis

Raed Akayleh

Objectives The aim of this paper was to compare the quality of CT scan images using low dose CT compared with standard dose CT in patients with suspected sinusitis.

Methodology Sixty patients aged between 6 and 25years were enrolled in this study. CT was indicated based on suspicion of sinusitis; patients were divided randomly into 2 groups. In the first group the standard CT protocol was obtained using 451 mAs in the axial projection and 503 mAs in the coronal projection. In the second group, patients were exposed to 16 mAs in the axial projection and 23 mAs in the coronal projection. Comparison of image quality was performed between the two groups based on certain parameters.

Results and Discussion Images obtained using low mAs value showed comparable image quality to standard mAs protocol in coronal projection with minimum noise. In axial projection, the low mAs protocol, image quality was optimal in 73% plotted against the standard protocol.

Conclusion Low dose sinuses CT are as effective as high dose computed tomography in all patients with coronal projections and in 96.6% of patients in axial projection. Low dose sinuses computed tomography is highly recommended in the assessment of sinusitis.

(355)
Horizontal canal benign paroxysmal positional vertigo with canal conversion; case presentation

Sawsan Abuzaid MD, Eyad Abu Nahleh MD**

Objective: Benign paroxysmal positional vertigo (BPPV) is considered one of the most common causes of vertigo in clinical practice. It is caused by otoliths that are either free-floating in the inner ear semicircular canals (canalithiasis theory) or from adherent otolith in the cupula of the semicircular canals (cupulithiasis theory). BPPV

presents with vertigo that is provoked by certain changes in head position and is characterized by intense, positional provoked vertigo. Although the condition is termed "benign," the clinical presentation can be severe and incapacitating in certain situations. The most commonly involved canal is the posterior semicircular canal. Recently, a new entity of BPPV, differing from that mentioned above has been recognized. This new entity is known as horizontal canal (HC)-BPPV. Although BPPV due to horizontal canal involvement is 3% to 8% of all BPPV patients, HC-BPPV is not rare. Clinical presentation: we present 57 year old patient who was diagnosed to have horizontal canal BPPV and was treated by different otolith repositioning maneuvers and complicated by canal conversion and finally successfully treated with complete resolution of symptoms.
Conclusion: The importance of the follow up and retesting of patients with benign paroxysmal positional vertigo, who have undergone otolith repositioning maneuvers.

(356)
Global Trends Healthcare Workforce Development: The Transformative Agenda for Pharmacy

Prof. Ian Bates Pharm.D. (UK)

As the global professional leadership body representing over 4 million pharmacists and pharmaceutical scientists worldwide, the International Pharmaceutical Federation (FIP) is developing a transformative roadmap that describes the desired milestones for developing the pharmacy workforce and education. This work builds on over 10 years of evidence-led development by FIP and its formal and strategic partners. The workforce roadmap sets out the desired goals for education and workforce development of pharmacists and pharmaceutical scientists. Three key documents will be presented together with a discuss on workforce impact: A Global Vision for Education and Workforce that provides a description of the future directions of our profession and how education can support the progression of medicines science and practice. A set of Pharmaceutical Workforce Development Goals (PWDGs) which aim to facilitate national implementation of the global vision and roadmap through a series of measurable, feasible and tangible goals.

A set of Statements on Pharmacy and Pharmaceutical Sciences Education ("the Nanjing Statements") that describe an envisioned future for progressive professional education, to enable the further enhancement of pharmaceutical education standards worldwide. This session will present a Global vision, together with pragmatic solutions for re-building the national and international pharmaceutical workforce of the future and provide examples of national-level implementation that can guide workforce development in Jordan.

(357)
Easier Said than Done, Keys to Successful Implementation of Workforce Development Strategies.

Lina R. Bader Pharm.D. (UK)

The International Pharmaceutical Federation has launched a global roadmap for transforming pharmaceutical education and the workforce. The road map includes 13 transformative Pharmaceutical Workforce Development Goals that are intended to be implemented and adopted on the around the world. How can successful implementation be achieved? What are the factors to facilitating national-level uptake and how can we ensure that countries like Jordan are able to use FIP's roadmap to develop the local workforce? This talk will share lessons on successful case studies and describe the key factors for enabling sustainable implementation

(358) Developing Competencies for Translating Evidence Based Science Education into Medicines Use Information.

Prof. Ian Bates Pharm.D. (UK)

Investment in the development of an adaptable, flexible, competent and well-distributed pharmacy workforce, focused on direct patient care related to drug therapy, contributes to improved health outcomes. As experts in medicines, pharmacists are a trusted source of information for patients. The knowledge of medicines pharmacists receive through education and training must be based on evidence-based science and pharmacy practitioners must be able to source and critically use quality medicines-related information. FIP's

Global Competency Framework for pharmacy states that pharmacists must be able to 'Identify sources, retrieve, evaluate, organise, assess and disseminate relevant medicines information according to the needs of patients and clients'. This presentation will discuss the role of education, training and professional development for ensuring evidence-based science in the pharmacy workforce.

(359)
How Jordan Can Transform the Pharmacy Workforce and Instill Change in the Region

Lina R. Bader Pharm.D. (UK)

Pharmacists in Jordan are greatly positioned to play a key role in shaping the future direction of the country's healthcare system, particularly in terms of improving patient and health outcomes. Yet, there is considerable scope for developing the capacity of pharmacists to better align the workforce with both the current needs of the patients and the overall healthcare system's priorities. This presentation will discuss the progress the pharmacy profession has made in Jordan, provides an overview of the recorded challenges and, importantly, focuses on the opportunities lying ahead that open the path for the national workforce to be transformed and for Jordan to lead by example.

(360)
Improving Patient Care through Technology.

Janet P. Engle Pharm.D. (USA)

Innovations in health-related technology are helping to increase patient engagement in their care. Technologies such as patient portals, wearable devices, access to the internet, telemedicine and point of care testing are becoming widely available to consumers. This session will describe technologies that are used by pharmacists to improve or enhance patient care.

Objectives:
- Define the role of technology in patient care
- List 3 technologies used by pharmacists to improve patient care

(361)
Quality Assurance in Pharmacy Practice

Abeer Al-Ghananeem Pharm.D. (Jordan)

Health system pharmacists like other health care professionals, practice under a number of mandated standards. It should have a clearly defined quality management system that outlines the goals for the service and individual pharmacists along with the expected range and quality of service delivery. A practice standard is a statement that defines the performance expectations, structures, or processes that must be in place for an organization to provide safe and high quality care, treatment, and services. Many of quality assurance standard indicators are observed and implemented in many service sites nationwide, but several of these standards are not observed too due to lack of quality assurance logistics and guidelines at the national level. In this lecture, we'll discuss some Indicators that could be used as measures of processes and outcomes to guide and monitor the quality and appropriateness of healthcare delivery with the aim of continuous improvement. It is appropriate that all pharmacy practice sites are required to advance the profession, often with the same goal of increasing involvement in direct patient care. Thus, implementing the better use of clinical pharmacy practice.

(362)
Innovative Ambulatory Care Pharmacy Services

Janet P. Engle Pharm.D. (USA)

Clinical pharmacy practice in ambulatory care continues to expand into a variety of disease specific specialties. Patients with disease states such as clotting disorders, hepatitis C, psychosis, heart failure and arrhythmias have been shown to benefit from interventions by the pharmacist in the ambulatory care setting. This presentation will describe ambulatory care pharmacy services that a pharmacist can provide with a focus on targeted ambulatory care pharmacy services.

Objectives:
- Describe ambulatory care clinical pharmacy services.
- Outline the role of a pharmacist in targeted ambulatory care pharmacy services.

(363)
Innovative Medicines and Pharmacy Management Services

Mohanad Odeh. Pharm.D (Jordan)

Background: Within healthcare systems internationally, there is an emerging trend of the pharmacist performing as an active member of patient-centered healthcare delivery, rather than simply as a supplier of medicine. There is a growing body of evidence confirming that pharmacists within patient-centered roles can deliver beneficial outcomes to patients and indeed to the entire healthcare systems.
A recently developed key role in advanced professional pharmacy services is for the qualified and well-trained pharmacist to identify patients at high risk of medication related problems or patient with high band cost, then implement an effective and evidence based interventions to enhance both clinical and humanistic outcomes as well as the overall cost of therapy and hospitalisation. Moreover, to set a medicine optimisation roadmap that helps preventing unplanned rehospitalisation after discharge.

Aim: The aim of my overall research is to design and evaluate the impact of the provision of innovative, pharmacist-led interventions, with particular reference to decreasing the rate of rehospitalisation as well as enhancing clinical, humanistic and economic outcomes. The tested model was the Medicines Management Clinic (MMC) and Post-discharge follow up.

Methods: The body of the intervention research was conducted as a series of pragmatic research studies, in which different study designs were implemented. A prospective, mixed quasi-experimental, randomised by minimisation design was used in a pilot study. Propensity score matching and other enhancements to the matching procedure were applied in a follow-on prospective quasi-experimental study. The 'gold standard', randomized controlled trial (RCT) design was used as well. Finally, a retrospective, cross-sectional study design was used to evaluate the impact of Drug Burden Index on patient outcomes and readmissions. The research involved the construction of mathematical models to predict readmission risk within 7, 14, 30, and 90 days post the index admission.

Pharmacist interventions: Medication reconciliation, medication review and clinical medication assessment and management. Drug related problem management plan, and assessment of patient adherence, beliefs about medication, quality of life and satisfaction. Assessment of Drug Burden Index values and ratios.

Outcome assessment: Rehospitalisation rate, time to readmission, length of hospital stay, frequency of emergency care visits, frequency of GP visits, patient beliefs about medication, patient adherence, quality of life, patient's satisfaction, pharmacoeconomic assessment (Cost benefit analysis and cost opportunity saving), the impact of high Drug burden Index on patient hospitalisation.

Conclusion: The assessment was carried out through applying different study designs and involving different interventions approaches to evaluate the impact of pharmacist-led evidence based services (Medicine Management Clinic and Follow up services). An overall conclusion can be reported that clinically informed, multicomponent pharmacist-led interventions can drive a positive impact on patient clinical and humanistic outcomes and resulted in favourable economic figures for the healthcare system.

(365)
Assessing the Value of Oncology Drugs

Carlos Rubio-Terrés (Spain)

In 2012, there were an estimated 14.1 million cases of cancer diagnosed around the world and 8.2 million cancer deaths1. Since 1975, the chances that a cancer patient will live 5 years or more have increased by 41% across cancers2. By 2030, the global burden is expected to reach 21.6 million new cancer cases and 13.0 million cancer deaths solely due to the growth and aging of the population1. More than 60% of cancer deaths occurred in low- and middle-income countries, many of which lack the medical resources and health systems to support the disease burden1. The health expenditure of cancer in Europe has increased 2.3 times between the years 1995 and 20143. Each patient has the right to benefit from medical treatment, regardless of financial means, gender or nationality, but at the current rate of spending this will not be achievable4,5. The

increase in health spending linked to new cancer treatments endanger the patient access to the best treatments4,5.
The value of a health technology could be defined as "the health outcomes achieved per dollar spent"6. This definition is a renewed evocation of the concept of efficiency. Implementation of value-based drugs is one of the potential solutions to sustain cancer care and aid access to new treatments. The objective value of the oncology drugs can be evaluated through the new Multiple Criteria Decision Analysis (MCDA)/ Value Frameworks (VF) or through Cost-effectiveness analysis (CEA). The two main VF in oncology are those published by the European Society for Medical Oncology (ESMO) and the American Society of Clinical Oncology (ASCO) in 20157,8. Nevertheless, new MCDA/VF are very heterogeneous and suffer from methodological problems, so cannot currently be recommended as standard instruments9. A methodological problem of the MCDA/VF is that those instruments usually consider the costs as a criterion additional to cost-effectiveness. This amounts to a serious case of double counting and usually fails to distinguish between cost and opportunity cost9. CEA is not exempt from methodological problems related to discount rates, methods to calculate QALYs, the same QALY concept, time horizons and ICER acceptability thresholds. However, at present, the CEA is still the best method to analyze the value of oncology drugs, despite the methodological problems involved.

(366)
Nutrition Therapy Management in Intensive Care Unit

Mohammed Nour Bani-younes Pharm. (Jordan)

Early and appropriate Nutrition therapy provided for critical ill patients has been shown to improve overall outcomes by multidimetional mechanisms. For example; early nutrition therapy can attenuate the hyperdynamic systemic response and maximize immunity against trauma injury, serious illness and systemic inflammatory response reaction. Controversies limit the uniform application and potential benefits of nutrition therapies, including inappropriately to predict who will benefit from nutritional intervention, lack of consensus on what the optimal enteral formulation is, overreliance on parenteral nutrition, failure to maximize the use of early enteral nutrition (EN), and how much and how best to feed the morbidly obese population. Despite challenges, specialized nutrition strategies have evolved to support and optimize the metabolic requirements during critical illness and at same time to mitigate stress-induced immune and hyperdynamic systemic responses. Nutrition should be considered early and commenced after initial resuscitation has taken place. This is most effectively accomplished with the use of protocols that aggressively promote early nutrition therapy in order to lower overall mortality and a reduction in major complications.

(367)
Radio pharmacists Role in RMS & Jordanian Nuclear Projects.

Ala' Khwaj ,Pharm(Jordan), Amer Alhourani Pharm, Faisal Al-Obaid ,Pharm

Radiopharmacy is a growing field in Jordan as well as in MENA region. We started in Jordan/ specially in RMS, in the year 2005 at the Cyclotron & PET unit as pharmacist in charge of production, releasing and dispensing of 18F-FDG.
Now we are responsible on the production and dispensing of (FDG, Ga68, Lu177), quality control for these products. And supplying the hot and cold material to the RMS end users as well as the private and governmental centers.
After few years of continuous training and hardworking; and by the relations with JAEC and EMRC, RMS signed a MOU to lead the radioisotopes production unit (RIPF) in the JRTR (Jordan research & training reactor) in Jordan University of Science & Technology, and assigned one of our radiopharmacists to be a technical manager for the RI production in the reactor to be responsible for registration and release of final products.
And in the field of Nuclear safety and security, now we have a member in the Jordanian – Canadian nuclear security collaboration board (nuclear forensic lab preparation) which consist from several members from different departments in Jordan.
In our future vision and plan for the radiopharmacy field, we look forward to produce more radioisotopes n RMS or in the JRTR, and to control all nuclear lab in Jordan, which must be supervised by our stuff as an unique specialists

in our country to control the usage of nuclear materials in medicine and to give this material the pharmaceutical status under the FDA rules.

(368)
Role of Pharmacist in Jordanian Pharmacovigilance reporting system: a national need to improve drug safety

Sameh Al-Zubiedi

Objectives The talk aims in its first part to introduce basic terminology and provide definitions of key concepts of PV and national and international PV reporting system. It will then explain the strengths and weakness of PV reporting systems. The talk will also explain he crucial role pharmacist, both in community and hospital settings, can play in improving ADR reporting and minimising drug related problem. It will focus on developing educational programs in pharmacovigilance and long-term training pharmacist alongside effect communication skills needed to increase pharmacists' workforce contribution to the national pharmacovigilance reporting system.

Methodology Pharmacovigilance (PV) is defined as the science and activities relating to the detection, assessment, understanding and prevention of adverse drug reactions (ADRs) or any other drug-related problems. Many ADRs are not discovered during limited pre-marketing clinical trials. Instead, they are only observed in long term post-marketing surveillance (PMS) following drug licensing. However, the success of PMS is highly dependent on the collaborative efforts from healthcare professionals (HCPs) including pharmacist. Pharmacist are drug expert who are specifically trained in this field and ,therefore, the strong involvement and contribution they could have to the national PV system would increase both the quality and quantity of suspected ADR reports.

Results and Discussion None **Conclusion** Pharmacists must play a prominent role in reporting ADRs and patient safety in the future. This will improve the outcome of the pharmacotherapy as well as decrease health costs.

(369)
Hospital pharmacy medication reconciliation practice in Jordan: perceptions and barriers

Dr Khawla Abu Hammour , Rana Abu Farha and Iman Basheti

Objectives The primary aim of this study is to gain an insight into hospital pharmacists' current practice and perceptions towards medicine reconciliation and to identify common challenges preventing pharmacists from providing this service.

Methodology A cross-sectional study was conducted over 2 months (September–October2015) at four Jordanian hospitals accredited by the Joint International Commission. A total of 76 pharmacists were recruited. Each pharmacist completed a validated structured questionnaire evaluating (1) pharmacist's current practice of medication reconciliation, (2) pharmacist's perceptions towards practicing medication reconciliation and (3) pharmacist's perceived barriers towards implementing medication reconciliation

Results and Discussion There was relatively low awareness of the presence of current medication reconciliation policy in the hospitals. The majority of recruited pharmacists believed that pharmacists must have an integral role in providing such services to patients. They were also willing and able to provide help and support to all healthcare providers regarding the appropriateness of prescribed medications. It was evident that the greater the practice of medication reconciliation services and the higher the educational level, the better the overall perception score ($r = 0.416$ and $r = 0.366$, respectively ;P-value = 0.000 for both). 'Time constraint' was the primary barrier discouraging pharmacists from practicing such service.

Conclusion This study demonstrates a relatively low awareness of the concept and policy of medication reconciliation process among Jordanian pharmacists. This suggests that educational programs are urgently needed to increase pharmacists' role and responsibilities in implementing and practicing reconciliation services with expected positive impact on patient care.

