تحت رعاية

عطوفة مدير عام الخدمات الطبية الملكية

اللواء الطبيب معين سلامة الحباشنه

تقيم المهن الطبية المساندة اليوم العلمي

الرابع

Allied Health Professions

The 4th Scientific Day

23rd Aug. 2017

المهن الطبية المساندة تطور وانتشار

مستشفى الأميرة هيا بنت الحسين العسكري

جرش & عجلون

٢٣ آب ٢٠١٧

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His Majesty
King Abdullah II Ibn Al Hussein

His Royal Highness
Crown Prince Al Hussein Bin Abdullah II

كلمة مدير المهن الطبية المساندة

بسم الله الرحمن الرحيم

سيدي عطوفة مدير عام الخدمات الطبية الملكية الآكرم،،،
اصحاب السعادة والعطوفة....الزميلات والزملاء الآكارم،،،

انه لمن دواعي فخري واعتزازي ان ارحب بكم في مستشفى الأميرة هيا بنت الحسين ونحن نفتتح اليوم العلمي الرابع لدائرة المهن الطبية المساندة والذي جاء استكمالاً وتتويجاً لأيامنا العلمية السابقة التي رسخت قيم التعليم الطبي المستمر لما له من أثر بالغ في التطور والتطوير الذي تشهده مرتباتنا في كافة الصنوف المهنية والطبية.

سيدي ها نحن اليوم نستلهم فكر جلالة القائد الاعلى للقوات المسلحة الاردنية ونطبق رؤية القيادة العامة للقوات المسلحة الأردنية وتوجيهات عطوفة مدير عام الخدمات الطبية الملكية لنقيم يومنا العلمي هذا ، ايمانا منا بأهمية توسيع قاعدة المشاركة والتشارك وإيصال المعلومة لزملائنا في المستشفيات الطرفية.

سيدي إن مديرية المهن الطبية المساندة بجميع تخصصاتها تُمارس دورها الريادي في كافة المستشفيات الطرفية تحت إشراف ومتابعة يوميه حثيثة من مديريتنا في مديرية الخدمات الطبية الملكية من خلال رؤساء الإختصاصات ورؤساء الشعب والزيارات الميدانية المبرمجة حتى نكون عند ثقة الوطن بنا في تقديم خدمة طبية ومهنية وحتى تُمارس مرتباتنا عملها في جو يسوده الثقة والاطمئنان.

سيدي ان عدد الاوراق العلمية المقترحه 30 ورقه علمية من كافة التخصصات في المهن الطبية المساندة و5 ورش عمل على هامش اليوم العلمي ... اسمح لي سيدي أن اشكر باسم عطوفتكم جميع مرتباتنا في مستشفيات ومركز الخدمات الطبية الملكية على الجهد العظيم والروح المعنوية العالية والكفاءة الطبية والفنية المتميزةوما كانت هذه القيم لتكون لولا رعاية جلالة مليكنا المفدى عبدالله الثاني بن الحسين المعظم.

ومكارمه التي لا تنضب ودعم القيادة العامة للقوات المسلحة الاردنية وتوجيه عطوفتكم الدؤوب وحرصكم ودعمكم وتوفير كل متطلبات النجاح لنا قادة ومرتبات.

ولا بد لي سيدي ان اشكر كل من ساهم في انجاز وإنجاح يومنا العلمي هذا ، من شركات داعمين واصحاب الفضل والجهد مرتبات وقيادة مستشفى الاميرة هيا بنت الحسين وركن التوجيه المعنوي على توفير كل مستلزمات النجاح.
ولا ننسى ان نحيى اللجان القائمة على جهودها المشكورة لإعداد هذا اليوم العلمي المميز.

وأخيراً وليس أخراً لقد تتوج نجاحنا هذا بحضوركم ورعايتكم الكريمة.

فلكم مني ومن جميع مرتباتنا الشكر الموصول والعمل الدؤوب لنكون دوما عنوان نجاح ومشروع تميز
و السلام عليكم ورحمة الله وبركاته،،،

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Opening Ceremony

Time	Wednesday 23 August 2017	
9:00 - 9:05	Royal Anthem	السلام الملكي
9:05 - 9:10	Recitation from the Holy Quran	ايات من الذكر الحكيم
9:10 - 9:25	Video Show	عرض فيديو
9:25 - 9:30	Director of Allied Health professionals Brig. General: Mohammed Wael Abu Ghoush	كلمة مدير المهن الطبية المساندة العميد محمد أبو غوش
9:30 - 09:45	Director General of the Royal Medical Services Major General Muin S Al-Habashneh	كلمة عطوفة مدير عام الخدمات الطبية الملكية اللواء الطبيب معين حباشنة
09:45 - 10:15	Opening of the Exhibition and Coffee break	افتتاح المعرض واستراحه قهوة

Workshops

No.	Specialty	Title	Date	Hall
1	Physical therapy	Manual therapy	10/08/2017	Physiotherapy department
2	Nutrition	Medical nutrition therapy for pregnant And lactating women	29/08/2017	Prince Hamza Auditorium
3	Medical lab. Technology	Drugs Resistance	10/08/2017	Princess Iman Lecture Hall
4	Physical therapy	Spinal cord occupational therapy rehabilitation and mechanical lumber pain management	15/08/2017	Prince Ali hospital Hall
5	Radiology	Mammogram Imaging–physics& position	24/08/2017	King Hussein medical center