(370) Updates on Pharmaceutical care and the Medication Management Review Service in Jordan

Professor Iman Amin Basheti

Community pharmacy represents a significant portion of the Jordanian's health care delivery system. In addition, community pharmacists are among the most accessible and trusted sources of health care for many patients across the country. As medication experts, community pharmacists provide counseling on the treatment of a variety of health related concerns, prevent co-morbidities, ensure that patients consistently take their medications, and reduce overall costs when possible. Advanced pharmaceutical care services include the Medication Management Review (MMR) service, which is a patient-focused, structured and collaborative health care service provided in the community setting to optimize patient understanding and quality use of medicines. Many research studies have been conducted in Jordan to investigate the impact of providing the MMR for outpatients by clinical pharmacists. The studies identified important treatment related problems (TRPs) for different populations, including patients with chronic health problems recruited through numerous private and public community pharmacies (n= 167), private community pharmacies (n= 160), doctor clinics (n= 112) and Pharmacy One chain pharmacies (n= 84). Focused studies were then successfully implemented for special patient groups, including Syrian refugees (n= 123), patients with uncontrolled diabetes (n= 139), females with anxiety and depression (n= 80) and patients with asthma (n= 140). Beside preventing and resolving TRPs, the studies also explored physicians' acceptance and patients' responses to the recommendations provided by the clinical pharmacists. Pronounced benefits were achieved due to the MMR service, highlighting the significant role of the pharmacist in identifying, resolving, and preventing TRPs, as well as in improving patients' clinical and humanistic health outcomes. Physicians' and patients' high acceptance rates of the service indicate that, once applied in the country, the MMR service will be welcomed and sustained. Absence of the General Practitioner/ Family Doctor system in Jordan, high prevalence of self-treatment amongst patients, unsupervised use of herbal products, and the ever increasing number of Pharmacy, Doctor in Pharmacy and Masters in Clinical Pharmacy graduates shed light on the importance of introducing this service, and call upon the policy makers to pave the way for it to become viable and remunerated.

(371)
Economics of Hepatitis B in Al-Hussein Hospital/ Royal Medical Services

Jelnar Alkalaldeh, Reham Mrayat

Objectives increase the awareness against the importance of hepatitis B vaccination

Methodology This study is composed of two main parts. The first part is descriptive analytical qualitative study based on interview of 100 health workers in al Hussein hospital at Royal Medical Services. Participants were selected randomly from nurses, doctors and pharmacists. Participant were asked two questions, the first one if they had ever received HBV vaccine in their lives, the second question was if they had ever attend a training or a workshop about any related topic to HBV during the last three years. The second part of the study is calculating the cost of treatment (in term of medications only) for patients with CHB at the protocol pharmacy in al Hussein hospital. The data for the two parts was collected by a pharmacist employed in the same hospital.

Results and Discussion For the first part: Majority of the health care providers didn't receive any vaccination against HBV during their lives, with a percentage of 60. Only 40% had received a vaccine in their lives. From this analysis with a special emphasis on pharmacists' vaccination, only 19% of the pharmacists had received vaccination, with 81% of them didn't receive any vaccination against HBV. By evaluating the knowledge and the experience of the health care providers, a big shortage was founded. Lack of awareness and continuous education programs was noticed, For the second part: the data was collected until 22/3/2018, the number of patients was as the following: Zeffix (lamivudine) 260, ribaverin 1, pegasis 180(interferon) 1, hepsera (adefovir) 67, Baraclude (entecavir) 73 . calculation of the cost is done based on published market prices

Conclusion Although of chronic hepatitis B economic and health burden, it is not viewed as public health priority, suffer from lack of awareness

and financial support. (2) Especially in low income countries (4). CHB do not have the same level of research funding when compared with other diseases (2) Our study confirmed the finding of other studies performed in Jordan that the majority of Jordanian health workers need adequate training to subjects related to hepatitis infections, and they showed the interest for that (8).World widely there is limited training and experience of the majority of healthcare worker in evaluating patients with CHB (1). In Jordan all heath facilities implemented the standard polices for infection control with single use instrumentation (14). And this is noticed in our hospital in RMS, but a concentrated effort is needed to vaccinate the health care provider and empowering them with knowledge and good education about HBV. Robust supply chain management is required to ensure the availability of medical consumables and medicines in the health care system with the lowest cost (1). And this is applied in the RMS where every patient fined his monthly dose of antiviral medication, which is always available and accounted for.

(372)
Pharmacy and therapeutics committees in Jordanian hospitals: a survey of structure and activities

Somaya Alshareef, Dr. Qais Al Efan, Dr Samah Shatnawi

Objectives This study aimed to describe the structure, activities and drug selection process of PTCs in Jordanian hospitals

Methodology A cross sectional study was conducted in the period December two thousand sixteen to April two thousand seventeen among one hundred and six Jordanian hospitals thirty two governmental hospitals, nine military service hospitals, two university hospital and sixty three private hospitals. Data was collected using a validated questionnaire which was sent to chief pharmacist in those hospitals. It included twenty questions of demographics, structure and activities of PTCs. Statistical analysis were processed by MS Excel two thousand and seven for Windows ten.

Results and Discussion In this study, forty five percent of Jordanian hospitals had PTC in their structure. The majority of committee secretary were pharmacists seventy five percent. All of the PTCs had a hospital or clinical pharmacists in their structure. Majority of PTCs ninety three percent documented their meetings minutes. Majority of hospitals eighty four percent had a printed hospital formulary drug application forms. Number, frequency, and severity of adverse drug reactions were the most reported criteria for drug selection process. The majority of responses were legal implications for practical, economic, and organizational factors used in drug selection process. PTCs are mainly present in most of large hospitals. Although PTC consists mostly of physicians, pharmacists have an important role in organizing and noting the meetings. The main responsibilities of PTC in Jordanian hospitals are general prescribing policies. PTCs in Jordan usually use detailed guidelines for drug selection process in their hospitals.

Conclusion This study indicate that Jordanian hospital PTCs differ to some extent with respect to their clinical expertise and some of their activities, a situation similar with that observed in other countries. Furthermore, PTCs are relatively similar with other countries in terms of, structure, activities, criteria used in drug selection process.

(373)
Experience of Private Sector in Establishing Poison Information Center Challenge and Promise

D. Aida Al-Fwadleh, D. Liqa' Al-Rafeea

Background Pharmacy One Poison Center provides telephone consultations on clinical toxicology to public and professional as well as public awareness to prevent poisoning in Jordan by providing the accurate first aid and medical management to poisoned patients around the clock.

Objectives To analyze data on the epidemiology of poisoning exposure in Jordan in the past 4 years.

Methodology Analysis of the descriptive computerized data and documented inquires recorded by Pharmacy One PC in the last three years using Oracle system.

Results and Discussion A total of 1806 poison

exposure cases were reported to Pharmacy one Poison Center, 65% of consultations were reported from 911. Children under the age of 5 years old were involved 30% of cases; 56% of exposures was unintentional and 16% suicidal mostly noted in adolescents and young adults. Medications accounted 38% of cases, household products 18%, hydrocarbon 5%, bite and sting 9%. Substances most frequently involved were analgesics and over -the- counter non prescribed medications. The clinical severity was asymptomatic / No effect in 31% and Minor in 52% of cases based on PSS (Poisoning Severity Scale). Since establishment; Pharmacy one Poison Center carried out successfully many awareness lectures and campaigns to prevent poisoning for health care providers and different community sectors.

Conclusion The rates of reporting poisoning cases have been increased significantly after connection of Pharmacy one Poison Information Center with Command and Control Center (CCC) / 911. Pharmacy one data base is a valuable national resource for collecting and monitoring cases of poison exposure and can be used as a real – time surveillance system. It is recommended that reporting to Pharmacy one PC become mandatory mainly from all professionals in health section and that its activities be adequately supported by national resources.

(374)
A Cross Sectional Study of Knowledge, Attitudes and Practices Among Jordanian Nurses Towards Pharmacovigilance in Amman

Mais TAwfiq Krishan, Farouk Shakhatreh

Objectives The purpose of this study was to assess the level of knowledge, attitudes and practices regarding pharmacovigilance and adverse drug reactions reporting among Jordanian nurses working in two governmental hospitals in Amman. It also aims to investigate the relationship between selected socio-economic characteristics of Jordanian nurses and their knowledge, attitudes and practices of pharmacovigilance and adverse drug reactions reporting. It also aims to identify factors that affect the level of knowledge, attitudes and practices of Jordanian nurses toward pharmacovigilance

Methodology A cross sectional study was performed on Jordanian nurses working in two governmental hospitals in Amman: Al-Bashir and Jamil Al-Toutangi hospitals. A convenient sample of 321 nurses was used. A questionnaire that consists of five parts was distributed among nurses. Knowledge and attitude scores were calculated. Data were entered and analysed using the SPSS software, version 17.

Results and Discussion Poor level of knowledge of pharmacovigilance was found among 79% of nurses. One way analysis of variance (ANOVA) revealed that nurses' working department (P=0.001), age group (P<0.001), their level of education (P=0.033), and years of professional experience (P=0.041) significantly affect knowledge score. Good level of attitudes was found among 71.7 % of nurses. Nurses' working department (P<0.001) and their level of education (P=0.03) significantly affect the attitude score. Negative correlation was found between nurses' knowledge and attitudes. Both working department, knowledge and attitude scores were significantly associate with nurses' practice (p<0.05).

Conclusion Participating nurses showed poor level of knowledge towards pharmacovigilance and ADRs reporting system. Both the attitudes and practices among nurses on pharmacovigilance were good. Both training and educational programs are major tools that increase Jordanian nurses' knowledge, attitudes and practices toward pharmacovigilance reporting system.

(375)
Analysis of Antineoplastics, Immunomodulators, Antibiotics and Analgesics Adverse Drug Reactions Reports Submitted to the Pharmacovigilance Database in Jordan

Ph D Adel Salem Batarseh, Dr Mohammed Alsbou Ph Nidda Bawaresh Ph Jaber Jaber Ph Gadeer Qawasmi Ph Hayat Banat

Objectives The aims of this study were to identify the most frequently body system classes and the most common adverse drug reactions (ADRs) for the four major classes of dugs implicated in the pharmacovigilance (PV) database and include: antineoplastics, immunomodulators, antibiotics and analgesics.

Methodology A national pharmacovigilance database was created recently at the Rational Drug Use and Pharmacovigilance Department at Jordan Food and Drug Administration (JFDA). This study was based on the analysis of the ADRs reports submitted to the national PV database in Jordan from 2010 to 2014

Results and Discussion The most affected systems by ADRs in our study were the skin and the gastrointestinal (GI) systems. The skin ADRs associated with the use of antineoplastics were skin rash, hand and foot syndrome and acral erythema, and the most frequent GI ADRs were vomiting and diarrhea. The most affected system by the use of the immunomodulators was the blood system and the most common ADRs were anemia, thrombocytopenia and neutropenia. The most commonly ADRs following analgesics use were GI bleeding and duodenal ulcer and the skin reactions were rash, itching and flushing

Conclusion Analysis of the national PV database provides close monitoring and more information about the safety of medicine in Jordan. All Health care provider should be aware of the importance of reporting of adverse reactions and should be encouraged to report suspected ADRs and be trained in detecting, diagnosing and treating patients with adverse effects of drugs

(376)
Anti-D versus Immunoglobulin-G for the Treatment of Acute Immune Thrombocytopenia in Children: A 10-Year Palestinian Experience

Mohammed K. El-Habil

Objectives Although anti-D immunoglobulin (anti-D) therapy offers lower cost and shorter infusion time than intravenous immunoglobulin-G (IVIG) its comparative effect in acute immune thrombocytopenia (ITP) has not been studied thoroughly. The aim of this report was to compare the effect of anti-D and IVIG in the treatment of acute ITP in children.

Methodology The medical records of children diagnosed with acute ITP between January 2008 and January 2018 at Al-Rantisy specialized pediatric hospital (a tertiary care centre) in Gaza were reviewed. Patients received either IV anti-D (75μg/kg single dose) or IVIG (2g/kg in divided doses) as initial treatment for ITP were included in this retrospective study. The platelet count, hemoglobin content, and side effects of medications were evaluated before (pretreatment) and after 1, 3, 5, and 7 days of treatment. Therapy response was defined as time taken to increase platelet count over 20,000/μL.

Results and Discussion 134 patients with a mean age of 5.8 years (range 1.1 to 10.4 years) were included over the last 10 years for analysis. Of these, 43 (32%) received anti-D and 91 (68%) received IVIG. Mean pretreatment platelet counts were 6420/μL and 8750/μL in anti-D and IVIG groups, respectively. The platelet count increased significantly after 1, 3, 5, and 7 days of treatment in both groups ($P<0.0001$). After 24 hours of treatment, 58% of patients in the anti-D group and 55% of patients in the IVIG group had platelet count over 20,000/μL. Moreover, the platelet count of all patients in both groups were more than 20,000/μL after 7 days of therapy. Yet, there were no significant differences in platelet count after treatment between the two groups. The hemoglobin content decreased until 72 hours after treatment ($P<0.0001$), but showed an increasing trend on days 5 and 7 thereafter in both groups. The changes in hemoglobin after treatment were similar in both study groups. No patient developed severe anemia requiring medical intervention. Fewer adverse effects (headache, vomiting, chills) were reported in children given anti-D. Average length of hospital stay was significantly shorter in the anti-D group than in the IVIG group (1.9 days versus 3.2 days; $P<0.0001$).

Conclusion In this analysis, anti-D was as effective as IVIG for the treatment of acute ITP in children. Considering the fewer adverse effects and the shorter time of hospitalization of anti-D group, it makes a good substitute for IVIG in ITP patients.

(377)
Vitamin D is a Potential Antidepressant in Psychiatric Outpatients

Prof. Khalid K Al-Ani, Safa'a O. Almanasrah, Bayan A. Obeidat, Aws G. Khasawneh

Objectives Anxiety and depression are globally common disorders. In Jordan, the number of people visiting psychiatric clinics has been

increasing over the past few years. Low level of vitamin D is associated with musculoskeletal pain (MSP) and is increasingly linked to the pathology of mental disorders. The aim of current study was to assess the prevalence of vitamin D deficiency among psychiatric

Methodology Seventy-four outpatients and gender age matched control were involved. Outpatients were pre-diagnosed by psychiatrist to have mental disorders (Anxiety, Depression, Others). Hospital Anxiety and Depression Scale (HADS) was used to assess psychological symptoms before and after treatment. Patients with low vitamin D received oral vitamin D supplementation.

Results and Discussion Some 83.8% had vitamin D deficiency level, and 95.95% experienced musculoskeletal pain (MSP) compared to 40.6% and 0.0% of the control respectively. There was statistically significant difference in vitamin D level (p=0.011) and total number of pain sites (p=0.032) among psychiatric outpatients sub groups. Our results are in the line with those of other studies. Vitamin D deficiency is associated with persisting pain. A high prevalence of low vitamin D level and MSP in different diagnostic groups of psychiatric outpatients was found. Subjects who experience MSP are more likely to have higher risk of psychological symptoms. Relative to baseline, all measured outcome parameters significantly improved after vitamin D supplementation plus dairy products in 40 psychiatric outpatients. The finding of the current study suggests that vitamin D may have important physiological roles in mental disorders.

Conclusion Vitamin D deficiency and MSP were very common among Jordanian psychiatrics outpatient independent of diagnostic category. Vitamin D supplementation plus increased dairy products intake had significant positive impact on physical and mental health status in psychiatric outpatients. Screening for vitamin D deficiency and daily calcium intake could be a routine for psychiatric evaluation.

(378)
An Update on Herbal Remedies used in Ethnomedicine, Ethnobotany and Phytotherapeutic by Jordanian Patients, Herbalists and Pharmacists

Reem Issa, Ghainaa Abu Diab

Objectives Traditionally used herbal remedies that are used in folk medicine have become popular among Jordanians, due to its abundance in vast sources of ethnomedicine.

Methodology A number of recent studies on herbal remedies that have been used by Jordanian herbalists and pharmacists in ethnomedicine, ethno-botany and phytotherapeutic have been reviewed with the aim of clinical evaluation and validation of preparations. Users believe and practices were also explored.

Results and Discussion The presented updates showed that inefficient use of herbal remedies is common; in addition to poor practices, knowledge and behaviors by the study population. It also revealed the presence of strong believes about the efficacy and safety of such remedies over conventional medicine by the patients, herbalists and pharmacists. The later showed an interest in attending educational courses on the use of herbal remedies at pharmacy schools, in order to improve their ability to serve their patients.

Conclusion People of the area are very dependent on medicinal plants using traditional knowledge, which worth conservation strategies to be developed. Some common errors among herbalists and pharmacists practices, knowledge and behaviors toward the use of herbal remedies have been highlighted in the presented update. Such findings would pave the way for recommendations to new strategies to be implemented in the country in aim to resolve critical issues.

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Perceptions of Teratogenicity

Mrs WejdanShroukh, Dr Douglas Steinke Dr Sarah Willis

Objectives To provide an up to date review of the literature available regarding the perceptions towards teratogenic medications

Methodology A search of Scopus, Medline, Embase and Pubmed was undertaken. Studies reporting the perceptions of health care professionals or healthy individuals towards at least one teratogenic medication or class of medications, or drug labels conveying information about teratogenicity were included. Teratogenic risk as reported in the studies was classified as over-estimated, under-estimated, or properly-estimated

Results and Discussion in total, 10 studies were identified. Teratogenic risk was over-estimated by participants in 8 studies and was properly-estimated in two. Exceptions from over-estimation included physicians, medical students, and women of higher health literacy

Conclusion There is a general tendency to over-estimate the teratogenic potential for medications among lay people and healthcare professionals

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Prevalence and Risk Factors of Anemia among Ever-married Women Aged 15-49 Years in Jordan: Results from the 2012 Jordan Population and Family Health Survey (JPFHS)

Dr. Rasha Arabyat, Ghaith Arabyat, MD Ghaith M. Al-Taani

Objectives This study examined the prevalence and risk factors of anemia among ever-married women in Jordan using a secondary analysis of Jordan Population and Family Health Survey (JPFHS).

Methodology This is a secondary analysis of data from a nationally representative sample of ever-married women aged 15-49 years that were tested for hemoglobin levels in the 2012 JPFHS. Anemia was categorized according to the WHO criteria. Univariate and multivariate logistic regression analyses were used to investigate risk factors associated with anemia.