Hall A : Session one
Medical laboratory science

Moderators: Mohammed M. Nmarneh MT, Firas Okkeh MT

Time	Title and Speaker	Page No.
10:15-10:35	Introduction on Wondfo Biotech with Products Briefing. Mr. Mazen Attieh ,Executive Director/ LifeLine Technologies	
10:35-10:45	Common Microorganisms Isolated From Nail Culture in Microbiology Department at Princess Iman Center. Ohoud B. Al SawaearMT .	20
10:45-11:00	JAK-2 Mutation Correlation with Platelets Activation and Thrombotic Complications in Myeloproliferative Neoplasms. Manal N. Alabbadi MT.	21
11:00-11:15	The Relationship Between ABO Blood Groups, Factor VIII (FVIII) and Von Willebrand Factor (Vwf). Rasha F. Al-Ghraib MT.	18
11:15-11:30	The Relevance of Galactose-1- Phosphate Uridyl Transferase (GALT) in The Diagnosis of Galactosemia at King Hussein Medical Center. Zain Abou-Nouar MT.	17
11:30-11:45	Identification of Silent B-thalassemia Mutation, (Six Years Experience at Princess Iman Research and laboratory Sciences Center in Jordan). Eiman Mashaqbah MT.	16
11:45-12-15	Coffee break	

Hall A: Session Tow
Nutrition

Moderators:Mohamad H.Twalbeh NUT.ENG , Ahmad N. Zraigat MSC NUT.ENG

Time	Title and Speaker	Page No.
12:15 - 12:30	Comparison Between Fat Percentages With Body Mass Index Using Body Composition Analyzers For Patients at Al Hussein Hospital. Firas Bani Salameh MSC Nut. Eng.	28
12:30 - 12:45	Effect of Lifestyle Practices and Cultural Dietary Habits on Abdominal Obesity and The Risk of Type 2 Diabetes Mellitus in Jordan. Malek Mohammed Al-zghoul MSC Nut. Eng.	30
12:45 - 01:00	The Relationship Between (INR) Value and The Consumption of Rich Vitamin (K) Foods Among Cardiovascular Patients Taking Warfarine Drug . Alaa S Sbou Nut. Eng.	31
01:00 - 1:15	Dietary Supplements. Ghaydaa Bqaeen Nut. Eng.	29
01:15 - 01:30	التقنيات المستخدمة في تحليل مكونات جسم الانسان وتميز تقنية الممانعة الكهربائية فيها (**InBody**) . م. محمد الترك / شركه المهندسون العرب	
1:30-2:30	Lunch break	

Session one : Hall B
Radiology

Moderators: Eman Qabaey RT, Omar Harahsheh RT

Time	Title and Speaker	Page No.
10:15-10:35	Full Field Digital Mammogram . Ghoroob I. Alamayreh ,Fujifilm Company	
10:35-10:50	The Values of TRANCE(Triggered Angiography Non Contrast Enhanced)MR Imaging in Patients With Renal Insufficiency. Amer Malkawi RT.	34
10:50-11:05	The Effect of Using PET-CT Fusion on Target Volume Delineation and Dose To Organs at Risk In 3D Radiotherapy Planning of Patients With NSSLC, Rana Rawajfe RT	37
11:05-11:20	The Effect of Body Size and Age on Bone Density Test Results For Children. Kassab Salem Al.Slaity RT	36
11:20-11:35	Digital Radiography in King Husain Medical Center. Nada Abdel-Majid Ebbini RT.	33
11:35-11:45	Which is Better To Discover Renal Stones in Adult Patients Renal Ultrasound or Renal CT scan? Sulaiman Talal Hindawe RT	35
1:30 - 2:30	**Coffe break**	

Scientific Day Program

Session Tow : Hall B
Biomedical Technology, Medical Laboratory Science

Moderators: Abdalelah Alsyoof BMT, Moath Alqaisy MT.

Time	Title and Speaker	Page No.
12:15-12:30	The Effect Of Using Safety Switches On Operating Table. Mohanad Al-Azaydeh BMT	39
12:30-12:45	Water Quality In Hemodialysis. Ali Ayal-Salman BMT.	38
12:45-1:00	Association Between Prolactin-1149G/T Gene Polymorphism, Anti Ccp Antibodies And Rheumatoid Arthritis Among Jordanians. Arwa Yousef Alaqeel MT.	19
1:00-1:15	Characterization Of Patients Referred For Seminal Fluid Analysis In Prince Hussein Urology Center. Descriptive Study. Sheren S. Hajaj MT	43
1:15-1:30	Discussions	
1:30-2:30	**Lunch break**	

Scientific Day Program

Session one : Hall C
Physiotherapy, Occupational Therapy, Prosthesis & Orthosis

Moderators:Razeen Amawi PT, Sa`ed Smadi OT

Time	Title and Speaker	Page No.
10:15-10:30	The Advance Prosthesis for Upper Limbs Amputees in Jordan Royal Medical Services. Ghazi Muhsen Alamrat, CPO.	27
10:30-10:45	What is the Optimal Time Period For Using The Sanding Frame With Cerebral Palsy Children Who Suffer From High Spasticity Degree? Abber Alkatib PT.	22
10:45-11:00	Effective and Useful Treatment Time When Using Standing Frame For Patients With Paraplegia. Mai Abady PT.	25
11:00-11:15	Did Hemorrhagic Stroke Patients Have Better Functional Out Comes Than Ischemic Stroke Patients After Rehabilitation. Mohammad A.Bani Hani PT.	24
11:15-11:30	The Effectiveness of Taping on Supraspinatus Tendonitis. Mohammad Alquran PT	23
11:30-11:45	How Far Modified Constraint Can Induced Movement Therapy. Mohammad Sharayri OT.	26
1:30-2:30	**Coffe break**	

Scientific Day Program

Session Tow : Hall C
Speech language pathology, Dental Technician

Moderators: Sawsan AlGhwari SLP, Salem Al-Ekour DT

Time	Title and Speaker	Page No.
12:15-12:30	Characteristics of Dysphagia in Jordanian Children With Cerebral palsy. Rasha Abulubbad SLP.	42
12:30-12:45	Comparison Between TF32 and Praat in the Acoustic Analysis for laryngectomized Patients. Sameer Mohammad Al-jarrah SLP.	41
12:45-1:00	The frequency of Fracture of Complete Denture and its Causes in Patients Visiting Prosthodontic Clinic in Prince Rashed Hospital in Irbid. Elham Weshahi DT.	32
1:00-1:15	Voice Quality and Swallowing Disorders and Smoking Habits Among Total Laryngectomy Patients in King Hussein Medical Center. Rasha Abulubbad SLP.	40
1:15-1:30	Discussions	
1:30-2:30	**Lunch break**	

ABSTRACT

1.

Identification of Silent B-thalassemia Mutation,(Six Years Experience At Princess Iman Research And Laboratory Sciences Center In Jordan).

Eman mashaqbah MT (BSC) (Speaker) , Mohmmad Abu-Ghoush MT (MSc),
Heba Abu-alruz MT (BSC) Rasha Quatashait MT (BSC), RawanHayari MT (BSC).

Objective :

The purpose of this article is to presents of different types of silent Beta thalassemia mutations having normal HbA2 levels at Princess Iman Research and laboratory Sciences Center in Jordan.

Background:

Beta thalassemia is one of the most prevalent hereditary hemoglobin disorder characterized by reduction in the synthesis of beta globin chains causes reduced hemoglobin synthesis and eventually produces a hypochromic microcytic anemia. Generally increased levels of Hb A2 more than 4% causing beta thalassemia mutation. Silent Beta thalassemai have normal and border line levels of HbA2 between 3-4%.

Material and Methods:

Twenty-nine thousand and seven hundred and twelve (29712) cases of anemia were received from different peripheral hospitals at our lab during the period of 2011-2017. Hematological parameters were measured on sysmex(XE-2100). Hb analysis was performed by variant II hemoglobin testing system based on High Performance Liquid Chromatography (HPLC) used to separate and determine area percentage for hemoglobins (A, A2 ,F). DNA analysis for beta thalassemia was performed to confirm beta thalassemia trait in patient with normal and border line of Hb A2 levels using PCR and reverse hybridization strip Assay method. Family studies were carried out to confirm the diagnosis.

Results :

Out of 29712 samples 6000 samples were beta thalassemia trait diagnose by HPLC method. Out of 6000 samples 1500 were confirmed by DNA analysis for Beta globin gene mutation. Out of 1500 of analyzed sample by DNA analysis, one hundred and ninety (109) patients having normal and border line of HbA2 levels ranging from(3-4%) with average hematological data as following (11g/dl, 65fl, 24 Pg, 31 g/dl). For Hb, MCV ,MCH,MCHC), respectively DNA analysis for 109 samples to identify genotype of silent HbA2 was as following: ninety six(6.4%) was heterozygous IVS 1.6[T>C],four samples (0.26%)were heterozygous -87[C>G], four samples (0.26%)were heterozygous Knosses ,five samples (0.3%)were heterozygous for 1.130 mutation.

Conclusion:

Silent Beta thalassemia mutation having normal and border line HbA2 must be confirmed by DNA analysis for genotype identification. Heterozygous for IVS 1.6[T>C] mutation is common in silent Beta thalassemia mutation .

Recommendation:

This study suggests screening programs and management for antenatal diagnosis as well as increased awareness and educational screening programs in Pre-marrige counseling to control the birth of homozygozity of silent Beta thalassemia.

Keyword: Beta thalassemia, Silent , Jordan , HPLC

2.

The relevance of Galactose-1- Phosphate Uridyl Transferase(GALT) in the Diagnosis of Galactosemia at King Hussein Medical Center .

Zain Abou-Nouar MT BSc (speaker) , Omaima Abo Al-Sondoss MT BSc , Ghandy Al-Masruha MT BSc, Ali Nofal MT BSc, Siham Al-Omari MT BSc

Objective:

In this study we aim to find the relevance of Galactose -1-Phosphate Uridyl Transferase (GALT) in the diagnosis of infants suffering from an inherited disorder of galactose metabolism .

Methodology:

Blood spot samples were collected from infant patients attending the pediatric metabolism clinic at King Hussein Medical Center.

The samples consisted of 117 patients, 45 of whom were females and 72 were male, all were infants Laboratory workup was carried out over a period of four years from 2008 – 2012. All dried blood spot samples were subjected to qualitative measurement for Galactose -1-Phosphate Uridyl Transferase (GALT) by Quantase Neonatal GALT test kit from BOI-RAD.

Findings:

Our results revealed the deficiency of Galactose -1-Phosphate Uridyl Transferase in 15 samples with a prevalence of 12.8 % 5 of which were female smples and 10 were male samples with a prevalence 11.1 % and 13.9 % respectively.

Conclusion and Recommendations:

However for diagnosis the clinical symptoms of patient should always be taken in to account alongside the serological results.