Results and Discussion The prevalence of any anemia was 37.3%; specifically, 20% had mild anemia (hemoglobin 11.0 – 11.9 g/dl), 16.3% had moderate anemia (hemoglobin 8.0 – 10.9 g/dl) and 1% had severe anemia (hemoglobin < 8.0 g/dl). Factors that were associated with anemia in the multivariate regression included urban women ($p = 0.01$), living in North ($p = 0.014$) or South regions ($p = 0.013$) of Jordan, having multiple children ($p < 0.001$), being pregnant ($p < 0.01$), and using IUD as a contraceptive method ($p < 0.001$).

Conclusion
A high prevalence of anemia among ever-married women of reproductive age in Jordan was noticed. The results emphasize the importance of urgent public health interventions to prevent anemia in Jordan, particularly among high-risk subgroups.

(381)
Impact of Obesity on Clinico-Pathologic Characteristics and Molecular Subtypes in Pre- and Postmenopausal Breast Cancer Patients

Nehad M. Ayoub, Ph.D., Rami J. Yaghan, Ismail I. Matalka, Laila M. Akhu-Zaheya, Alia H. Al-Mohtaseb

Objectives To investigate the association between obesity and breast cancer characteristics and molecular subtypes among Jordanian patients. Such data is lacking in Arabian countries.

Methodology In this retrospective study, 348 breast cancer patients were included. Analyses were conducted for associations between body mass index (BMI) and age at diagnosis, tumor clinico-pathologic characteristics, and molecular subtypes. The analysis was stratified by menopausal status

Results and Discussion Mean age at diagnosis was 50.98±10.96 years. Mean BMI at diagnosis was 29.52±5.32 kg/m2. Mean age at diagnosis was significantly higher for overweight and obese patients compared to underweight/normal patients ($P<0.001$). A significant positive correlation was observed between patient age and BMI at diagnosis ($r=0.251$, $P<0.001$). Grade of carcinoma was significantly correlated with BMI in the whole population examined ($P=0.003$). There was no correlation between receptor status, tumor size, lymph node status, lymphovascular invasion and BMI. Stratification of data analysis based on menopausal status revealed significant associations between obesity and tumor stage and grade among postmenopausal cases ($P=0.019$ and $P=0.031$, respectively). However, in premenopausal

patients, BMI lacked significant association with all clinico–pathologic characteristics examined. No significant correlations between BMI and breast cancer subtypes were observed.

Conclusion Obesity was associated with a more advanced stage and grade of breast carcinoma at diagnosis. The impact of BMI at diagnosis of breast cancer was confined to postmenopausal cases. No association between obesity and tumor subtypes was observed in this study.

(382)
Impediments to Use of Oral Contraceptives among Refugee Women in Camps, Jordan

Sanaa Bardaweel, Amal A. Akour and Aseel ALkhawaldeh

Objectives This study aimed to assess factors related to oral contraceptive (OC) use among refugee married women in the age range 18-50 years, residing in refugee camps in Jordan.

Methodology A face-to-face questionnaire was completed by 425 women, who had used OCs at least once in their lifetime as a contraceptive method. Data were collected between November 2016 and January 2017.

Results and Discussion About 45% of women preferred OCs as a contraceptive method. Most (80%) women thought OCs were effective, while 68.5% were concerned about their safety. About 10.6% of women became pregnant while using OCs, and 75% reported side effects, specifically headache (54.6%), irritability (46.4%), mood swings (39.1%) and weight gain (30.6%). However, only 21.2% of participating women reported that they knew how to use OCs. Alarmingly, 85.9% of women reported that they skipped the OC pill when they missed using it. Knowledge about correct use was directly correlated with education, number of pregnancies and children, and duration of OC use.

Conclusion Women residing in refugees' camps in Jordan had relative unwillingness to use OCs. Although they tended to use them appropriately and had fair experience with their use, large gaps in their knowledge were apparent.

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Electrodiagnosis in Rehabilitation

Ziad Hawamdeh MD (Jordan)

Electrodiagnosis is an important diagnostic study that uses electrical technology to study human neurophysiology. It includes nerve conduction studies (ENG), electromyography (EMG), and evoked potentials (EPs).
The exam is important as it gives answers to pathologies involving nerve injury, muscle injury, muscle disease, localization, and prognosis. This information is functional and not static and can help to focus treatment on the affected site of injury.
Patients undergoing the exam usually present with clinical symptoms of numbness and parasthesia, pain or weakness. Common reasons for referral include low back pain, neck pain, symptoms suggesting neuropathies or myopathies. Peoples with suspected nerve injuries due to limb trauma are also referred to do the exam.
Electrodiagnostic studies are performed by Various specialists. Understanding and performing electrodiagnostic tests is a requirement in the specialty training of physical medicine and rehabilitation (physiatry) residents and is considered an elective in the training of neurology and anesthesia residents in USA.

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The Growing Trend of Early Rehabilitation in Neurorehabilitation

Sabahat A Wasti MD (UK)

In the last decade there has been growing trend towards early rehabilitation. ICU rehabilitation has become an integral component of ICU care and this has indeed had a positive impact on both survival and quality of outcome. In neurological rehabilitation, early rehabilitation has been most researched and made essential component of clinical care pathway in stroke. Animal studies show that within hours after ischemic injury, a cascade of genetic, molecular, cellular, and electrophysiological events is triggered which starts the process of reorganization and regeneration of neural tissue. These events begin within hours after stroke and become most pronounced around 2nd week and may end by approximately 30 days period. This evidence forms

the basis for introducing rehabilitation early, with view to maximizing the impact of neuroplasticity during this dynamic early period after stroke. There has been steadily accumulating evidence in favour of early rehabilitation in stroke. Similar evidence for early rehabilitation is now emerging in other neurological conditions, most notably traumatic brain injury. Aside from initiating the neuroplastic and directing it in right direction, early rehabilitation improves outcome by preventing secondary complications. With emphasis on early out of bed mobilization, appropriate moving and handling technique, effective bowel and bladder care as well maintenance of cardiorespiratory efficiency and adequate nutrition, early rehabilitation is efficient and reduces length of stay and facilitates early community re-integration.
It is imperative to understand the principles of Early Neurological Rehabilitation and implement these in clinical practice in order to achieve best outcomes for patients with neurological conditions, most notably those with stroke and brain injury.

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Interventional Management of Handicapping Spasticity

Abdul Karim Msaddi MD (UAE)

Spasticity represents handicapping sequellae after head and spinal injury, CVA, cerebral palsy, multiple sclerosis and other upper motor neuron insults. Classical oral antispastic drugs or botulinium toxins, intensive physiotherapy are of great help, but in spite of all these, spasticity continue to develop in many patients, "especially in spinal cord injury and cerebral palsy patients", which compromise the physiotherapy and rehabilitation plan.
The improvement in basic understanding of the problem, with the concept of useful and harmful spasticity, sophisticated neurophysiological examinations, advancement in microsurgical techniques combined to intra-operative electrical stimulation and neurophysiological monitoring. All these factors played significant roles in improving the management of spasticity where many international and surgical techniques are well developed such as the functional posterior rhizotomy and the selective peripheral microsurgical neurotomies, the DREZ and the intrathecal chronic infusion of Baclofen. With all these factors, functional neurosurgery has shifted to improve the functional results in spastic patients, choosing co-operation rather than competition with the other disciplines concerned by spasticity treatment. The neurosurgeon specialised in spasticity represents only one part of a comprehensive team composed of physiatrist or paediatric neurologist, physiotherapist, orthopedist and nursing.
Multidisciplinary team, help making comprehensive therapeutic decisions in pre-operative patients' selection, surgical technique and post-operative planning. This paper we will cover many techniques used in our interventional approach to treat these patients.

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Laparoscopic Renal Surgery

Muhammed Alghazo MD (Jordan)

Although laparoscopic renal surgery dates to nearly 30 years ago, in which the first laparoscopic nephrectomy was performed in 1990, the history of laparoscopic surgery dates back over 100 years, when first laparoscopic surgery was performed on dogs. During the last 30 years, advances in technology and techniques in laparoscopic renal surgery has been developed. With the introduction of robotic technology and new instruments, laparoscopic renal surgery is becoming less invasive and operative outcomes are improving. While the first laparoscopic nephrectomy was successfully performed at Washington University in 1990by Dr.ralph clayman and his team, the first lap. nephrectomy was performed at King Abdullah university Hospital was performed in 2006. (by prof. M Al-Ghazo).
Since 2006 till now we performed more than 150 laparoscopic renal surgery (simple nephrectomy, radical nephrectomy, and partial nephrectomy)

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Role of Surgery in Prostate Cancer

Firas Al-Hammouri MD (Jordan)

Radical prostatectomy is one of the established therapeutic options for localized and locally advanced prostate cancer. It's one of the best documented on long-term oncological and

functional outcomes of all existing therapeutic options. The pattern for indicating surgical treatment of prostate cancer has substantially changed in the last decades. Radical prostatectomy lost its dominant role with shift towards active surveillance in low risk disease. The indication has moved towards intermediate risk group, high risk disease, more advanced disease, and recently toward oligometastaitc disease.
Rational for surgery in M1 prostate cancer are to improve local control, removal of the source for further metastasis and improve response to systemic therapy. Additionally, robotic RP has progressed into the new gold standard surgical approach because of the lower complication rates compared to the open approach.
In the presentation I will discusses the change in the indication for Radical prostatectomy, the role of concomitant lymph-node dissection and its potential future role as part of a multimodal therapeutic strategy in oligo-metastatic disease.
Keywords: Radical prostatectomy, oligo-metastatic disease, active surveillance.

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Approaches for Surgery at Prince Hussain Urology Center

Awad Alkaabneh, MD, Feras Hammouri, MD. Adnan Abo Qamar, MD Jan Shishani, MD. RaedAljarrah, MD.

Objectives Surgical approaches for kidney pathology are variable, surgeon experience ,tools availability and multidisciplinary surgical teams can offer the best surgical approaches.

Methodology Retrospective review of 158 patients' electronic file (Hakeem) underwent renal surgery between Jan 2017 and Dec 2017.looking for indication, surgical approach, immediate complication, and pathology report.

Results and Discussion Of 158 renal surgeries, 87 female, 71 male. 89 left kidney, 69 right kidney, 54 for malignant pathology of them 45 radical and nine cases of partial nephrectomy, flank incision is the most common approach withleast complication rate for 140 cases, midline laparotomy which is mainly for huge locally advanced renal pathology, Gipson and laparoscopy four cases each, and subcostal approach for two cases.

Conclusion Multidisciplinary surgical teams and availability of surgical tools are factors that determine best surgical approach for renal pathology surgery.

Keywords flank incision, midline laparotomy, nephrectomy.

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Management of post PCNL Bleeding, Our Experience in Prince Hussein Urology Center

Dr Mohannad Al- Naser Md, Firas Khori.Md Awad Al Kaabneh.Md Monther Alemoush. Md Samer Al Jfoot.Md Sezief Haddad.Md Suhad Joudeh.Md Wesam Al Nasraween. Rn Heyam Mohammad.Rn Baraa Taani.Rn

Objectives Renal urolithiasis is a very common disease in our country. Percutaneous nephrolithotomy is a very efficient procedure to treat various types of renal stones. This is a retrospective study carried out in Prince Hussein Urology Center to report the bleeding incidence and management post PCNL.

Methodology The study was carried out between period of Jan 2012 and Dec 2017 at Prince HUSSIEN Urology Center on 2000 patients who underwent PCNL with age range from 17 to 76 year old. 1340 patients were male and 660 were female patients... Bleeding transfusion post and during procedure was reported and data collected.

Results and Discussio Blood transfusion post PCNL were needed in 200 patients out of which 25 patients presented with persistent bleeding from day one tell day 8 post surgery who required renal angiogram for diagnosis and treatment of bleeding. Pseudo aneurysms were found in 14 patients. Arteriovenous fistula were found in 6 patients, mixed pathology were found in two patients and in one case massive severe bleeding which required urgent nephrectomy.

Conclusion Bleeding post PCNL is common complication with incidence rate of about 10%. it can be treated either conservatively in most case , however persistent bleeding require renal angiography to diagnose and treat underlying pathology is required in about 1% of all cases.

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Post Radical Cystectomy management, a comparative study assessing the clinical effectiveness of ERAS and non ERAS protocol

Ghaith Qsous,Mohannad Al-Naser M.D, Firas Khouri M.D, Ashraf Al-Majali M.D

Objectives Enhanced recovery after surgery protocol proved his effectiveness on colorectal surgery, today we want to assess his effectiveness in urological surgery.

Methodology Tthis is comparative prospective study was conducted on 400 patients who underwent elective radical cystectomy surgeries in the urological department in Prince Hussein Center for urology and organ transplant in Jordan - which is a level one Urological Center - from January 2014 to April 2018 for bladder cancer. patients data were collated from electronic records, pathology and follow up notes in the clinic.

Results and Discussion Out of 400 patients, 180 patients were treated by ERAS protocol (group A), other 220 were treated by non ERAS protocol (group B) . in group A the length of hospital stay was 4.1 days ,median age was 65 years old , 80% were male and 20% were female , all patients had invasive bladder cancer , DVT happened in 1 patient (0.5%), PE happened in one patient (0.5%) , wound infection in 10 patients (5%), mortality was in 4 patients (2.2%) , ileus in 6 patients (3.3%), readmission for different causes were 40 patients (22%) . in group B the length of hospital stay was 7 days ,median age was 63 years old , 85% were male and 15% were female, all patients had invasive bladder cancer , DVT happened in 3 patient (1.3 %), PE happened in 4 patient (1.8%), wound infection in 14 patients (6%), mortality was in 4 patients (1.8%), ileus in 12 patients (5.4%), readmission for different causes were 25 patients (11%).

Conclusion comparing our results with ERAS guidelines we have same results, which lead to reducing in length of stay in the hospital and decrease the complications, so we recommend to use ERAS protocol instead traditional care on patients undergoing elective radical cystectomy surgeries.

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Mechanical Low Back Pain Rehabilitation and Management

Hisham Sayegh MD (Jordan)

About 80 percent of adults have at least one episode of low back pain (LBP) during their lifetime. LBP can be inflammatory and none-inflammatory, the majority of which is mechanical, rarely related to serious underlying conditions such as infections or tumors. The differential diagnosis is broad and can be performed based on comprehensive history and complete physical examination. Imaging tests are not warranted in most cases and should be limited to patients with trauma, positive neurologic examination or findings suggestive of systemic disease. Treatment of LBP is multidisciplinary which can prevent its transition from acute to chronic one and involves the introduction of anti-inflammatory medications, muscle relaxants, antidepressants, opioids and interventional injections to control pain, physical modalities and exercises to restore range of motion, improve muscular strength, endurance and general cardiovascular condition.

(395)
Cerebral Palsy Rehabilitation

Abdel-Fattah Al-Worikat MD (Jordan)

Cerebral Palsy: Is a static neurologic condition resulting from brain injury that occurs before cerebral development is complete ,during the prenatal, perinatal or postnatal periods.
It is characterized by motor impairment and can present with global physical and mental dysfunction.
It is the most common childhood physical disability and affects 2-2.5 children per 1000 born in USA.
The main kinds of motor disorders C.P are spastic, dyskinetic and ataxic paresis.
70-80% of C.P have spastic clinical features, 10-20 % have a thetoid or dyskinetic features and 5-10% have ataxic features with impaired balance & co-ordination. The goal of management is to increase functionality, improve capabilities and sustain locomotion, cognitive development, social interaction and independence. The best clinical outcomes result from early intensive management by multi disciplinary team approach. I will shidlight over the role of the rehabilitation team in C.P in general.

(396)
Role of Botulinum Toxin in Spasticity

Ibrahim A. Amayreh MD (Jordan)

Spasticity is a velocity dependent increase in muscle tone develops as a result of an insult to the brain and spinal cord. This can lead to costly and life-threatening consequences. The main indication for treatment of spasticity is when it interferes with passive or active movements, when it interferes with hygiene and when causing severe pain. To successfully manage spasticity, an interdisciplinary team incorporating pharmacological and non-pharmacological approach in a formal treatment plan in which the goals and the outcomes are stated and a greed upon by the treating team and the patient. Herein, patient assessment, goal setting and treatment planning will be discussed. The mechanism of action of botulinum toxin in treating spasticity, the evidence behind its use, such as when and when not to use it as well as the practical aspects of the treatment such as muscle location, the injection procedure and finally, the precautions and contraindications to the use of botulinum toxin.

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Prolonged Motor Stall after Magnetic Resonant Imaging (MRI) Scan in Baclofen Pump, Presented with Withdrawal Symptoms: a Case Report.

Srinivasa Budithi MD (UK)

Introduction: Spasticity in spinal cord injury patients is a challenging complication .Intrathecal Baclofen Pump (ITB) is increasingly used for refractory spasticity not responding to oral medications. Patients with spinal cord injury and implantable ITB may need to have MRI at any stage of the disease. MRI has been considered as a contraindication in any patient with implantable device, however, the better understanding of electromagnetic techniques and fields allow imaging to those patients. Exposure to MRI can interfere with pump function and can lead to a motor stall resulting in potential baclofen withdrawal complications. Motor stall can be reported as a loss or change in medication release causing pump alarm to sound.

Aim: We present a case of persistent motor stall following an MRI scan resulting in withdrawal symptoms.

Case Description: A 38 year old male patient, who is a known case of T5 paraplegia, ITB was inserted to treat his intractable spasticity in lower limbs. Abdominal MRI to investigate obstructive jaundice was done but the patient's device was not checked immediately after MRI study. The patient attended the clinic post an urgent appointment complaining of withdrawal symptoms mainly increased spasticity. In the clinic his physical examination showed spasticity grade three according to Modified Ashworth Scale of Spasticity. A critical alarm was heard in the clinic. ITB device event log review showed a motor stall that has occurred at the day of MRI study which is three months before without showing a motor stall recovery. The pump was reset succefully and the patient symptoms improved.

Result: Motor stall can occur after MRI study, and it can occur permanently with the consequences of pump malfunction and withdrawal symptoms, if the medication is baclofen these symptoms can be life threatening.