Any new born with a family history should be tested for Galactosemia .

ABSTRACT

3.

The Relationship Between ABO blood Groups, Factor VIII (FVIII) And Von Willebrand Facor (Vwf):

Rasha F . Al-Ghraib MT BSc (Speaker), Muna A. MaharmahMT MSc. , Samar Z.Abu-Khader MT BSc , Lina M Almoman yMT BSc, Heba A. Alsoud MT BSc .

Objective :
The aim of this study is to relate ABO groups with plasma levels factor VIII (FVIII) and von Willebrand Factor (VWF Ag).

Materials and Methods:
Samples from 98 blood healthy males with no history of taking drugs. The age of the donors ranged from 23-57 years old (median age 36).
Two samples were collected from each donar at Prince Iman Research and Laboratory Sciences Centre .(one EDTA tube submitted to ABO serology and one Na-citrated tube submitted to coagulation lab).
ABO phenotypes were determined by agglutination using monoclonal and poly clonal anti-A, B and AB antibodies.
VWF Ag was measured by immunoturbidometric assay (Stago, France)
Factor VIII level was measured by clotting method using a factor-VIII deficient substrate (Stago,-France)
Statistical analysis performed using SPSS version 16, the means and standard deviations were calculated, p values <0.05 were considered statistically significant.

Results:
Blood group O individuals had the minimum mean of VWF (77.13)%, the highest mean of the VWF was 98.87% seen in blood group B individuals, the minimum was 38% seen within blood group O individuals. The maximum percentage was 164% seen within blood group B individuals (P<0.001).
Corresponding to the reported results of FVIII, the lowest was 43% that observed in blood group O individuals, the highest was 212% that observed in blood group B individuals, the highest mean of the FVIII was 133% that seen in blood group B individuals (p<0.001).

Conclusion :
Plasma levels of VWF: Ag and FVIII are vary significantly between individuals.
A significant linkage between Vwf:Ag , FVIII and ABO blood groups (p value <0.05) showed in donars.
Blood group O have significantly lower plasma levels of both plasma glycoproteins comparing with other blood group ,while blood group B showed significantly higher VWF: Ag and FVIII
Astrong correlation between plasma VWF: Ag and plasma FVIII levels (p<0.001).

Recommendation:
These results should be considered because both of plasma glycoproteins had a clinical significance in hemostasis.

4.

Association Between Prolactin -1149 G/T Gene Polymorphism, Anti-CCP Antibodies and Rheumatoid Arthritis Among Jordanians

Arwa Yousef Alaqeel M.T. Tagreed Aref Majalli M.T. Rasha Hamad Aljbour M.T. Islam Ibrahim Al-smadi M.T., Sophia Adel AL-Mahamid M.T.

Introduction:

Rheumatoid arthritis (RA) is a common autoimmune systemic inflammatory disease, and is the second most common form of arthritis after osteoarthritis. RA is accompanied by chronic inflammation of the synovium ending with damaging of joint and functional deterioration. Prolactin is a hormone with inflammatory and cytokine properties that have been proposed to contribute to the pathogenesis of rheumatoid arthritis. Prolactin is controlled by a superdistal promoter which includes a single nucleotide polymorphism PRL−1149 G/T that has been previously associated with RA susceptibility Anti-citrullinated peptide antibodies are a well-established indicator of RA disease severity. The levels of this antibody in RA associated with PRL−1149 G/T polymorphism alleles and genotypes. Thus the aim of this study is to determine the frequency of PRL−1149 G/T polymorphism, prolactin and anti-CCP antibodies among Jordanian and to show any association to rheumatoid arthritis.

Materials and Methods:

This is a case control study conducted at King Hussein Medical Centre between January 2015 and April 2015, including sixty five rheumatoid arthritis patients and sixty five healthy subjects as control. Samples were genotyped using the polymerase Chain Reaction Restriction Fragment Length Polymorphism method. The prolactin levels were measured using chemiluminescente immunometrice assay, and the levels of anti- cyclic citrullinated peptides antibodies were determined using enzyme linked immunosorbent assay. ESR was measured according to Westergren method. CRP-Latex test was used for CRP measuring, and RF-Latex test was used for RF measuring. Data were analyzed using SPSS version 16.

Results:

There are significant differences in genotypic (P=0.005) and allelic (P=0.009) distribution of PRL -1149 G/T polymorphism between RA patients and control. The GG, GT genotypes and the G allele were more frequent in RA patients (18.5%, 70.7%, 53.8%) compared to controls (6.1%, 63.1%, and 37.7%). In contrast TT genotype and the T allele were more frequent in control (30.8%, 62.3%) compared to RA patients (10.8%, 46.2%).TT genotype and T allele were associated with decreased RA susceptibility (OR 0.116, 0.518) compared to GG genotype and G allele. Prolactin was higher in RA patients (193.3±118.2mIU/L) compared to control (175.3±139.7mIU/L). Furthermore, GG genotype among RA patients had significant higher prolactin level (225.7+49.6mIU/L) in comparison with TT genotype (127.4+48.9mIU/L). Anti-citrullinated peptide antibodies were significantly higher in RA patients(353.8+506.2) compared to control(1.99+7.05), with higher titters in GG (623.53+475.13)genotype compared to GT(487.17+327.19) and TT(437.91+320.21) genotypes.

Conclusions:

We conclude that PRL-1149 TT genotype and T allele are genetic markers for decreased RA susceptibility in Jordanian population. TT genotype is associated with low prolactin concentrations in Jordanian population. There is an effect of PRL -1149 G/T polymorphism genotype on anti-CCP antibodies titers.Anti-CCP is specific and sensitive marker for RA.