Conclusion and recommendations: Patients with implantable ITB devices who were exposed to a magnetic field, their devices should be interrogated to avoid potentially serious withdrawal complications that may develop after motor stall. Once motor stall event occurred, motor stall event recovery must occur to show that the pump retained its normal function.

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Improving Access to Assistive Technology

Dr.Ali Rjoub, Head of Dept. of PMR- Al-Bashir Hospital

Objectives assistive technology refers to assistive products and related systems and services developed for people to maintain or improve functioning and thereby promote well-being. It enables people with difficulties in functioning to live healthy, productive, independent and dignified lives, participating in education, the labor market and social life. It can reduce the need for formal health and support services, long-term care and the burden on carers.

Methodology Challenges in access to assistive technology include research and development, Standards and regulation, Manufacturing, Selection, pricing and reimbursement, Procurement and supply, Service provision and Health emergencies. Improving access required improvement in many aspects mainly: Policy, Products, Personnel and Provision.

Results and Discussion Jordan disability ratio is about 11% for people above the age of 5, with different causes. Although some assistive products are included in the health insurance system and certain databases are present for these purposes, there should be collaborative efforts from involved sectors under the umbrella of Ministry Of Health, in light of its comprehensive coverage Jordan, to reach a sustainable plan of supply and training of involved personnel, with support of the scientific research in this field. Also, it is important to emphasize on the importance of coordination with external funding skeletons to minimize the burden of refugee influx on the assistive technology supply /demand chain.

Conclusion there is a need to Improving Access To Assistive Technology in Jordan

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Epibole Causing Delayed Wound Healing in Trochanteric Pressure Ulcers in Spinal Cord Injury Patients

(Moh'd Rami) Al-Ahmar (MD), Mr Aheed Osman (MD)(UK), Mr Srinivasa Chakravarty Budithi(MD)(UK), Bara'ah Esa Alshagoor (MD)

Objectives We present a case series of trochanteric pressure ulcers where epibole resulted in delayed wound healing and is only localized to the anterior wound edge.

Methodology We studied four spinal cord injured patients with trochanteric pressure ulcers, who were undergoing non operative management. They were classified according to The European Pressure Ulcer Advisory Panel (EPUAP) classification. The healing process was monitored using Pressure Ulcer of Healing (PUSH).

Results and Discussion All the four patients studied had EPUAP classification Grade 4 trochanteric pressure ulcers. Gradual reduction of wound size was initially noticed in all four patients. The epithelialization was noticed only on the posterior edge. Lack of epithelialization was noted in the anterior edge due to epibole which contributed to delayed wound healing. Two patients were successfully treated with surgical excision of epibole wound edge and the other two are waiting for definitive surgical excision and closure procedure. Epibole is a recognized cause of delayed wound healing in pressure ulcers. The exact reason why this was only limited to the anterior wound edge in our case series is not known, but may be related to the presence of trochanteric bursa in that region. Surgical excision and closure are often required to stimulate healing process and achieve wound healing in these complex wounds.

Conclusion Identification of epibole and early institution of remedial measures are needed to achieve successful outcome in pressure ulcers.

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Hyperkeratosis Causing Delayed Healing of Pressure Ulcers in Spinal Cord Injury Patients: A Case Report

Bara'ah Esa Alshagoor (MD) Captain Military
Mr Srinivasa Chakravarty Budithi (MD), Dr Thuya Win (MD), Mr Aheed Osman (MD)

Objective: To present a case series of 3 patients who had pressure ulcer management at Midland Centre for Spinal Injuries from 2016-18 and had histological findings of keratinocytosis and hyperkeratosis.

Methods: The histological report of wound edges and time taken for wound healing after definitive wound closure were reviewed.

Result and discussion: Patient A withL1 Asia Impairment Scale(AIS)-A SCI had a left ischial pressure ulcerfor17 months with left ischium inflammatory changes withbony sequestrum in MRI.
Patient B withC7 AIS-BSCI had a sacral pressure ulcer for 5 years with soft tissue inflammation and marrow response within coccyx in MRI.
Patient CwithT12 AIS-C SCI had a right ischial pressure ulcer for12 months with erosive

changeswithin ischium withextensive soft tissue changes in MRI.

Management After wound debridement, it took 6 months for Patient's A wound to heal only with epithelialization over ischial tuberosity. However, it recurred within 4 months and has been ongoing for 14 months.
With Patient B, wound debridement and closure were done a week apart. It took 3 months to heal. Despite wound debridement and closure done a month apart, the Patient C's wound remained open. Debridement and closure were repeated another month later. It healed with secondary intention after 6 months.
Implications
The chronic pressure woundsmay need staged procedures but usually heal approximately 2 weeks after definitive closure surgery. However, all three patients studied had significantly protracted time for healing.

Conclusion: The presence of keratinocytes and hyperkeratosisin histology may have an association with delayed wound healing and poor surgical outcome.Further research is needed to evaluate the exact role of hyperkeratosis in delayed wound healing.

Key words: Pressure Ulcer, SCI, Keratinocytosis,Hyperkeratosis.

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Can we avoid complicated treatment plan options in orthodontic treatment?

Raed Helal Alrbata

Objectives Orthodontic treatment comprises a crucial demand for most of the patients attending dental departments at Jordanian hospitals. Young males and females are the most encountering groups at the orthodontic clinics seeking optimization of their extra and intra-oral esthetics with lesser concerns for the occlusion perfection details. Modern orthodontics has encountered the introduction of new methods and strategies to efficiently and effectively achieve the desired treatment results for both patients and orthodontists without utilization of complicated or undesirable options such as extraction of sound teeth or the need for orthognathic surgery. One of the main methods to do so is by the use of orthodontic microimplants. For this, we aimed in this clinical investigation to check whether these devices if properly used can aid in avoiding some of the complicated treatment options or not.

Methodology Multiple patients attending orthodontic clinics at royal medical services hospitals were chosen to receive the treatment by using orthodontic microimplants to at least reduce or eliminate the need for either extraction or orthognathic surgery to correct their malocclusion. The patients were having multiple dental and skeletal problems such as increased gingival exposure (gummy smile), skeletal anterior open bite, class II malocclusion and more.

Results and Discussion All cases showed satisfactory results for both the orthodontists and patients.

Conclusion Complicated treatment plan options in orthodontic treatment could be simply avoided. The use of orthodontic microimplants is beneficial in some of the cases that may need extraction or orthognathic surgery if the profile and facial proportions permit that.

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Cervical Cystic Lymph Node Metastasis: The Potential for Misdiagnosis

Ahmad A. Al Share, Mahmoud I. Al Balas, JB in General Surgery Abd Al Elah Al

Objectives This is a presentation of case series highlights the cautious interpretation of cystic masses in the lateral neck and how usual tools used to investigate these cystic masses can be misleading

Methodology Two cases are reported of a male and female patients in their early fourties. The sole presentation of the former was the occurrence of two cystic masses at different levels of lateral neck. The latter complained of dysphagia concomitant with a solitary cystic mass in the lateral neck. These masses were investigated by neck CT scans and fine needle aspiration cytology.

Results and Discussion CT scans revealed fluid filled cystic masses of round to oval shapes. Aspirates of the masses showed benign looking epithelium. Branchial cleft cysts diagnoses were

made based on those investigations. These masses were excsised and the final Histopatholgical examination revealed a metastatic carcinoma in both cases; one being a metastatic papillary thyroid carcinoma and the other being metastatic keratinized squamous cell carcinoma. Subsequent prompt investigation of the patients revealed papillary thyroid carcinoma in the former and an esophageal carcinoma in the latter.. Isolated cystic masses occurring laterally in the neck usually imply a benign leision. Branchial cleft cysts are headings in the differential diagnosis of these masses, especially if they occur in young patients. By contrast, cystic changes within a metastatic lymph node occurs infrequently and they mimic branchial cysts by virtue of their location and clinical appearance. Cystic lymph node metastasis was observed most commonly in the head and neck region lymph nodes, and they may occur in squamous cell carcinoma, especially of Waldeyer ring region, as well as in thyroid papillary carcinoma. Radiologically, these masses may show aspects similar to branchial cleft cysts. Furthermore, aspirates from those masses compose most false negative cases.

Conclusion Lateral neck cysts can be misleading, especially when they occur solitary and in young patients. There has been great resemblance radiologically between cystic lymph node metastasis and benign neck cysts. Further, the low cell density in fine needle aspiration is attributed to the high false negative results. The demonstration of such lesions should always prompt a careful examination for an occult malignancy especially in thyroids and Waldeyer ring.

(403)
Mucositis under Maxillary All-on-4 Implant-Fixed Prostheses

Ala' Ersheidat

Objectives To evaluate the extent and distribution of gingival inflammation around dental implants placed on the All on 4 concept

Methodology Intraoral photos of 14 patients treated with All-on-4TM maxillary prostheses were examined using ImageJ software to map the reddish inflamed areas. Prostheses fitting surfaces were stained with a plaque disclosing agent and analyzed using the same software. The extent of inflammation was analyzed and correlated to the percentage of plaque accumulation.

Results and Discussion The extent of inflammation beneath the prostheses was significantly higher on the palatal side of the ridge than on its buccal counterpart, however it did not correlate to the extent of plaque accumulation. Peri-implant inflammation on the mesial aspects of anterior implants and on the distal aspects of posterior implants was significantly more pronounced.

Conclusion The palatal side of the ridge, the mesial aspects of anterior implants and the distal aspects of posterior implants seem to be more prone to inflammation. Therefore, prosthesis design and oral hygiene instructions should take this point into considerations.

(404)
Interceptive Orthodontics in Preadolescent Patients.

Dr.Aseel Aref Al-Momani

Objectives The purpose of this presentation is a properly diagnose the need for management of the developing occlusion and to know the indications and contraindications of various interceptive measures, treatment modalities and appliances.
Methodology The lecture is divided into many parts including the definition,the aetieology,and some local factors with a panoramic radiograghs and some clinical cases and finally a conclusion. Results and Discussion We as an orthodontists,our interceptive treatment to any patient needs this type of treatment by doing a simple procedure can reduce the severity of a developing malocclusion or at least make the definte orthodontic treatment in the future more easier with less treatment time.

Conclusion These results indicate that interceptive orthodontic treatment is effective for improving malocclusion but does not produce finished-quality results. The use of such orthodontics can prevent and stop the occurrence of malocclusion leaving a beautiful arch and a confident smiling face.

(405)
A Novel in Vivo Method to Evaluate Trueness of Digital Impressions

Emad Ali Albdour

Objectives To introduce a new method to assess trueness of intraoral scanners and digital impressions in an in vivo clinical set-up

Methodology A digital impression using an intraoral scanner (Trios®, 3Shape, Copenhagen, Denmark) and a conventional alginate impression (CavexImpressional®, Cavex, Haarlem, the Netherlands) as clinical reference were made for two patients assigned for full mouth extraction. A total of 30 teeth were collected upon surgery after impressions making. The gypsum model created from conventional impression and extracted teeth were then scanned in a lab scanner (Activity 885®, SmartOptics, Bochum, Germany). Digital model of the intraoral scanner (DM), digital model of the conventional gypsum cast (CM) and those of the extracted natural teeth (NT) were imported to a reverse engineering software (3-matic®, Materialise, Leuven, Belgium) in which the three models where registered then DM and CM were compared to their corresponding teeth in NT by distance map calculations.

Results and Discussion DM had statistically insignificant better trueness when compared to CM for total dataset (p=0.15), statistically insignificant better trueness for CM when mandibular arches analyzed alone (p= 0.56), while a significantly better DM trueness (p=0.013) was found when maxillary arches were compared only

Conclusion Our results show that digital impression technique is clinically as good as or better than the current reference standard, but- according to American Dental Association specification #19 it does not match accuracy levels needed in highly accurate crown and bridge work

(406)
Flap Vs. Flapless Dental Implant Surgical Technique: A Comparative Prospective Study

Dr.Ahmad Mustafa Altarawneh

Objective: To compare the flap and flapless dental implant techniques regarding post operative pain, swelling, time of the procedure, preference of patients and the success rate.

Patients& Methods: Tthirty seven patients with hundred sixty eight dental implants inserted under local anesthesia. Eighty seven using the flap and eighty one using the flapless technique. The post-operative pain was measured using VAS (1-10), and the post operative swelling was measured using a self- reported evaluation and divided into mild, moderate and severe. The time was measured from thr beginning of raising the flap till the end of closure of the flap. Preference was report by patients and the success was evaluated by using a manual reverse torque of 20 N.

Results: Patients reported significantly post-operative pain and swelling. The time consumed for the flapless technique was significantly lesser than the flap technique. Most patients prefer the flapless technique and the flap technique has higher success rate.

Conclusion: Flapless implant procedure cause less postoperative pain and swelling, is less time consuming and so, is preferred by most patients. The flap technique achieved higher success rate. Flapless procedures should be performed by skillful operator on carefully selected cases.

(407)
Peri Implantitis, Prevention and Management.

Feras AL Qatarneh, Royal medical services, Amman-Jordan

Peri-implantitis considered a med or long-term biological failure ,it happens after
Ossiointegration of dental implant you may face it during gingival former placement or lately in the prostheses placement.
Peri-implantitis is something we should put it in mind before and not after implant placement, during patient selection ,treatment plan ,during surgery and follow-ups
In this lecture we will start with the definition, etiology, literature review and prevention protocols, then we will discuss treatment options of such cases, including rejuvenation of implant surface.
Clinical photos of cases seen in our department.

(408)
Arthroscopic Transosseous RC Repair is The Future?

Alessandro Castagna MD (Italy)

Transosseos technique was the original method of rotator cuff repair and is still recognized as the "gold standard".
The advent of arthroscopy, created the need to develop devices more adapted to arthroscopic repair including several types of suture anchors. Materials and techniques evolved over time in the attempt to maximizing contact area, optimizing contact pressure and in reconstructing the original anatomy.
The most evolved and recent multiple anchor arthroscopic technique was named "transosseous equivalent" (TOE) clearly indicating the attempt of mimicking the benefits of the traditional transosseous approach.
Recently transosseous technique became available to be done arthroscopically thus completing the evolution process in a closed loop.
Over the past several years papers have proven the advantages of the transosseous approach with the most remarkable findings including: optimal anatomical repair, reduction of the tendon-suture stress peaks, maximization of the tendon-bone contact area, optimization of the contact pressure at the interface, absence of hardware in the footprint and no risk of migration.
To properly understand how to optimize and maximize the transosseous repair stability several factors must be considered: depth of the tunnel, shape of the tunnel and controlling the pressure at the interface where suture-bone distribute forces over the repair. While a few of these issues are controlled by the surgeon many are directly related to the device used to create the transosseous repair.
It has been proven that having a rounded smooth tunnel is very beneficial in a dynamic environment (reducing the gap formation rate) and several papers have shown the optimal tunnel position on the lateral aspect of the tuberosity is in the range 10 to 30 mm. This is considered to be a safe area because the axillary nerve is reported to be more distal to this area.
The transosseous approach offers an endless number of configuration possibilities but basically we can divide these into two major categories: converging tunnels or parallel tunnels.
In order to account for osteoporotic bone problems, a lateral augmentation can be considered, providing a strong lateral fixation and exploiting the strength of the cortical bone a couple cm from the footprint area.
Transosseous therefore can still be considered the gold standard in rotator cuff repair and the possibility of combining arthroscopy and transosseous offer a unique combination of biological and mechanical factors that are the basis of an optimal repair.
It is also useful to think in terms of the future. To prevent a catastrophic situation in which a revision (due to a re-tear) is needed but the integrity of the footprint area has been altered by hardware implanted in the footprint.
The transosseous approach is not only the optimal way to revise anchors (it doesn't add additional anchors in the footprint and it can exploit the anchor tunnel in case of removal without further altering the tuberosity integrity) but it offers a more biological and anatomical way to repair and revise the cuff, leaving a fairly unaltered anatomy in case of future problems.

(409)
Medial Patellofemoral Ligament Reconstruction

Malek Ghnaimat MD (Jordan)

Recurrent patellofemoral instability is a common disabling condition especially in young individuals. The pathoanatomy of patellofemoral instability is multifactorial with risk factors including increased Q angle, ligamentous laxity, patella alta, small patella, trochlear dysplasia external tibia torsion. Biomechanical studies have shown that the medial patellofemoral ligament (MPFL) is the main restraint against lateral patella displacement and its reconstruction will restore patellofemoral stability in patients with recurrent patellar dislocation. Complications of the surgical techniques included restricted range of knee motion (mainly loss of flexion), patellar fractures, residual patellar instability and arthritis.
The surgical technique and our experience at thr royal medical services will be the objective of the talk.

(410)
Shoulders and Elbows that need rescue, Replacement and fixation at King Hussein Medical Center

Ghaith Abou-Nouar, Mohammad Alwan, Mahmoud Ataiwi

Objectives To share our results and experience in challenging shoulder and elbow cases of trauma and tumor managed according to international guide lines with state of the art procedures and implants, to demonstrate our results that are satisfying to both patient and surgeon according to international scientific standards. To clarify when to surgically intervene, how and with what regarding challenging shoulder and elbow cases of trauma and tumor in order to set an evidence based protocol regarding complex shoulder and elbow cases at our center .
Methodology Orthopedic surgeries have been carried out since the mid seventies at King Hussein Medical Center using different methods of reconstruction through procedures based on international guide lines, these strong basis and foundations aided our development as orthopedic surgeons at Jordanian royal medical services hospitals, enabled us to perform world class state of the art surgical procedures and to perform a retrospective comparison between our reconstruction surgical procedures done today with our older school reconstruction surgical procedures.
Results and Discussion Shoulder and Elbow reconstruction surgeries for our patients based on scientific selection of the method, approach and implant and according to many factors to be considered that are discussed in detail in our paper, showed good satisfying results for both patient and surgeon. Painless functional range of motion was noticed in almost all of our patients.
Conclusion Shoulder and Elbow complex cases treated according to orthopedic damage control protocol, and international guide lines for the selection of prosthesis implantation surgeries as the method of reconstruction for some of our patients versus fixation reconstruction surgeries for the others, taking into consideration patient related factors showed good satisfying results

(411)
Multidirectional Instability of the Shoulder: Myth or Reality?