ABSTRACT

5.

Common Microorganisms Isolated From Nail Culture in Microbiology Department at Princess Iman Center (PIC).

Ohoud B. Al Sawaear MT(speaker), Shaima M. Al-Odwan MT , Dyana S. Arabyat MT , Taghreed A Al-Odwan MT , Yazan F. Jarrah MT .

Introduction:
Onychomycosis is referred to nail infection caused by various kinds of microorganisms such as dermatophytes, non-dermatophytes molds and yeasts. Although some researchers consider onychomycosisnon life threatening but it constitutes an important public health problem because of its high prevalence. Onychomycosis can have significant negative effects on patient's emotional, social, and occupational functioning and patients may experience embarrassment in social and work situations, where they feel blighted or unclean, unwilling to allow their hands or feet to be seen. Patients may fear that they will transmit their infection to family members, friends, or coworkers, fears that can lead to diminished self-esteem and the avoidance of close relationships [Scher R K. Onychomycosis: a significant medical disorder. J Am AcadDermatol. 1996;35(Part 2):S2–S5. [PubMed]]

Objective:
To determine the most common microorganisms isolated from nail sample culture received to our Lab.

Materials and Method:
A hundred twenty three nail samples were received during the period of Jan.2016-Dec.2016 mostly from Dermatology clinic in King Hussein Medical Center to Microbiology department in PIC. All samples were cultured on Sabouraud agar which is selective media for dermatophytes and other type of fugi. The cultured nail incubated at 37C° for 24 hours then the culture was kept for 14 days at room temperature. Positive cultures were identified by wet mount slide technique, Scotch tape slide techniques and colony shape.

Results:
Out of 123 nail samples a 63 was No Growth result and 60 sample give a positive culture and the identified microorganism are; Candida spp. (41) samples, Aspergillusniger(13) samples, Trichophytonrubrum(1) sample, Penicillium (2) samples, Candida and Aspergillus(2) samples, Candida and Penicillium (1) sample.

Conclusion:
Based on the result we have candida spp. which is yeast fungi is the most causative for onychomycosis followed by Aspergillus spp.
Treatment should be any antifungal medication based on Doctor Recommendation, such as ketoconazole, clotrimazole, amphotericin B.
Personal hygiene should be considered as a good point to prevent recurrent infection or even new infection.

6.

JAK-2 mutation correlation with platelets activation and thrombotic complications in Myeloproliferative Neoplasms

Manal N. Alabbadi MT ,Tofaha S. Altwaissi MT , Arzat A. Odeh MT, , Aya Alkhamaisa MT

Background:
Philadelphia chromosome–negative Myeloproliferative Neoplasms (MPNs) are characterized by a high incidence of thrombohaemorrhagic complications, which is a leading cause of morbidity and mortality. A large variety of platelet dysfunctions has been described in chronic Myeloproliferative-Neoplasms, these abnormalities may be due to qualitative and/or quantitative defect in platelets. Janus Kinas -2 (JAK2) mutations found in high proportion of patients with MPNs, it's an important diagnostic marker and play an important role in pathogenesis of MPN.

Objective:
To assess JAK-2 mutation and expression of surface and platelets activation markers to correlate it with thrombotic complications in Myeloproliferative Neoplasms (MPN).

Material and Method:
In this study. Peripheral blood samples were obtained from 50 MPN patients [15 Polycythemia Vera (PV), 28 Essential Thrombocythemia (ET) and 7 Myelofibrosis (MF)] and 50 healthy controls. Patients Mean age was 58 years, ranging from 27- 89 years. Of these, 29 (58%) were females and 21 (42%) were males with (1.4/1) Female/Male ratio. The mean age of control group was 57 years, ranging from 29-85 years with 25 (50%) females and 25 (50%) males. JAK2-V617F mutation status was estimated in both patients and controls samples by using The Polymerase Chain Reaction – Restriction Fragment Length Polymorphism (PCR-RFLP) method whereas multi color flowcytometry was used to assess the expression of surface and activation-dependent membrane proteins.

Results:
Compared with controls, JAK2V617F mutation occurs in 87% of PV patients, 71% of PMF patients and 64% ET patients .Thrombotic events were more frequently accompanied with JAK2-V617F 18 (51%) out 35, but only 40% (6 out of 15) was accompanied with wild-type JAK2. CD36 and CD62P mean percentage in JAK2 V617F positive MPN patients were increased than wild type JAK2 in unstimulated platelets.

Conclusions:
presence of JAK2 V617F mutation is associated with higher platelet activation and thrombotic complications in Meyloproliferative Neoplasms (MPN) patients. Thrombotic complications are multifactorial in MPN patients.

Recommendation:
Further studies on JAK2V617F and other types of mutations will allow us to better understand the molecular pathogenesis of these MPNs; to develop molecularly targeted therapies for patients with these disorders. Future studies applied on a larger population for better understanding of haemostatic alterations in myeloproliferative neoplasms.

Keywords: Meyloproliferative Neoplasms, flow cytometry, JAK2V617F mutation.

ABSTRACT

7.

What is The Optimal Time Period For Using The Sanding Frame Withcerebral Palsy children who suffer from high spasticity degree?

Abber Alkatib PT (Speaker), Huda Alqudah PT, Majdi Eabedat PT ,Zakaria Alali, Ebtisam Aljubor PT .

Purpose:

To overcome the potential side effects in long lasting stretching for the spastic muscles in cerebral palsy children.

Methodology:

This study was done in Queen Rania Alabdullah with CP children, age between 2-5 years old; we took into consideration the degree of pain and spasticity.

The patient was placed on the device for one hour and twice daily for two weeks, and then the degree of pain and spasticity was examined. We repeated the procedure for an additional two weeks, but for a period of no more than half an hour, then the pain and spasticity score was recorded again.

Result:

We found a greater improvement in the degree of pain and spasticity when using the standing frame for only half an hour, which is better than leaving the patient for an hour on the device.

Conclusion and Recommendation:

Cerebral palsy patients (spastic individuals) should not be left on the standing frame for more than half an hour per session.

8.

The Effectiveness of Taping on Supraspinatus Tendonitis.

Mohammad Alquran PT (Speaker), Belal Dweiri PT, Anas Abu Alrub PT, Tarek AlshiabPT, Heba Abu Ershaid OT,

Background:

Supraspinatus tendonitis, is one of the most common condition with the shoulder in people ages 25 to 60 years old. supraspinatus tendonitis is an acute inflammatory condition. It is most often caused by a sudden pinching of the muscles in the shoulder area. This increases the workload of the surrounding muscles and tendons, leading to inflammation.

Objectives:

This study is designed to see the effectiveness of taping compared to combined therapy including ultrasound, ice and therapeutic exercise as a preferred traditional treatment option.

Methods:

A total of 44 patients, male 28 and female 16, have been referred to the physiotherapy department with acute supraspinatus tendonitis from outpatient clinic were randomly divided into two groups A the control group and B the experimental group.

The inclusion criteria was age 20-50, no motor or atrophic deficit, unilateral onset, early phases of SST (less than one month), no history of previous trauma or surgery. Pain level >5/10 on VAS and all tests were positive.

The experimental group B received in addition to the traditional treatment (ultrasound, ice and exercise) a taping program day after day for six weeks. The control group treated only with daily session of ultrasound therapy,ice and static strengthening exercise for six weeks. The Examination tools were pain severity on (VAS) ,and range of motion at the pain limit for shoulder abduction.

Results:

At the end of treatment period both groups showed improvement in the initial clinical picture, but the experimental group showed much more improvement of symptoms such as pain reduction <5/10 in group A 77%, group B 91%, also the range of motion was a widely more improved in group B as 86% show full range of motion and only 54% in the control group. The results for experimental group were more statistically significant than that of group A on pain and diagnostic tests.

Conclusion:

Based on the results of this study, we think that using therapeutic taping in conjunct with ultrasound, ice and exercise will be more helpful in alleviating symptoms of acute supraspinatus tendonitis than using traditional treatment alone.

9.

Did Hemorrhagic Stroke Patients Have Better Functional Out Comes Than Ischemic Stroke Patients after rehabilitation.

Mohammad Abdulkareem Bani Hani PT(Speaker), Baker Ali Smade PT, Waseem Rafea ShtawiShtayt PT, Mohammad Shorman OT, Murad Abdallah Mahmud AlaskarPT

Introduction:

Strokes affect 10 million around the world yearly, 5 million die and 5 million remain with disabilities (katarak at al .2009). woodson (1995) defined the stroke or cerebrovascular accident (CVA) as a sudden onset of neurological deficit causes by vascular injury lead to variety of disorders rather than one disorder .

There are two type of stroke Ischemic and hemorrhage the prognosis of stroke patients after rehabilitation can be affect by location , type of stroke and severity of lesion, therefore This research aims to compare the functional outcome between hemorrhagic stroke (ICH) and Ischemic (cerebral infarction) stroke after rehabilitation

Methods:

The method used to answer the research question of wether hemorrhagic stroke patients has functional outcomes than ischemic stroke patients after rehabilitation is analysis of exiting literature taken from a considerable number of previous researches. Due to the facts that data was collected from two kinds of sources book and journal articles. An electronic database was used to locate articles which focus on this topic in order to reach the most current research and select the most useful sources.

Result :

According to chiu et al (2010), multifarious analysis for stroke patients demonstrated that, mortality ,neurological outcome and functional outcome are not controlled by type of stroke .furthermore, Andersen et al.,(2009)point out ,no clear proof of differential recovery between ischemic and hemorrhagic stroke. Moreover, dennis,(2003) and (frank et al.,19929,quoted in Anderson,2009) claimed that prognosis after stroke determined by severity of brain lesion not by the type of lesion.

In addition, katarak et al. (2009) indicate in the study including 718 stroke patients | (18%ICH and 82%cerebral infarction), the ICH patients were younger than cerebral infarction patients, in spite of the history of hypertension were almost equal in both groups. This contrast with other risk factors for stroke like diabetes, a trial fibrillation and previous stroke are more common to cerebral infarction patients More oever the results of this study indicate that, the total FIM scores for ICH patient shown great improvement (28point gain) comparing with cerebral infarction(18 point again) after rehabilitation ,in spite of length of stay (LOS) being longer in ICH patients. Moreover, as was asserted by katark et al. (2009) the patients with ICH had higher level of disabilities on admission to rehabilitation. Nonetheless, they discharged with better functional outcome.