Alessandro Castagna MD (Italy)

MDI what is it?
The classical definition of "multidirectional iinstability" (MDI) introduced by Neer and Foster in 1980 became after a betteru nderstanding of shoulder anatomy and biomechanics, very likely misleading to a confused interpretation of "increased capsular volume" of the gleno-humeral joint.
It should be better called a multidirectional laxity that is basically not a pathological condition.
Furthermore general laxity signs may not have any relationship to shoulder hypermobility.
Nevertheless the repetead overload related to some sport or work activities may create symptomatic clinical conditions due to some biomechanical dysfunction and/or minimal but significant structural lesions.
For these summarized reasons amny other definitions have been created to define a clinical condition of "symptomatic hypermobile shoulder" in the attempt to understand and treat an intriguing and still unclear condition.

Diagnosis: The diagnosis may be challenging both from clinical exam (unclear provocative tests, scapular dyskinesia, "impingement symptoms) and imaging (related to minimal anatomical lesions and the many variants typical in the shoulder)

Treatment: The management of "atraumatic multidirectional instability" (MDI) of the shoulder remain a challenge for the orthopaedic surgeon. As a general rule, these patients are young, active individuals with generalised hyperlaxity who develop symptomatic, recurrent glenohumeral instability in multiple direction. It's accepted that these patients should undergo surgical treatment only after the failure an adequate supervised rehabilitation program. If surgery appears the only left option our technical choice is arthroscopy that allows a complete and detailed evaluation of the intrarticular structures.
In the case of absence of any clear lesion (i.e. Bankart, anterior /posterior, ligament deficiency etc.) one of the options is to perform a "pancapsular plication".
Two or three portals are used (anterior-superior,

anterior-inferior and posterior). Abrasion of the synovial tissue with a rasp or motorised shaver is recommended to allow a better healing of this tissue. A suture hook is used to plicate the capsule, creating a 1 cm capsular fold to be plicated to the labrum. Multiple horizontal mattress or simple stitches with absorbable #1 suture are performed all around the capsule with intra-articular. knot tying in order to get a reduction of the "capsular volume2 and a "tensioning of capsule and ligaments".
If more significant lesions are detected they will be treated accordingly (i.e. suture-anchor Bankart repair)

Results of pancapsular plications: In the literature good results are reported with the pancapsular technique procedure.
We reviewed a series of 51 patients suffering about MDI operated with this technique between 1999 and 2000 at our Insitute: 27 female and 24 males with a mean age of 24,6 years (range 16-40). All these patients failed to improve with a long-time non-operative treatment. No patient presented an associated Bankart or a SLAP lesion at arthroscopic examination. In 10 cases (20%) also an intra-articular closure of the rotator interval was performed. It was always performed after completing anterior and posterior stitching and when the surgeon judged it as enlarged or torn. After surgery the patients worn a sling for 4 weeks and started a supervised rehabilitation program. Heavy physical activities was allowed at the 5th postoperative month. At a minimum follow-up of 4 years, 47 patients (92%) of patients was satisfied, and 4 patients (8%) complained of persisting pain and were unsatisfied. Two patients (4%) were reoperated because of recurrent instability symptoms about 1 year after previous surgery.

Conclusion: This surgical technique is quite reproducible and show mid-term good results, although many factors may influence the outcome starting with diagnosis and indication.
Techincal issues are questionable such as the degree of capsular tensioning that is necessary to obtain during surgery is difficult to appreciate. Further investigastions are necessary to elucidate about the causes of recurrence, and also about the factors responsible to induce pain at follow-up.

(412)
Anterior Cruciate Ligament Reconstruction

Malek Ghnaimat MD (Jordan)

ACL is one of the major ligaments in the knee preventing abnormal anterior displacement and rotation of tibia on femur. It is currently one of the most common orthopedic procedures in the world; about 175,000 ACL reconstructions are performed each year in USA.
With this high number of primary ACLRs and their success reaching 75-95%, there were ACL failure cases requiring revision. Causes of failure were many including traumatic, fixation method and biologic factors. Revision ACLRs was hypothesized to have the same good results while Several studies showed inferior results.
I will be talking about the causes of failure of primary ACL reconstruction and the principles of revision and the outcome.

(413)
Massive RC Tears: Treatment Options

Alessandro Castagna MD (Italy)

Rotator cuff tears (RCT) significantly influence the quality of life for patients and are one of the most common reasons for orthopedic clinic visits. Approximately 10% to 40% of all RCTs are massive (greater than 5 cm in size or complete detachment of 2 or more tendons) [1-3]. Each year in the U.S. approximately 4.5 million patient visits are due to shoulder pain, and the majority of them are associated with RC pathologies.

A substantial proportion of these tears are determined to be irreparable on evaluation [4]. Thus, massive irreparable RCTs present a challenging clinical problem for both patients and orthopedic surgeons.
Treatment options are several, meaning that none is the perfect one:

- Conservative tratetment with physio therapy and athroscopic debridement with biceps tenotomy, have been shown to reduce pain and improve quality of life [5,6].
- Partial RC repair also demonstarated a relative

efficacy in pain reduction and limiting the superior escape of he humeral head
- Biological scaffolds are used to enhance the repair or to reconstruct the superior capsule in order to provide humeral head "depression"
- Hemiarthroplasty (HA) and reverse total shoulder arthroplasty (rTSA), may result in better functionality achievements [7,8]. The latter is providing good results when arthtisi i s present in association of massive cuff tear
- Recent studies have shown that RTSA has the potential to achieve better functional outcomes compared with other treatment strategies [9].
- However, RTSA has been associated with higher complication and reoperation rates as well as greater costs [8,10].
- The InSpace™ technology system, commonly known as " balloon arthroplasty" , is a more recent development for massive RCTs [11]. InSpaceTM offers a minimally invasive surgical technique using a biodegradable subacromonial balloon shaped spacer implanted between the humeral head and acromion that enables frictionless gliding to restore shoulder biomechanics.

Choice of treatment should be taken considering many factors including:
- Patient age and general condition
- Functional demand
- Evidence of clinical outcome in the literalture
- Cost efficiency

(414)
Reverse Shoulder Prosthesis for Acute Fracture

Yousef .M. Khair MD, Ayman Mustafa MD, Royal Rehabilitation Medical center Royal Medical Services, Amman – Jordan Saeb AL mestarihi MD, Royal Rehabilitation Medical center Royal Medical Services, Amman – Jordan Ola Ibrahim Butros Haddad SN, Royal Medical Services, Amman – Jordan

Objectives Reverse shoulder arthroplasty is indicated in elderly patient who has comminuted (complex) fracture proximal humeral fracture, there is no need for having tuberosity healing to get good function and stable prosthesis. Also in elderly patient who has complex fracture humerus with poor bone stock RSA considered as a primary procedure rather than using hemiarthroplasty. RSA is designed to regain the mobility although there is loss of rotator cuff function. It is also used when hemiarthroplasty failed in management of fracture, forward flexion and abduction are allowed by the mechanical advantage that created by deltoid muscle for this reason it is contraindicated when there is axillary nerve injury. Despite RSA has many complications as instability,loosening, poor rotation and radiological notching but it is preferrable than hemiarthroplasty in elderly

Methodology Deltopectoral approach is used for performing RSA either lateral approach can be used by splitting deltoid muscle. In out department we performed deltopectoralappraoch, during RSA the humeruscongroity is changed to concave shape while the glenoid became convex. This changing in the congroity of the humerus and glenoid causing increase in the length of deltoid and increase the moment arm of deltoid by medialization center of the rotation which deacrease the importance of the rotator cuff function in elevation the upper limb. In our department we did RSA for few elderly patients who had fracture proximal humerus and we got a good results and the patients are very satisfied. They had a forward elevation and abduction and they can do their daily activities.

Results and Discussion RSA is a good choice when comparing with ORIF OR hemiarthroplasty in managment of comminuted fracture proximal humerus in elderly, by changing the congroity of the articular surface of the shoulder joint we got a good range of motion despite rotator cuff tear. It's advantage to decrease the immobilization and rehabilitaion which needed after the surgeru of hemiarthroplasty. There are many studies which compare between RSA and hemiarthroplasty show the benifits of RSA either in movement, pain scores, and the activities, while strength is better in hemiarthroplasty. Although there are many benifits for RSA but surgeons should be concious and worried about the RSA complications.

Conclusion RSA is a good choice to tres=at proximal humeral fracture in elderly and to get a good range of motion even if there is deficient in rotator cuff function, most of the patient had a good forward elevation of the upper limb in comparision with hemiarthroplasty

(415)

Shoulder Functional outcome after Latissimus Dorsi Muscle Transfer and Subscapularis Muscle Release in Children with Obstetrical Brachial Plexus Palsy

Fadi M. AlRousan, Firas suleiman MD, Razi Al Tarawnem MD, Sara sami al shekh RN

Objectives To evaluate the shoulder functional outcome in children with obstetrical brachial plexus palsy after performing latissimus dorsi muscle transfer and subscapularis muscle release.

Methodology this is a retrospective analysis to fifty patients with 52 shoulders underwent latissimus dorsi muscle transfer and subscapularis muscle release for obstetrical brachial plexus palsy, between June 2008 and April 2012. Reviewing patient's files and pre-operative videos. Mallet scoring system was used to evaluate the shoulder functional changes.

Results and Discussion Fifty children with fifty two shoulders with a ranging age between 18 months up to 13 years were involved in this study, 1:1 male to female ratio, the average birth weight was 3.89KG, the brachial plexus extent of injury were ranging from upper injury 80% to total palsy 20%. Regarding the affected limb the right side involvement was 60% the left side 36% and bilateral involvement was 4%.there is significant difference in the global upper limb function between younger age group(below five years) when compare to older age group(above five years of age). Five active ranges of motion around the shoulder joint involved in the injury were analyzed with the following functional outcome improvement: Global Abduction 46.6%, Global External Rotation 62.9%, Hand to neck 49%, Hand to spine 53.3%, Hand to mouth 57.2%

Conclusion we found that this type of surgery improves the global function of the upper limb in patients with obstetrical brachial plexus palsy, this improvement become less remarkable in older children(>5years of age). And the majority of patients and their families were satisfied by the achieved results.

(416)

Long Term Functional Outcome in Conservatively vs. Surgically Treated Non-displaced or Minimally Displaced Acute Scaphoid Fractures

Ayman Mustafa (MD), Yousef M. Kheir (MD), Saab Mestarihi (MD), Ahmad T. Al-Zoubi(MD), Ala A.A. Al-Maaitah (MD)*

Introduction: This retrospective study evaluates the long term functional outcome after conservative treatment of non-displaced or minimally displaced acute scaphoid fractures vs. surgical management by percutaneous screw fixation using an international validated outcome scale (the quick DASH: Disability of the Arm, Shoulder and Hand) score.

Methods and materials: Between 2014 and 2016 we have collected 80 cases of non-displaced or minimally displaced acute scaphoid fractures. Fifty patients (62.5%) were treated conservatively and 30 patients (37.5%) were treated surgically using percutaneous screw fixation. At 1 year of cast removal in case of conservative treatment and after 1 year of surgery in case of surgical management, the quick DASH questionnaire was filled by an orthopedic resident for all patients included in this study.
DASH score was calculated according to the type of management done.

Results: When comparing conservative vs. surgical treatment in this study (using the quick DASH score assessment), there was no significant statistical difference in long term functional outcome (P= 0.99).

Conclusion: This study shows no significant difference in long term functional outcome between surgical and conservative management of non-displaced or minimally displaced acute scaphoid fractures.

Keywords: Acute scaphoid fracture, non-displaced, conservative treatment, surgical treatment, functional outcome

(417) Argument for or Against: Early Mobilisation in Spinal Cord Injury

Srinivasa Budithi MD (UK)

Spinal cord injury (SCI) is a life-changing event for patients and their families. The initial management and subsequent rehabilitation is very important to achieve optimal neurological and functional outcome. The financial burden for the patients, family and health care system play an important part as there are variations in the health care delivery in different geographical areas.

The principles of management of spinal cord injury patients have come a long way in the last few decades. However, controversy still exists with regard to early mobilisation of these patients.

Proponents of non-operative management argue that active physiological conservative management in early stages helped achieve better neurological and functional outcomes. This is still practiced in some centres.

Advances in radiological imaging, techniques of surgical stabilisation of injured spinal column together with changes in demographics of injured population and health care systems resulted in a change in non-operative management. Surgical stabilisation and early mobilisation is fast becoming the norm for management of SCI patients.

While recent studies claim benefits of early versus delayed surgery, it remains to be seen if early mobilisation translates to better neurological and functional outcomes.

The aim is to present the rationale and balanced approach to the debate about early mobilisation in SCI patients.

(418)
How Should Spinal Displacement be Reduced In Case of SCI ?

J.M. VITAL (France)

1° - CASUALTY COLLECTION

First of all, the reduction of the spinal displacement has to be considered at the scene of the accident during casualty collection. If the collection is poorly performed, spinal displacements can be exacerbated and result in deterioration of the neurological status.

It is thus necessary to insist upon traction in the axis of the cervical vertebral column, which traction will always tend, regardless of the lesions, to enlarge the spinal canal.

The lateral position of security that can lead to uncontrolled movements of the head must be prohibited; the Haines position, which consists in placing the arm below the head in the lateral position, is not validated.

Consequently, the patient should be collected while applying continuous traction, immobilized by a cervical collar and placed upon stretcher; keeping the body and neck straight, before transporting the patient to the hospital.

2° - REDUCTION OF THE CERVICAL SPINE

The displacement is reduced by traction, using either a halter collar or, much more often, Gardner-Wells tongs, which are very easily placed under local anesthetic, without shaving. Gardner-Wells tongs equipped with a dynamometer are advantageous, because they obviate piercing the cranial inner table during tightening.

Traction in the axis aligns cervical burst fractures exerting tension upon the ligaments, particularly the posterior longitudinal ligament, and can also align "teardrop" avulsion fractures.

In cases of cervical dislocation, particularly bilateral dislocations, our team has reported 3 possible phases of reduction:

- The 1st phase of reduction is performed by traction without general anesthesia when the patient is received and as the diagnosis has been made; this traction is performed in slight flexion with a maximum weight that is equal to the weight of the head (4 to 5 kg) + 2 kg per level situated below the skull; this means that the lower the dislocation, the more traction can be applied, without exceeding 20 to 25 kg; which might risk worsening of the lesion of the spinal cord.
- If this traction, which is verified by X-rays performed after 2 hours, is unsuccessful, the patient should be taken to the operating room for the 2nd phase of reduction by traction under general anesthesia under fluoroscopic guidance with slight flexion of the head. Our team makes 1 or 2 attempts maximum, because this traction reaches 30 kg. When the dislocated facet joints are tip to tip, the proximal vertebral body may be pushed posteriorly.
- If the second phase fails to reduce the dislocation, we pass to the 3rd phase, the phase of open surgical reduction. In our

unit, we prefer using a conventional anterior cervical approach with discectomy, interbody distraction, and application of posterior pressure to the front of the proximal vertebral body when the facet joints are tip to tip.

These 3 phases of reduction (without general anesthesia, under general anesthesia, or by open surgery) always end by arthrodesis with use of an interbody graft and an anterior screw plate.

3°-REDUCTION OF THE THORACOLUMBAR SPINE

The primary problem is that of kyphosis, which is always improved by use of a bolster under the fracture to induce lordosis. This reduction is followed in most cases by decompression-arthrodesis surgery that is most commonly performed through a posterior approach. Reduction is achieved with the posterior fusion construct, which usually consists of screws and lordotic fusion rods.

CONCLUSION One should retain that reduction of spinal dislocations is the primary therapeutic act that can limit neurological injury, or at least prevent worsening of neurological injury. In our opinion, this reduction is more important for the related spinal cord injuries than the medical therapies that have been proposed and which, for the moment, have a low rate of success.

(419)

Physiotherapy Aspect of Early Vs Late Mobilization and Outcomes of Spinal Cord Injury

Chitra Kataria MD (India)

Spinal cord Injury has widespread consequences on many body functions, including bladder, bowel, respiratory, cardiovascular and sexual function. It also has social, financial and psychological implications, and increases people's susceptibility to late-life renal complications as well as musculoskeletal injuries, pain, osteoporosis and other problems. The treatment and rehabilitation period is long, expensive and exhausting in SCI. Whether complete or incomplete, SCI rehabilitation is a long process that requires patience and motivation of the patient and relatives. Traditional approach towards physiotherapy management of Spinal Cord injury was based on passive movements and prolonged bedrest. Early stabilization of the spine and early mobilization was not emphasized upon, especially in the case of complete Spinal cord Injury patients. This resulted in lengthier hospital stay, unwanted recumbence-related complications and poor prognosis of the patients.

Early treatment, prevention of associated complications and individualized patient-targeted rehabilitation programs provided by a specialized interdisciplinary team are crucial to optimize the outcome after SCI. Early mobilization is important to prevent joint contractures and the loss of muscle strength, conservation of bone density, and to ensure normal functioning of the respiratory and digestive system. Aggressive assessment and management of the secondary complications in the hours and days following spinal cord injury (SCI) leads to restoration of function in patients through intervention by a team of rehabilitation professionals. The number of days from the spinal cord injury to rehabilitation of the victim has significantly decreased. It means that the physiotherapy treatment begins when the risk of secondary trophic lesions, cardiovascular and respiratory complications is especially high. Patients with SCI are trained in the early stages for prevention or reduction of orthostatic hypotension, impaired ventilation, and pressure sores. Emphasis is laid on mobilization of all joints and prevention of any type of secondary complications, strengthening the residual muscles and increasing the functional independence of the patient. This approach makes it possible to influence the patient›s motivation for further recovery and decrease the duration of hospitalization in the intensive therapy ward. Active Rehabilitation of the patient is emphasized upon with focus on improving independence in daily activities, basic and advanced wheelchair skills training, transfers, wheelchair sports and recreational activities. The patient's independence is also enhanced by the use of the right assistive device and proper fitting wheelchair to avoid any secondary complications of prolonged seated posture.