Conclusion

This report addressed the question of whether the hemorrhagic stroke patients (ICH) have better functional outcome than ischemic stroke patients (cerebral infarction) after rehabilitation. Finding show that ICH patients have more disabilities than ischemic stroke patients after stroke, also the morbidity higher in ICH patients especially in the acute phase. However, as has been asserted in high number of studies the functional outcome for ICH patients more advance than functional outcome for ischemic stroke patients. It should be recognized that data was taken from the studies focused only on the ICH patients who had been in rehabilitation centers, also some ICH patients have been excluded from rehabilitation services depending on the selective criteria. Further researches targeting the same age groups and comparing both types of stroke including all ICH patients would also added to the credibility of this report.

10.

Effective and Useful Treatment Time When Using Standing Frame for Patients with Paraplegia.

Mai Abady PT (Speaker), Huda Alqudah PT, Nezar Alkadam PT, Amera Aleagedat PT, Nessren Alzuod PT.

Back ground:

The Standing Frame is used as part of the rehabilitation program for SCI cases. The device has many benefits such as improving and activating the patient's blood circulation, maintaining body strength, activating the cardiovascular system, preventing blood thrombosis, maintaining bone strength and density especially in the lower extremities, and relievingspasticity which is a common feature in this category of patients and dangerous if it becomes very severe.

Purpose:

To determine duration of standing on the standing frame.

Methodology:

This study was done in the Royal Rehabilitation centre duration of the study two months include 18 paraplegic and spastic patients, 11 males and 7 females with average age of 19-44 years old, and divided into 2 groups (A and B).

In group A, the patient was left on the device for one hour and twice a day for a specified period of time two months.

In group B, the patient was left on the device for 40 minutes and twice a day for the same period of time. Investigate pain by faces pain scale ,pain measurement scale (0-10), and spastic by Ashworth Scale, the score from (0-5)

Result:

Group B showed greater response to treatment, with the spasticity significantly reduced as well as overall body condition.

Conclusion and recommendation:

The optimum time period when using the Standing Frame does not exceed 40 minutes to achieve the desired benefit.

ABSTRACT

11.

How Far Can Modified Constraint Induced Movement Therapy Improve Upper Extremity Functional Recovery After a Stroke.

Mohammad Sharayri OT (Speaker), Ra'afat Al-Awadat OT, Ahmad Al-Horani RN , Rawan Al-Fsheikat RN, Manar Al-Oran PT

Introduction:

Constraint-induced movement therapy (CIMT) consists of a set of rehabilitation techniques designed to reduce functional problems in the most affected upper extremity of stroke patients. This therapy involves constraining movement of less-affected arm, usually with sling or mitt for 90% of waking hours, while intensively inducing the use of the more-affected arm. Modified CIMT is less intense treatment that involves the same principles as CIMT, but with less intensity than traditional CIMT (i.e. less time). Most of the stroke rehabilitation centres use conventional rehabilitation methods for stroke patient where these methods have been proved to be less useful especially in the young patients.

Objective:

The aim of this study is to find out the effect of modified CIMT as a task specific training method on upper limb functional recovery with stroke patients.

Methods:

Therty stroke patients who are suffering moderate motor problems and other inclusion criteria were participated from different occupational therapy and physical therapy departments of royal medical services hospitals as outpatient. Pre and post measurements were taken using Wolf motor function test and Jebson Taylor hand function test to highlight the differences.

Results:

After all 30 patients completed the entire study protocol as defined by 7 weeks of training sessions; significant improvements in functional grasping, holding and manipulating abilities had been shown in the group of modified CIMT- comparing to the conventional treatment alone group.

Conclusion:

Depending on the above results, addition of 20 minutes of modified CIMT to the common conventional treatment (occupational and physical therapy) is useful and can speed up functional recovery of upper extremity in patients with stroke.

12.

The Advance Prosthesis for Upper Limbs Amputees in Jordan Royal Medical Services.

Ghazi Muhsen Abdel-QaderAlamrat, CPO, Consultant Orthotics & Prosthetics, JRMS .

Objective:

To evaluate the comparison functionally of Be Bionic Upper Limbs Prosthesis and Myoelectric Prosthesis.

Methods:

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:

Fourty 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.

ABSTRACT

13.

Comparison Between Fat Percentages With Body Mass Index(BMI) Using Body Composition Analyzers For Patients at AL Hussein Hospital (Royal Medical Services).

Feras Saleh Banisalameh, Nut.Eng Msc (Speaker), Ahmad Sulaiman AL Sharou, Nut. Eng(Bsc),Wael Ebraheem Mohammad, Nut. Eng. (Bsc). Haya Jameel AL abady Nut.Eng(Bsc), Rania Yasein AL Habahbeh, Nut. Eng. (Bsc).

Objective:

The purpose of this study is to comparepatients body mass index with their fat percentage through using body composition analyzers.

Methodology:

A cross sectional study for 1198 patients whom visit the dietary clinic at king Hussein medical center KHMC in AL Hussein hospital, during the period April 2016 to June 2017, body composition analysis for all participants using bioelectrical impedance analyzer (InBody770) was used. Which givesseveralinformation such as weight, percent body fat, BMI, total body water, skeletal muscle mass, minerals, etc.. Where, the gender, height, and age were entered.