This talk would emphasize on the transition from Late to Early mobilization and the physiotherapeutic benefits of the same.

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Maximizing Safety in Spine Surgery by Combining 3D Based Spinal Navigation with Pedicle Screws Stimulation

Abdul Karim Msaddi MD (UAE)

It is now well established that 3D based spinal navigation techniques improve the accuracy of pedicle screws placement and increase safety due to significant reduction of malposition complications.
Much less are the papers exposing the problems of radiation exposure during spine surgery and the benefits of associating 3D based navigation to intra operative monitoring
In this presentation we will show our experience in more than 120 patients operated for Thoraco-lumbar (from T10 as higher level) and lumbar spine with pedicel screws fixation, based on O-arm 3D navigation and verification of pedicle screws correct positioning by pedicle screws triggered EMG stimulation, followed by 3D scan (O-Arm or Body tom) intra operative confirmation of the accuracy of screw position.
Inclusion and exclusion criteria, the technique and results will be demonstrated in this presentation.
Our results showed high accuracy of 3D based navigation in P.S. insertion verified by triggered EMG stimulation and comparing-stimulation to final results with O-arm or body tom scanning. We implemented a protocol in our department If pedicle screws stimulation is normal (upto 10 mA). We don't repeat x-rays and we can avoid additional radiation to the patient and possibly to the OR staff. We do not perform anymore x-rays or 3D scan intraoperative.
Our study shows that using a protocol of routinely combining PS triggered EMG with O-arm based spinal navigation in may avoid a redo 3D scan or fluoroscopy in the majority of the patients without compromising the safety

(421)
Management of SCI at Spinal Unit, Royal Rehabilitation Centre (RRC), Jordan

'Moh'd Rami' Al-Ahmar MD (Jordan)

The only and the first main referral unit for spinal cord injuries in Jordan and many neighboring counties since 1983 is The Spinal Cord Injury Unit (SCIU), it is a part of the Physical Medicine and Rehabilitation Department at Royal Rehab Centre-King Hussein Medical Centre which is responsible for the diagnosis, treatment and rehabilitation of patients with spinal cord injuries.
A Multi-Disciplinary Team approach (MDT) ; doctors, nurses, physiotherapists, occupational therapists, social workers, psychologists, dietitians and others are provided by the unit to support the patients with full medical and rehabilitation program, treat emotional and social aspects, on the patient and his or her family as part of the team, in addition to a lifelong follow up service via the out-patient clinic and readmission to develop complications and intercurrent illnesses.

(422)
Interest of Lumbar Modic 1 signal

J.M. Vital MD (France)

In 1988, M. T. Modic, an American neuroradiologist, described a classification of lumbar discopathies on MRI performed in case of low back pain with:

- the Modic type-1 changes corresponding to an inflammatory lesion of the vertebral bodies close to the endplate (hyposignal in T1 sequence and hypersignal in T2 sequence) observed in 4% of the 474 patients of the series.
- the Modic type-2 changes corresponding to a fatty lesion (hypersignal in T1 and T2 sequences) observed in 16% in the series .
- the Modic type-3 changes corresponding to a sclerotic lesion (hyposignal in T1 and T2 sequences) observed in case of disk stabilization.
- The Modic 1 signal can be localized near intraspongious herniation or can be more extended in all the adjacent vertebral bodies or can be unilateral in case of asymmetric discopathy observed in degenerative scoliosis, asymmetric slippage in lytic spondylolisthesis, and unilateral foraminal compression.

There is a cascade of events to explain this inflammatory and painful signal: piston-like phenomenon due to disc failure, microfractures in the subchondral bone with endplate cracks, hypervascularization and increasing of proinflammatory mediators.
Many clinical series concerning Modic 1 signal conclude on regular incapacitating low back pain. There is a natural evolution of Modic 1 signal to Modic 2 signal (less painful) probably due to the

decreasing of the mobility of the disk observed after several months or years. An intermediate Modic 1/2 stage can be observed with fatty tissue near the endplates and inflammatory tissue peripheral to the inflammatory lesion.
Concerning the treatment, anti-inflammatory drugs, anti-inflammtory discinfiltration can be proposed.
Surgery, with anterior or posterior arthrodesis, typically gives good results with rapid evolution from Modic 1 to Modic 2 (in 6 months).
Finally, Modic 1 is a good indicator for surgery in chronic low back pain.

(424)
Anterior Surgery of Cervical Disc Herniation: Is it Reasonable in One-Day Care?

J.M. Vital MD (France)
O. Gille, V. Pointillart

One-day (or ambulatory) surgery is an important trend for all kinds of surgery, mainly for economic reasons. But the concept can be applied if risks are not increased and results are equivalent to those of conventional surgery. This one-day surgery integrates the fast-track care.
Ambulatory lumbar discectomy has been commonly performed for many years in the USA and more recently in France. One-level cervical discectomy with arthroplasty or fusion (ACDF) entails a risk of suffocating hematoma.
Since 3 years we have an experience of 30 cases of one-day cervical discectomy.
Selection was very strict: neck and arm pain due to nerve compression by soft or hard (osteophytes) herniation at one level with failure of conservative treatment.
Age must be less than 65 years, ASA score 1 or 2 (no more), and the neck not too short.
The most important is to operate the patient early in the morning to reserve a minimum of 6 hours of monitoring. In the literature, suffocating hematoma is very rare later than 5 hours postoperatively.
This is our series: 30 patients (14 females, 16 males), mean age: 45 (30-65) years, 15 ASA 1/15 ASA 2, level C5-C6: 15/level C6-C7: 15, mean operative time: 39 mn, transient drainage: 6.6%, 18 prosthesis/12 cages. We observed 27 good results and 3 average or poor results: one hysteric conversion with transient tetraplegia with no organic explanation, 1 case of severe postoperative neck pain, 1 severe dysphagia requiring one-night hospitalization.
In conclusion, one-day surgery works well in cases of cervical disc herniation if the indication is very selective, if the patient is motivated, if the surgeon is experimented and if the patient is adequately supported inside and outside the hospital.

(426)
Spinal and Pelvic Growth Cartilage: Clinical Applications

J.M. Vital MD (France)
A. Diméglio

From an embryologic point of view, it is important to note that the contained elements (medulla + nerves derived from the ectoderm) are formed before the containing elements (vertebra derived from the sclerotome, a mesodermic structure). This phenomenon explains the myelo-vertebral shift.
There are 3 primary ossification nuclei (central, neural, and costal) that appear during the 2nd and 3rd months in utero and 2 main secondary ossification structures.
The first is the neurocentral cartilage (NCC) situated between the centrum and the neural arch nuclei. This bipolar cartilage controls growth of the central canal; the end of this growth corresponds to the closure of the NCC at 5 years of age. We have demonstrated the asymmetric closure of the concave and convex NCC in infantile idiopathic scoliosis (earlier closure on convex side).
The other main secondary ossification structure is the marginal listel, situated proximal and distal to the centrum nucleus. The marginal listel controls the height growth of the vertebral body. In case of Scheuermann disease, this marginal listel is altered.
There are 2 growing peaks, before 5 years of age and at puberty, with specific endocrine landmarks (Tanner stages, menarche)
Growth may be evaluated clinically and radiologically (Greulich and Pyle, Saunders (hand and wrist), Sauvegrain (elbow), triradiate cartilage, iliac epiphysis (Risser)).
Next to spinal growth, it is interesting to describe thoracic growth and lung development. In case of early onset scoliosis, spinal collapse can provoke severe respiratory failure by a domino effect.

(427)

Clinical Relevance of Cement Leakage after Radiofrequency Kyphoplasty vs. Balloon Kyphoplasty and Diagnostic accuracy of fluoroscopy, radiography and computed tomography in detecting cement leakage in kyphoplasty

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Objectives Cement leakage is regarded as a typical complication of cement-based augmentation of vertebral fractures. The gold standard is balloon kyphoplasty (BK). Recent methods, such as radiofrequency kyphoplasty (RFK), must be compared with BK in terms of therapeutic success and complication rates. It is unclear whether the cement leakage rate in RFK is lower than with BK and whether this has any clinical relevance. On the other side it is unclear if cement application intraoperatively can be improved by using other techniques of visualization and which kind of postoperative imaging should be recommended to detect cement extravasation accurately. Therefore, the aim of our prospective clinical study was to compare RFK with BK with respect to cement leakage rates and associated clinical complications and if cement application intraoperatively can be improved by using other techniques of visualization and which kind of postoperative imaging should be recommended to detect cement extravasation accurately.

Methodology After prospective randomization, 100 patients (76 women and 24 men with an average age of 78.5 years) or 162 vertebral bodies were treated by BK (n=79) or RFK (n=83). We evaluated the parameters "localization of cement leakage" (epidural, intradiscal, extracorporeal, intravascular) and "clinical relevance". Furthermore, the objective was therefore to compare the rates of cement leakage detected by intraoperative fluoroscopy, postoperative radiography and postoperative computed tomography (CT) in our retrospective study.

Results and Discussion More cement is used in BK (5.2 ml) than in RFK (4.0 ml, p=0.001). Cement leakage was found in 48/79 patients (60.8%) with BK and 53/83 patients (63.9%) with RFK (p=0.420). Even sub analysis by location showed no significant difference between the two methods. Despite the high leakage rates, we experienced only two cases (1× BK, 1× RFK) with intravascular leakage in the inferior vena cava, with interventional endovascular salvage. Compared with CT, intraoperative fluoroscopy regularly detected intradiscal leakage (75%) but had a considerably lower sensitivity for visualizing epidural (21%), extravertebral (31%) and intravascular (51%) cement leakages. A comparison of radiography and CT showed that radiography had a high sensitivity for detecting intradiscal (82%) and intravascular (70%) cement extrusions, but a lower sensitivity in identifying epidural (42 %) and extravertebral (50%) leaks. Therefore, the CT scan convinced overall in detecting location and accuracy.

Conclusion The two examined kyphoplasty methods (BK vs. RFK) have the same high rates of cement leakage but are rarely associated with clinically manifest complications. Clinically relevant differences between the two compared kyphoplasty methods could not be found. CT convinced with the highest sensitivity and specificity, especially in detecting epidural, extravertebral and intravascular cement leakages. In order to receive the best accuracy only CT satisfies the demand of a complete information.

(429)

Total Knee Replacement after Tibial or Femoral Fractures around the Knee

Yves Catonné MD (France)

Total Knee Replacement (TKR) can be a good solution after a femoral or tibial fracture in different conditions : Rarely as the initial treatment of the fracture, most frequently as the treatment of knee osteoarthritis secondary to intra or extra articular mal union, nonunion or cartilage damages secondary to initial trauma. Between 2000 and 2015 we performed 71 TKR after distal femoral or proximal tibial fracture. There were 43 males and 28 females. Only 5 cases were recent fractures associated with pre-operative osteo-arthritis. In intra articular mal unions (41 patients) TKR using a long tibial stem and postero-stabilized implants was performed. In extra articular mal unions (22 cases) we used either an intra

articular correction, either a TKR associated with a femoral or tibial osteotomy in one time surgery (in intraosseous deformities over 10°). In 3 patients the gonarthrosis was associated with a non union : A TKR associated with osteosynthesis and bone graft was performed. Hinge prosthesis were used only in cases with severe ligamenteous damages (8 cases). We studied with a 3 to 18 years follow up IKS scoring, knee motion, knee stability and radiologicaly, HKA, tibial and femoral mechanical angle. IKS scoring is lower than in habitual TKR specially concerning knee motion. Complications consisted in deep infection (2 cases), stiffness, hematoma, phlebitis and extension lack. Revision surgery was necessary in 3 patients. Post-traumatic knee arthritis is a challenging condition. Prosthetic surgery is demanding and the risk of complications is relatively high.

(430)
Iatrogenic Ulnar Nerve Injury in Pediatric Humerus Supracondylar Fracture

Kamel Afifi MD (Jordan)
Hashem Qdhah MD; Abdallah Sallam MD.

Literature have suggested that medial pinning in pediatric supracondylar fracture leads to increased rates of ulnar nerve injury.
Between 1997-2017, in Jordan Hospital, 116 cases in children with Gartland supracondylar fractures were treated surgically using cross pin techniques. Postoperative follow-up revealed by 18 cases ulnar nerve injury with some sensory loss and clawing and tinneling. Five cases were surgically explored due to persistent clawing for consequent six weeks. It was found, that the nerve was in continuity with no apperant damage to its structure with only mild adhesions. Conservative follow-up to the other 13 cases showed full improvement without surgical intervention after three months.

conclusion, these observations and findings justify lessening the surgical exploration and observing the patients up to six months by cases with suspected ulnar nerve injury before surgery, unless EMG shows complete block.

(431)
Dual Energy CT as Innovative Technique for the Diagnosis of Fragility Fractures of the Sacrum - a Retrospective Study with Gold Standard MRI

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Objectives Insufficiency fractures of the pelvis (FFP) increase due to aging society. Their reliable diagnosis is mostly successful only with the gold standard magnetic resonance imaging (MRI) by edema detection. However, MRI is limited, expensive and may have certain exclusion criteria. As a promising alternative now appears the Dual Energy Computed Tomography (DECT). It is unclear whether this technique could be used with comparable sensitivity / specificity in the diagnosis of FFPs. The aim of our study was therefore to compare DECT with MRI in patients with suspected FFP.

Methodology 46 patients with suspected FFP were enrolled and received MRI and (DE)CT. There were three comparison groups: Conventional CT image evaluation without dual energy modification, DECT and MRI. FFP classification (Rommens) was made by a radiologist in random order and without clinical information. The sensitivities and specificities of conventional CT and DECT were calculated by comparison with the MRI control.

Results and Discussion With a sensitivity and specifity of 100%, DECT is equal to MRI in detecting fractures and superior to conventional CT (sensitivity 90.3%, specifity 100%). There were no differences in the classification using DECT and MRI. Conventional CT classified 16 patients differently than in MRI. For the first time we were able to show that edema detection, including the classifiability of FFP, is reliably achieved with DECT. Conclusion DECT combines the advantages of conventional CT (bone presentation, availability, costs) and MRI (visualization of bone marrow

space and occult fractures). Therefore DECT could replace supplementary MRI in addition to conventional CT.

(432)
The Sinus Tarsi Approach (STA) for Displaced Intra-Articular Calcaneal Fractures (DIACFs)

Abdullah Odah Alkhawaldah MD

Calcaneal fractures are one of the most common fractures, accounting for approximately 2% of all fractures, about 75% of calcaneal fractures are displaced intra-articular calcaneal fractures (DIACFs), which represent a serious injury. A better understanding of the debilitating nature of these injuries, combined with mprovements in surgical techniques and implants, has renewed interest in operative fixation in the past 15 to 20 years. The extended lateral approach has been considered the gold standard treatment for intra-articular calcaneal fractures. However, soft tissue complications remain a major concern with this open approach.
We use minimal invasive technique through the sinus tarsi approach (STA) with multiple fixation techniques To minimize soft tissue complications ,However STA still has some difficulties including the restricted view of fracture region, technical difficulties, and not all fractures can be done. we present some cases to show criteria we follow to utilize STA , tips and tricks we use to aid in reduction and fixation. and post operative management.

(433)
Aneurysmal Bone Cyst (ABC) of the Spine…..Case presentation and discussion

Asem Almajali MD, Amjad Alrashdan MD,Omar Bashmaf MD, Bara' Ali Ta'ani RN, Majida Nayf Abdalrazaq RN

The Aneurysmal Bone Cyst (ABC) is a rapidly-growing tumor of undefined neoplastic nature. It was first described by Jaffe and Lichtenstein in 1942 and It occasionally act as an aggressive benign lesion for which the treatment of choice is a complete resection, with the risk of Intraoperative bleeding.

Aneurysmal Bone Cyst (ABC) is a rare localized tumor of the long bones and spinal vertebrae. . This tumor can develop at early childhood and early adolescence with a slight female predominance It constitutes 1.4% of all primary bone tumors and about 14% of all primary spine tumors.

We will discuss a case of a female patient who was referred to our hospital 20 days after the primary diagnosis of spinal Tumor, with progressive paresthesia and muscle weakness of lower extremities that evolved to paralysis of both lower extremities and sphincter incontinence.

Clinical approach and the investigation done for the patient along with the surgical procedure Done for the patient will be discussed. As well as the follow up outcome.

Other non surgical treatment options also will be discussed.

(434)
Difference of Surgical Fixation in Humerus Condyles and Epicondyles Fractures in Pediatric Age

Mutaz Ghabashneh

Objectives Differentiation between surgical methods of fixation like rigidity and stability of fixation, Union rate, Procedure time, Rehabilitation time, Elbow stiffness and decrease range of motion post-surgery, Requirement of secondary surgical procedure.

Methodology two groups, first group fixation with Kirschner Wires (K.wire) and the other one with partial threaded screw

Results and Discussion fixation with partial threaded screws show more stable fixation, you can initiate early range of motion and higher union rate du to fracture compression but in the other view you need big piece of bone to insert screw and other surgical procedure for removal if required. Fixation with K.wire is good for using in avulsion of small piece of bone, faster procedure than screw and removal in clinic but less stable fixation, can't initiate early range of motion, and high risk of non-union.

Conclusion if you open the wound for reduction and find good piece of bone don't hesitate to

fix the fracture with lag screw according to our knowledge in articular bone fractures (anatomical reduction, rigid fixation and early range of motion) is our aim.

(435)
Incidence Rate of Surgical Site Infection in Orthopedic and Trauma Department at Royal Rehabilitation Center

Dr. Mohammad Aziz Al-Alwan MD, Dr. Gaith Abou-Nouar, Rayya Al Hadidi MPH

Objectives surgical site infection (SSI) is a challenging issue in orthopedic practice as it is difficult to treat and SSI increases the morbidity, mortality, patient stay in the hospital and the healthcare cost. Although orthopedic surgeries is categorized as clean surgery also under strict measures of aseptic techniques and sterilization but the SSI happened worldwide for patient who underwent orthopedic surgeries. Our aim from this study to compare the incidence rates of SSI at the royal rehabilitation center (RRC) and the literature.

Methodology We retrospectively analyzed 6352 patients who underwent orthopedic and trauma surgeries including upper limbs, lower limbs and spine surgeries at RRC between January 2015 – December 2017, our aim was to detect the occurrence of SSI post operation less than 30 days and more than 30 days as the definition of SSI, we exclude the patient presented with open fractures and the referred from other hospitals with SSI. The data collected from patient files records, operative note documentation, culture reports and laboratory tests and the infection control committee at RRC.

Results and Discussion We had 60 cases who had SSI of the 6352 cases. The SSI incidence rate in this study was 0.95 %, the SSI less than 30 days was 81.7% and the SSI more than 30 days was18.3%, with Male to female ratio was 1.6:1, the most frequent location of SSI was the lower limbs 78.4% then followed by the spine 13.3% then the upper limbs 8.3%. Post tumor cases were 10 cases (16.6%), post trauma 41 cases (68.3%), post elective surgeries were 9 cases (15.1%). The most common infective organism was Methicillin resistant staphylococcus aureus (MRSA) 26.7% then followed by pseudomonas 23.3% also we had cases with enterobacter 15%, acinetobacter13.3% E.coli13.3% and klibsilla 8.3%

Conclusion The study shows that the incidence rate of SSI in orthopedic and trauma department at RRC is comparable with the reported incidence in the literature, with the most common infective organism which is MRSA.

(436)
National Czech Republic Experience in Field Biological Hospital

LTC Michal Kroca (Czech)

Current capabilities of Czech Army biodefence system in in-field detection, monitoring and identification of biological agents will be described, including information from their development process. Different types of mobile and deployable labs and their range of analysis methods, detected agents, analysed sample types and possible usage will be explained. Experiences from involvement in different mission types and exercises will be mentioned, together with lessons-learned and their influence on further development of technologies, consumables and operational procedures.

(437)
Enabling the war fighter through alignment of joint and international medical capabilities across the Middle East Region: the US Central Command Surgeons Office

Jeffrey Calder, (USCENTCOM)

The United States Department of Defense coordinates activities across the world leveraging six regional Combatant Commands. The US Central Command (USCENTCOM) Headquarters based out of Tampa, FL is recognized as a premier warfighting Combatant Command that directs and enables military operations and activities with allies and partners to increase regional security and stability in support of enduring United States interests in the Middle East and Central Asian region. The USCENTCOM Surgeon supports this mission by enabling and preserving ready and resilient US and partner nation forces through optimized force health protection, health care delivery and tailored medical security cooperation. These efforts result in a more stable and capable

theater health sector measured by improved medical effectiveness and cooperation. This presentation will describe the three USCENTCOM Surgeon Theater Health Support Objectives and provide examples of how they are being implemented to enable the warfighter to achieve strategic National Military objectives.

(438)
National Biosecurtiy; Current Status and Future Perspective

Rame Khasawneh MD (Jordan)

Jordan considered globally a phenomenal country as it is located amid a boiling region whereas Jordan represents a peace oasis; much attributed to the visionary leadership and qualified human power Jordan is blessed with. Small country, very limited natural resources though not much population, the continuous influx of refugees over years and years represents one of the big challenges that have been faced on a daily basis. Economical and social impact of refugees are not less burden and impose no less threat than the security risk that had been or could be encountered. The threat of weapon of mass destruction is still very imminent, Jordan works hardly to foster, enhance and strengthen national capabilities and capacity in combating weapon of mass destruction of chemical, biological, radiological and nuclear threats through international collaboration and support. USA and Canada are the key players in this endeavor. The biological achievements in Jordan is a very successful story given the short period of time of the last 5 years, yet more efforts are needed to enhance our capabilities and fill our gaps. In this presentation, Jordan current achievements and challenges will be highlighted along with future plans and ambitions.
Keywords: Biosecurity, Biological, weapon of mass destruction

(439)
International and National Experience in Field Biological Hospital

LTC Michal Kroca (Czech)

In this presentation, Czech Army capabilities in management of patients with highly contagious diseases will be shown. Focus will be given on some limitations and gaps, that have been identified meanwhile. For deployable capability, current status of development and experiences from national and international exercises and cooperation will be described and discussed. Focus will be put on full-time biosafety and management of risk, technological challenges and required support in field conditions. Finally, possible applications and examples for deployment and use of such capabilities will be mentioned.

(440)
The Relationship between DM and Depression in Primary Care in Northern Jordan

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Abstract: Diabetes is a major health problem that affects 8.5% of adults worldwide, and 13.2% of adults in Jordan. Studies suggest a bidirectional relationship between diabetes and chronic depression. Diabetic patients are twice as likely to suffer from depression that is symptomatically worse when compared to nondiabetic individuals. Depressed diabetics suffer from poor glycemic control and increased risk of diabetes complications. Because little is known about the bidirectional relationship between diabetes and chronic depression in Jordan, we screened for depressive disorders among diabetic patients using the Patient Health Questionnaire-9 (PHQ-9) and screened for diabetes among depressed individuals by measuring their HbA1c, in a cross-sectional study design. A total of 146 diabetic patients (74 males, 72 females) participated in the study with a mean age of 56.05 ± 8.5 years. Almost 60% of participants were uncontrolled for diabetes (HbA1c ≥7%) with a mean HbA1c of 8.99% ± 1.74 and a mean PHQ-9 score of 6.22 ± 5.49. The remaining 40.41% were controlled for diabetes (HbA1c ≥7%) with a mean HbA1c of 6.10 ± 0.62 and a mean PHQ-9 score of 6.69 ± 4.53. The prevalence of chronic depression among diabetic patients was 27.4%. No correlation was found between PHQ-9 scores and HbA1c levels (Spearmen's r= -0.02576, p= 0.7576).

Additionally, 20 depressed individuals were recruited from the psychiatry clinic with a mean age of 41.7 ± 8.27 years, and were then screened for diabetes by measuring HbA1C levels. None of these was found to be diabetic. Five individuals were known to be pre-diabetic. The mean HbA1C was found to be 5.43% ± 0.41. In conclusion, our results thus far deny a relationship between depression and diabetes. However, our future plan of examining the effect of treating depression on glycemic control and diabetes complications, or the effect of improving glycemic control on the severity of depression, might improve our understanding of this relationship.

(441)
Using IT to Improve Jordan's Public-Sector Healthcare

Omar Ayesh (Jordan)

Objectives Jordan has one of the most advanced healthcare services in the region. Good e-health program can help in improving the services provided. In 2009, Jordan decided to invest in an effective and affordable health IT System by adopting the World's only fully comprehensive open source Health Information System VistA, developed by the US Veterans Health Administration (VHA) in all of its public sector healthcare system. The successful deployment of the national e-health program, Hakeem at 176 sites as part of integrating all of the public hospitals, medical centers and clinics, indicated that a clear strategy is available for the healthcare sectors in order to reach the goals of having such a program (NHS VistA, 2013, EHS 2018).

Methodology This study is based on strategic analysis of the existing system, the review of academic literature and the 28 years personal experience of the author at the Jordanian public healthcare sector. It will focus on the national e-health program (Hakeem) that is planned to cover all public hospitals and clinics in the kingdom.

Results and Discussion The use of proper IT system is very important to help in the success of the national e-health program that can allow stakeholders to provide healthcare services that are safe, efficient, effective, timely, evidence based, patient centered and equitable to all patients at any public hospital.

Conclusion One major step towards enhancing healthcare services is operational improvements with the objective of optimizing efficiency and containing costs, while improving quality of services. Operational measures would include expanding the use IT systems in the management of resources. IT is seen as a key enabler to improve healthcare processes due to its potential of providing rapid access to information at the point-of-care.

(442)
Public Health and Preventive Medicine Experience in Oman

Seif Al-Abri MD (Oman)

Public health service is one of the main core functions of the MoH Oman, the service has been established several decades ago and has developed substantially over the years. The service addresses the needs of the public health programs both for communicable and noncommunicable diseases.
The talk will cover the framework of the public health service in Oman with special emphasis on the integration of the public health services with the primary care service and clinical services in hospitals; it will also cover the new initiative of dismantling the vertical programs and the establishment of integrated services both at the central level in MoH HQ and at the districts level, and the establishment of integrated strategic plans for the main public health programs, unified electronic surveillance system, and the development of the central public health laboratory as a reference lab locally and internationally that serves the needs of the public health programs; it will also discuss the new move towards establishing the concept of "one Health" in a multi-sectoral approach.

(443)
Implementation of Antibiotic Stewardship in The German Armed Forces

Svenja Liebler,(Germany)

Increasing antimicrobial resistances are a worldwide problem and a global threat to our modern health systems because effective antibiotic substances are vital to prevent infectious complications after invasive procedures and

essential for the treatment of life-threatening infections.
To address the issue of emerging antimicrobial resistances, several programs have been initiated, for example the German DART 2020 Strategy, which focuses on infection prevention and Antibiotic Stewardship.
Antibiotic Stewardship means selecting optimal substances, dose and duration for a therapy to achieve optimal clinical outcomes, to reduce toxicity and other adverse events (e.g. C. difficile colitis) to reduce costs of health care and to reduce selection of antimicrobial resistant strains.
In concordance with national and international guidelines Antibiotic Stewardship programs were initiated in our military hospitals, beginning with Berlin in 2014.
To implement Antibiotic Stewardship "goup-wide" - not only in our hospitals - but also in military missions worldwide and in outpatient care the task force antiinfectives, resistances and therapy (AK ART) was established in 2017.

The goal is

- to develop evidence-based guidelines for therapy and prophylaxis with antiinfective substances in the military context,
- clinical pathways concerning infectiology and treatment with antiinfective substances,
- standards for the Central Drug Commission of the Bundeswehr concerning antiinfective substances and
- indicators of quality, which have to be documented in hospitals, in microbiology laboratoris and in supporting pharmacies for benchmarking.

Several Projects have already been completed, for example guidelines for the use of intravenous antibiotics by combat first responders in case of combat related trauma and guidelines for the use of oral antibiotics in case of moderate or severe "traveller's diarrhea" in deployed personnel, for example special forces, without possibility to contact specialized medical personnel.

(444)
Our Experience in Seasonal Influenza H1N1 in RMS

Hussein Abuzeid MD (Jordan)

Introduction: Influenza is a will known disease, which is preventable and may be fatale in a lot of cases. This disease has a lot of subtypes one of them is H1N1, and H1n1 may have a lot of shifting and drifting which make it so difficult to prevent it.

Methodology: a notice form for influenza suspected cases is who are admitted to ER is filled and a PCR test is requested for any suspected case by the responsible physician of the case, and the report is followed up by team of preventive medicine (doctor, nurse, health inspector), all reports are collected and followed up.

Results: for years 2017-2018 the results were 11 deaths, 146 patients took tam flu, 63 PCR positive tests, 44 PCR negatives, number of cases was 23 military 175 civilian patients.

Conclusion: influenza is challengeable seasonal preventable disease; vaccination is a good method for eliminating and reducing the severity of the disease.

(445)
Infection Control Experience in Oman

Seif Al-Abri MD (Oman)

Infection Prevention and Control is one of the core functions of any health service in any health system. Hospital acquired infections (HAIs) and antimicrobial resistance are considered to be one of the major global health security threats. MoH Oman has established an infection prevention and control service in all healthcare institutions in an integrated manner. The service has been built on the core functions of infection control services as outlined by WHO. Some of the major achievements of the program are the establishment of a diploma training degree for infection control, enforcement of code of practice for infection prevention and control services, the launch of multisectoral framework for antimicrobial resistance, and establishment of surveillance for HAIs and AMR, and making infection prevention and control chapter a core chapter of the national accreditation scheme.

(**446**)

Non-communicable Diseases in Jordan: Prevalence, Trend, Awareness, and Control

Yousof Kader,MD (Jordan)

Introduction

Studies have reported an increasing prevalence of non-communicable diseases in Jordan including type 2 diabetes (DM), hypertension, and dyslipidemia with the most dramatic increase occurring in developing countries. This study aimed to determine the prevalence of non-communicable diseases including type 2 DM and impaired fasting glycemia (IFG), assess their trend, and assess the awareness and state of control in Jordan.

Methods

Data were analyzed from a cross-sectional study in 2017 that included a random sample of 4056 Jordanians aged 25 years and above. DM and IFG were diagnosed according to American Diabetes Association definition. Other metabolic abnormalities were defined using international criteria. HbA1c >7.5% was defined as unsatisfactory metabolic control.

Results

This study included a total of 4056 persons (70.5% females and 29.5% males). The age-standardized prevalence rate of IFG was 21.6% among males and 19.2% among females and that for DM was 28.3% (95% CI: 25.5, 31.1) among males and 19.9% (95% CI: 18.1, 21.6) among females. The prevalence rate of DM increased significantly with increasing age peaking at age of 60-64 for both males (58.7%) and females (53.1%). In consecutive surveys (1994, 2004, 2007, and 2017) that adopted the same methodology, the aged-standardized rate of DM increased from 13% in 1994 to 17.1 in 2004 to 13.4 in 2007 to 22.3 in 2017. Of the 888 diabetic subjects, 768 (86.5%) had been previously diagnosed and 13.5% were diagnosed by the study team. Of the 768 patients who were previously diagnosed, 699 (91.0%) were on treatment; of whom 212 (30.0%) had good glycemic control. The prevalence rates of other metabolic abnormalities are alarmingly high with increasing trend over time.

Conclusions:

The prevalence rates of type 2 diabetes and IFG as well as other metabolic abnormalities are high in Jordan and increasing. More than two thirds of patients had diabetes with unsatisfactory control. Therefore, they are likely to benefit from programs aimed at encouraging behaviors toward achieving optimum weight as well as physical activity behaviors. Physicians caring for patients with diabetes may need to adopt a more vigorous approach for diabetes control.

(447)

Implementation and Evaluation of School Based Diphtheria Tetanus, and Measles Mump Rubella Vaccination Program in Military Education Schools in South of Jordan from (2015 - 2017).

Dr.sameer al daradkeh, Dr. Hussein Ismail Abu Zeid

Objectives This study will lead to improve immunization status and general health status, and evaluate the immunization program implementation and immunization status for MMR, Td, in health school programs in the military education schools in south of Jordan. Prevalence rate of MMR and Td vaccination in first and tenth grade will be calculated for the past two school years plus this year.

Methodology guided by evidence based approach to the status of immunization program in school students in south of Jordan, immunization card in the school health file in the registries will be reviewed for each student in first and tenth grad for the last two years, for the status of immunization by a member of the school health team (physician, nurse, health service inspector) and also vaccination for this year will be documented by the same team. Data will be taken from each school included in the health school program of south region of military health schools (there number is twenty four schools). Data will be collected within three months by team and analyzed manually to calculate the prevalence.

Results and Discussion For the last three years studied (2015/2016, 2016/2017, 2017/2018), there was progress in both vaccination coverage and physical examination coverage, for Td the coverage prevalence was (40%, 56%, 37.25%) respectivelywith a mean of 44.5%. And for MMR coverage the prevalence rate was (40%, 10.8%, and 4.37%) respectivelywith a mean of 18.39 % which is high percent of coverage. And for physical

examination prevalence rate was (89%, 87%, 91.6%) respectively,and the mean was 89.2% for the three years.

Conclusion: Diphtheria tetanus vaccine and measles mump rubella vaccination (MMR) rates are remaining in the marginal rates across the military education schools in south of Jordan. School health programs in south of Jordan are a yearly program which last for three months to improve vaccination status in the children who study in military schools in south of Jordan and that reflect positively on the health status of the southern population.

(448)
Surgical Treatment of Mal Unions after Fracture of Tibial Plateau: Osteotomy or Knee Arthroplasty?

Yves Catonné MD (France)

The operative management of tibial plateau fractures is challenging and complications can occur: Mal union, stiffness, infection are non-rare. Post traumatic arthritis is frequent and can lead secondarily to surgical treatment: tibial osteotomy (TO), Unicompartmental Knee Arthroplasty (UKA) or Total Knee Replacement (TKR).

Methods: between 2003 and 2015 we have treated 79 tibial mal unions secondary to tibial plateau fracture. T0 was performed in 31 cases, UKA in 4 cases, and TKR in 44 patients.
- The type of osteotomy depended on the type of fracture. Reaxation osteotomy was performed in axial malalignment: we prefer medial addition for varus deformity and medial subtraction for valgus knees. In mal unions secondary to Schatzcker 2 and 3 we performed an elevation osteotomy of the tibial plateau. After Schatzcker type 1 and 4, we sometimes performed an intraarticular osteotomy, technically difficult, described by R Judet in 1975. Elevation osteotomy can be associated with reaxation correction.
- UKA (4 cases) requires) important conditions: ACL integrity, strictly unicompartmental arthritis, good quality of the bone. TKR was performed in 44 patients, often a long time after initial surgery. A long tibial stem was used in all cases with postero-stabilized implants. In gonarthrosis with important extra articular deformities, TKR was associated with OT in one time surgery.
Indications depend on patient age, type of deformity, Ahlback arthritis stage, and arthritis localization (uni, bi or tricompartmental). The ideal indication of osteotomy is a non-union without or with unicompartimental arthritis in a young patient. In case of failure of the osteotomy, a TKR is always possible in a later time.

(449)
Difficulties in Total Hip Replacement for Patients with Osteoarthritis Secondary to Developmental Dysplasia of the Hip Joint

Jamal Suleiman Alshawabkeh MD (Jordan)
Ashraf Mohammad Jbarat MD
Heba Hassan Mohammed Al-Amody RN
Abedalrahman Na'eem Ali Al-Malkawi RN
Malak Ayman Muhammad Abu Shreekh RN

Background: Developmental hip dysplasia is the underlying diagnosis in a large percentage of young patients with complaints of hip pain and dysfunction. Although properly selected patients may benefit from nonarthroplasty surgical procedures, such as osteotomies, many patients with hip dysplasia require hip replacement surgery. To perform a satisfactory hip replacement for these patients, the surgeon should be familiar with the femoral and/or acetabular deformities resulting from DDH in order to comprehend the complexity of the procedure and execute it properly.

Methods: We discuss the various anatomical deformities associated with DDH and suggest options to take in consideration while executing THR to avoid common complications peculiar to this group of population.

Results: The severity of acetabular abnormalities correlates with the grade of dysplasia. In milder forms, the acetabulum is typically shallow, narrow, lateralized, anteverted, and deficient anteriorly and superiorly. Hip subluxation results in severe superior bone loss where the femoral head contacts and erodes the superior acetabular rim. In completely dislocated hips, the true acetabulum has a segmental deficiency of the entire acetabular rim, with a soft rhomboid-shaped fossa; the false acetabulum is formed on the thin bone of the ilium and covered by thickened joint capsule. On the

femoral side, the most commonly acknowledged changes in femoral morphology include a small, deformed femoral head with a short, valgus femoral neck that may be positioned in marked anteversion. The femoral canal is straight, with coronal and sagittal narrowing. Anteversion appears to be highly variable and not directly correlated with the severity of dysplasia.

Conclusion: When done properly, THR outcome in this sophisticated patient group would be satisfactory.

(450)
Total Knee Replacement, 20 years' Experience in Jordan Hospital

Kamel Afifi MD (Jordan)
Hashem Qdhah MD; AbdulQader Hdaib MD

Total knee arthroplasty is a common surgery in modern orthopedic practice. Reviewing previously done surgeries and their outcome aid in assessing the current protocol and its development.
Eight-hundred fifty-four cases of total knee arthroplasty were performed by multiple orthopedic surgeons in our institute in the period between 1998 and 2018. Three-hundred thirty-nine cases done by other surgeons were not included and retrospective analysis of 515 total knee arthroplasty procedures performed by one surgeon was done.
Most of the total knee arthroplasty surgeries (85%) were performed for female patients. The mean age of patients undergoing the procedure was 64.2 years overall with male patients undergoing the procedure at older age than females. Primary osteoarthrosis remains the most common indication for surgery (89%) and 16% of cases were done bilaterally but on separate occasions. Average follow up period after the surgery was 2.5 years. Post-operative complication rate was 1.7% regarding early and late complications.
This study shows that surgeries done in our institute, employing our protocol, are comparable to international institutions in regards to outcome and complication rates. Nevertheless, there is always a place for further modifications and improvements to optimize the care and reduce incidence of complications.

(451)
Failures after TKR: Revision Procedures

Yves Catonné MD (France)

There are many reasons why a TKR may fail and successful revision surgery depends on exact assessment of the cause of failure.
In any cases of painfull prosthesis we must have in mind the diagnosis of prosthetic infection. The analysis of fluid from the joint is necessary to identify the type of infection. When the infection occurs within 2 or 3 weeks of the original surgery, a debridement and washout procedure is possible. In late infection, removing implants is necessary with one or two times surgery. Adjusted antibiotherapy is necessary during at least 6 weeks
Loosening with or without osteolysis is the most common mode of aseptic failure. Revision surgery consist in changing loosed implants, often with long stem prosthesis, and restoring eventual bone loss. The generation of polyethylene wear and the development of osteolysis around total knee arthroplasty are caused by a combination of patient, implant, and surgical factors.
Revision surgery for stiff and painful knee is difficult: it often can be successful when a mechanical cause can be identified (malrotation, implant oversizing) Femoro-tibial instability (in varus, valgus or flexion laxity) is often the result of a bad ligament balancing. The revision have to balance the soft tissues or to use more constrained components.
Patellar complications (patellar instability or fracture) are often secondary to femoral malrotation, patellar maltracking or implant design.
In periprosthetic fractures, the diagnosis is often easy but the treatment difficult: simple osteosynthesis is sometimes possible, but revision of tibial or femoral components have to be discussed. Pain without a diagnosis is a bad indication to surgery. Unusual diagnoses such as iliotibial band or popliteus impingement may be considered, as well as metal allergy or pain coming from spine or hip. Each complication can come from different causes. A femoral malrotation can lead to different complications: stiffness, femoro-tibial instability, patellar dislocation.
When the complication is identified, determination of the cause(s) of the complication is necessary before revision surgery. Imaging (Scann, IRM) is very important to research a structural problem: malposition in the coronal or the sagittal plane, femoral or tibial malrotation.

(452)

Pediculated Suralis Flap Closure of Soft Tissue Defects associated with Infection of the Lower Leg

Arnold Suda MD (Austria)

Background: Soft tissue defects of the lower leg can be closed - following the reconstructive ladder - with a pediculated fasciocutaneous suralis flap, but a free flap is gold standard in most of the cases. Aim of the study was to evaluate complications, risk factors for failure and the reasonableness of this procedure.

Materials & Methods: 91 patients (92 flaps, 70 males, 21 females) with a mean Age of 55 years (16 to 87) were included in the study. The patients had mean four surgical procedures before the flap, the follow-up was mean 407 days. 70 patients were classified ASA I or ASA II.

Results: There were many complications, mostly wound healing Problems or hematoma. Only 40% of the patients received no Revision surgery, 71% of the flaps reached healing with Maximum two revisions (22% with one, 9% with two revisions, respectively). Necrectomy and new meshgraft were main reasons for Revision. Long term complications were swelling or disturbance of sensitivity. We lost seven flaps, eight free flaps were necessary. Three amputations were performed, but only one because of the lost flap.

Conclusions: All patients with lost flaps showed relevant comorbidities. 71% of the flaps healed with Maximum two revisions and the overall flap loss rate was 6%. The Advantages of this flap are short surgery time without the need of a microvascular anastomosis and a relatively simple surgical technique. The flap loss rate of 6% seems to be acceptable and, however, the flap is a good Option and an important step of the reconstructive ladder for soft tissue defect closure of the lower leg.

(453)

Outcome of Two-Stage Revision for the Infected Total Knee

Jamal Shawabkeh MD (Jordan)
Raed Al-Zaben MD, Balqees Suliman Alshwayat SN, Fares ali saleh alzyoud SN, Ayman Khalil Mustafa alzghoul SN.

Introduction: Infection in total knee arthroplasty is a devastating complication requiring the surgeon to weigh duration of symptoms, host factors, and the characteristics of the afflicting agent when devising a management strategy. Due to its well-documented success rate, most centers in the world prefer a two-stage revision strategy. This approach allows for higher likelihood of foreign material removal and eradication of the infecting pathogen. Although the success of single-stage exchange arthroplasty has been noted in the literature, its use should be relegated to a highly selective patient population. We report our experience with the treatment of infected total knee arthroplasties with a two-stage procedure.

Method: We have evaluated 28 patients with infected total knee arthroplasty between 2010-2017. Failure of treatment has been defined as recurrence or persistence of infection after the first attempt. The minimum follow up was 24 months (mean, 40 months; range, 24-83 months). Recurrent or persistent infection was diagnosed in four of 28 patients, two of whom were successfully treated with a third two-stage exchange arthroplasty. The infection healed in 86% of cases. Knee Society score questionnaires administered at the last follow up showed an average Knee Society knee score of 73 points (range, 24-100 points) and an average functional score of 49 points (range, 20-90 points).

Result: The data suggest two-stage exchange arthroplasty is a reasonable option for eradicating periprosthetic infection, relieving pain, and achieving a satisfactory level of function for some patients. The two-stage exchange procedure is recommended as the treatment of choice for infected total knee arthroplasty wherever possible.

(454)

Ligamentoumteres as Stabilizer Post Open Reduction Medial Approach for DDH (Royal Medical Services)

Ahmed almarzouq (MD, Hayder soudi (MD).Razi Altarawaneh (MD),Firas Alibraheem(MD).

Objectives To evaluate the effectiveness of ligamentoumteres as stabilizer post open reduction using medial approach

Methodology This is retrospective study evaluating 15 patients (22 hips) who were operated using medial approach after inability to reduce dislocated hips using close reduction or miss diagnosis in queen Rania hospital / Royal medical services between FEB 2016-MAY 2018,13 female ,2males and the mean age was 9 months(6-13 months). All patients were operated using medial (ludloff) approach by the senior author, ligamentoumteres was shortened and fixed more distally in all cases. Hip Spica was applied , CT was done immediately after patient recovered, patients were maintained in spica for 12 weeks then abduction splint was applied for another 6 weeks, mean follow up time was 18 months.

Results and Discussion All patients except 2 patients (who needed revision using anterior approach) were found to have reduced hips. 1 hip subluxation which needs secondary procedure, 2 cases of avascular necrosis of femur head were found, no blood transfusion were needed during or post operatively

Conclusion this study shows that ligamentous teres can be used as stabilizer for infant hip after open reduction by medial approach but still longer follow up is needed to document final results and complications for this procedure

(455)

Femoral Head Avascular Necrosis after Treating Developmental Dislocation of the Hip by Pavlik Harness

Razi Altarawneh MD, Fadi Rousan(MD), Ahmed Almarzouq(MD), Haidersoudi(MD), Ashraf Otoum(MD),Feras Al-Ibrahem(MD)

Objectives To evaluate the development of avascular necrosis of the femoral head after using Pavlik harness as the main device to treat developmental dislocation of the hip (DDH) before the age of 6 months

Methodology This is a retrospective study to evaluate 74 patients diagnosed to have developmental hip dislocation before age of 6 months treated using Pavlik harness in RJRC between March 2012- May 2015, patients had at least follow up for 31 months, patients had regular follow up by clinical exam and X-Rays.

Results and Discussion In our study we had 51 females and 23 males a ratio of 3:1, 49 patients had a successful reduction of the hip(s) out of 74 patients giving a success rate of 66.2%, 8 patients out of the 49 who had a successful reduction of the hip(s) developed avascular necrosis of the hip(s) 16.3%. The 25 patients who had a failed treatment were excluded because the treatment of Pavlik harness was discontinued and other methods of treatment were carried accordingly

Conclusion The use of Pavlik harness for the treatment of a developmental dislocation of the hip has a good rate of success in patients under the age of 6 months, yet it carries a potentially preventable high rate of avascular necrosis of the femoral head. We advise that it should be managed by a team of the most senior pediatric orthopedic surgeons.

(456)
Do and Don't in Neuroendoscopy

Nidal Khasawneh MD (Jordan)

Objective: Neuroendoscopy is a corner stone in minimal invasive surgery in the field of neurosurgery. It is an alternative to shunts in different types of cranial pathologies.
The learning curve is Slow but progressive. Accumulative Knowledge and experience is a characteristic of neuroendoscopy.
In this paper we present our experience with neuroendoscope at King Hussein Medical Centre. In this paper we present our experience focusing on do and don't in indications for surgery, procedures and technique, and complications avoidance.

Methods: During the last 14 years 518 cases were operated on using neuronendoscope, at King Hussein Medical Centre.
420 cases of hydrocephalus. 98 cases of; arachnoid cyst (54 cases), tumour biopsies (34 cases), and craniopharyngioma (10 cases). Procedures and cases are described.
The 420 cases of hydrocephalus included the following aetiologies; 192 cases congenital aqueductal stenosis, 125 cases secondary to brain tumor,21 cases secondary to intraventricular bleeding, 49 cases with shunt failure (20 cases infection and 29 cases shunt obstruction), 33 cases of complicated hydrocephalus (15 loculated hydrocephalus, 12 septated hydrocephalus and 6 cases of isolated ventricle.).

Results: The mean age for the cases was 2.5 years (7 days to 66 years).
Procedure was successful in 83% of congenital aqueductal stenosis, 80% of brain tumour, 37.5% secondary to intraventricular bleeding, and 68.4% with shunt failure.
For complicated hydrocephalus unification of the ventricle and fenestration of loculation was achieved in all cases.
The four cases of craniopharyngioma were operated on as a recurrence and the cysts were aspirated, fenestrated and a reservoir inserted. Tumour biopsies were diagnostic in 88% of cases.

Conclusion: The experience with neuronendoscope suggests a positive effect on reducing invasiveness of surgery and thus reducing complications rate, intensive care stay, hospitalisation, and operating time which indeed reflected on surgery outcome and patient's morbidity.
Through this presentation our experience will be presented in the form of things we learned to do and not to do.

Key words: neuronendoscope, hydrocephalus.

(458)
Spinal Cord Lipoma experience at KHMC

Nidal Khasawneh MD (Jordan)

Objective: To evaluate and present our experience in surgery for spinal cord lipomas. Describing a new endoscope assisted technique in surgery.

Methods: The epidemiology and results of management of 95 consecutive children with spinal cord lipomas treated over the period of five years (2001-2016) at King Hussein Medical Centre were reviewed and analysed.
A novel technique was introduced to surgery where the neuro endoscope was used to achieve more radical resection of the lipomas.
Results: Although all 95 patients underwent un-tethering of the spinal cord, the nerve roots passing through the lipoma itself and the neural tissues protruding externally to the spinal canal, respectively tended to prevent satisfactory surgical removal of the lipoma in combined type lipomas and lipomeningeomyelocele. During 9 years of a mean post operative follow-up period, there was no significant deterioration in most of the patients and some patients even improved in function. However, two patients with combined type lipomas developed neurological deterioration just after surgery, and five (two dorsal, two caudal, and one combined type lipomas) did in the fashion of a late-onset.

Conclusions: There are two different patient groups of lumbosacral lipomas; one group (caudal and filar type lipomas, and most of dorsal type lipomas) in whom the surgical anatomy is simple and satisfactory untethering surgery could be done without risk.
The other group (combined type lipomas and lipomeningeomyelocele) in whom surgery would be accompanied with some risk and sometimes complete untethering could not be achieved because of the complicated anatomy of the

lesion. Surgical difficulty of the latter group can be correlated with increased frequency of neurological deterioration occurring just after the operation, but not of delayed one.
Concerning prophylactic surgery for asymptomatic patients, the former group of patients are obviously good candidates, but the latter group is not.
The use of neuro endoscope as auxiliary to microscope surgery did reduce the risk of surgery by offering better visualisation of the lipoma, clarified anatomy, and made radical resection more plausible.

(459)
Spinal Meningioma-Histopathology & Inferences

Alqroom Rami, Alshurbaji Duaa, Fayyad Luma, Shaban Firas, Alsaudi Baker, Al Shurbaji Amer,.

Objectives: This study highlights the histopathology, demographic features, clinical presentation and management.

Methodology Patients and Methods: A retrospective review was performed for 87 consecutive surgically treated patients with spinal meningiomas treated in our setup in a single centre over a period of 15-years from January 2000 to January 2016. With a mean follow-up of 37 months (ranging from 14 to 149months).The clinical diagnosis was supported by radiological studies (CT scan, MRI…) in all patients and confirmed by histopathological reports. Clinical, radiological and histopathological data reviewed and analyzed.

Results and Discussion: In a cohort of 87 treated patients, the majority were women (70), representing 80.5% of patients. The mean age was 50.4 for women, and 49.9 for men. The Mean follow-up was 37 months (14-149 months). Demographic features detailed in Table 1. Clinical presentation: Neurogenic pain in 78.2% of patients, neurological deficits in 34 persons (39.1%) was found during preoperative neurological examination. Radiological examination showed that all lesions were intradural with predilection to the thoracic spine 63.2%. Surgical results were complete excision in all cases except one, 10.3% Complication rate. Histopathological examination showed all the specimens to be of grade WHO-I meningiomas, except in 3-cases 3.4% found to be grade who-II.

Conclusions: This is a retrospective study of spinal meningioma with a long-term follow-up. Being an uncommon disease entity with a discrete pathology and symptomatology. This study provides a representative review due to an adequate number of cases and a sufficient follow-up. The results of our study are in line with the reported literature in terms of epidemiology, histology, clinical manifestations with minor differences.

(460)
Foramen Magnum Meningiomas Classification and Surgical Management

Dr. Raed M Aljubour, Amani Ali Alhadidi, R.N.

Objectives Foramen magnum meningiomas (FMMs) are rare meningeal benign tumors in 85% of the cases. We report a classification system based our study on worldwide experience and the royal medical services experience in surgical management. Foramen magnum meningiomas represent a common histological tumor in a rare and difficult and sensitive location. In this study we showed the clinical presentation, important anatomical structures of the foramen magnum space, neuroimaging features, surgical approaches for resection, and outcomes.

Methodology In the surgical resection of foramen magnum meningiomas, the surgical corridor involves the space between the lateral margin of the medulla oblongata, spinal cord and the medial aspect of the occipital bone condyle. The main factors to decide the approach are the compartment of the tumor, tumor dural insertion, and the vertebral artery attachment to tumor

Results and Discussion foramen magnum meningiomas resection were associated with a surgery-related mortality rate of 4 to 9% and morbidity rate of 25%. The intra dural compartment (94.4%) and extradural is less frequently (2.8%) or both intra-extradural. (2.8%). FMMs were divided into posterior (5.8%), lateral (54.8%), and anterior (39.4%). Lower cranial nerves were shifted above in FMM growing below the vertebral artery position cannot be suspected in other situations.

Conclusion foramen magnum meningiomas resection were associated with a surgery-related mortality rate of 4 to 9% and morbidity rate of 25%. The intra dural compartment (94.4%) and extradural is less frequently (2.8%) or both intra-extradural. (2.8%). FMMs were divided into posterior (5.8%), lateral (54.8%), and anterior (39.4%). Lower cranial nerves were shifted above in FMM growing below the vertebral artery position cannot be suspected in other situations. Foramen magnum meningiomas (FMMs) classification system helps surgeons to do the best surgical approach but also for anticipating the position of the lower cranial nerves and therefore for decline the surgical complication. The clinical results for foramen magnum meningiomas at Royal medical services are within the developed countries multi-centric range in morbidity and mortality.

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