Results:

The collected data showed that: 414 of participants were male, 784 were female. The participants mean value was for age 40.6 ± 13.2 years, weight82.2 ±17.1kg, height164.9 ± 8.9cm, PBF (Percent Body Fat) 38.09 ± 8.9,BMI 30.21± 5.9kg/m^2, FFM (fat free mass) 50.2 ± 10.4, SMM (Skeletal Muscle Mass) mean 27.7 ±6.3, Minerals 3.47 ± 0.7, BFM (Body Fat Mass) 31.9±11.8, SLM (Soft Lean Mass) 47.4±9.8, Protein 9.86 ± 2.08, TBW (Total Body Water) 36.94 ± 7.67, ICW (Intracellular Water) 22.83 ±4.81, ECW (Extracellular Water 14.1 ±2.85. where, for each gender male and female the mean value for weight 89.6±15.3, 78.1 ±16.7, height 173.2 ±6.4, 160.4 ± 6.6, BMI 29.8±4.4, 30.4±6.5, PBF31.4± 6.9, 41.6 ± 7.7, SMM 34.2±2.2, 24.3±3.6, FFM 60.8±8.3, 44.6±6.2,SLM 57.3±7.8, 42±5.8, BFM28.8±10, 33.5±12, minerals 4.1±0.6, 3.1±0.4, protein 11.9±1.6, 8.7±1.2, TBW44.6±6.1, 32.7±4.

Conclusion:

Percent body fat gives the actual percent of fat that the body contains. However, BMI can give an indication about weight (kg)/ height (cm2) but not about the body composition. Moreover, BMI could be within the normal range but patient may have high percent of fat.

Recommendations:

To have a body composition analyzer in every dietary clinic science it gives the dietitian more information about the body composition of patients. In addition, to adapt the results of body composition analyzer as an indicator for fat percent but not the BMI.

ABSTRACT

14.

Dietary Supplements

Ghaydaa Bqaeen Nut (Speaker) ,Neveen Baqaeen Nut, Maali Al-Daajah RN , Khadeejeh Hjahjeh RN, Mohammad Kloub RN.

Abstract:

Dietary supplements (DS) are defined as a product which includes one or more of the following dietary ingredients: a vitamin, a mineral, an herb or other botanical, an amino acid, any other substance used to supplement the diet by increasing total dietary intake, or a concentrate, metabolite, constituent, extract, or combination of any of the ingredient. Whatever the form, dietary supplements are considered a special category of food and are not considered drugs.

Objective:

To show the importance of dietary supplements in our lives, and the reasons people tend to eat them, whether because of medical advice or other reasons.

Methodology:

A 387 participants (employee, patient, civilian, and parents) (176 male, 211 female) were answered a questionnaire sheet in period from Feb. – May. 2017 in AL-Hussein hospital, Queen Rania hospital and Prince Ali bin al Hussein hospital, after that data was analyzed as shown below.

Results:

Eighty eight percent of participants take (DS) (35.6% male, 64.4% female), 61% ordered by medical advice and 39% feel the need to take (DS). 71% think (DS) is very important in their life, where 32% take it always; otherwise 74% think the dietary ingredient in the daily meals are not enough. 63% believe with the role of the nutritionist advice which supplement should take. Most (DS) taken by female are (Ca, Fe, Omg3, B12, Creatine), and (Amino acids, carbohydrates, and multivitamins) by male.

Conclusion:

Non-diversity of eating food, so some supplements might help to get adequate amounts of essential nutrients. However, supplements can't take the place of the variety of foods that are important to a healthy diet. Some dietary supplements are beneficial for overall health and for managing some health conditions.

ABSTRACT

15.

Effect of Lifestyle Practices and Cultural Dietary Habits on Abdominal Obesity and The Risk Of Type 2 Diabetes Mellitus (T2DM) In Jordan.

Malek Mohammed Al-Zghoul, Nut Bsc. (Speaker), Zohair Mohammad Al Syouf RN, Rabee Gazey AlQuraen Nut. Eng Bsc, Lina Mayah, Nut. Eng Bsc.
Abeer Rawashdeh Nut. EngBsc.

Background:
T2DM is considered as one of the most prevalent diseases in Jordan and worldwide in the last decades. Preventive strategies are needed urgently due to the chronic complications of diabetes such as cardiovascular diseases, stroke, blood vessels damage, nerves atrophy, kidney damage and blindness.
Dietary modification, physical activity, medical care, body weight and abdominal obesity, and family support are crucial factors which may either improve or worsen glycemic control in diabetic patients.

Objectives:
The objectives of this study were to evaluate lifestyle and dietary practices/behaviors that may correlate with the glycemic status of diabetic patients in Jordan.

Methods and Participants:
One hundred sixteen subjects (51 male and 65 females: 27-75 years) who visited the dietitian clinic at King Hussain Hospital, Amman, based on the referral of the endocrinologist were recruited in the study and approved to sign a consent form. All subjects had a baseline serum HbA1c of ≥ 6.5 % and followed the standard regimen that included an individualized balanced diet based on the baseline anthropometric measurement and dietary assessment. Along comprehensive questionnaire was filled out at their first visit with the assistance of trained researcher. Body composition was also measured using a bioelectrical impedance analyzer (InBody 770).

Results:
Female subjects had poorer glycemic control (HbA1c >7) compared to males.
BMI, waist circumference, body fat % and waist to hip ratio were significantly correlated with poor glycemic control (P≤0.05). Skipping breakfast and eating with others were also significantly associated with poor glycemic control while the speed of eating, sleeping right after eating were not associated with glycemic control.

Conclusion:
Lifestyle practices, body weight, abdominal obesity, body fat %, and dietary habits may correlate significantly with glycemic control in diabetic patients.

Recommendation:
National education programs through the media should be established to increase awareness. Diabetic should be following the criteria of the healthful diet including the adequacy, variety, balance , increase physical activity at least 7 time/ week (30 min).

16.

The Relationship Between (International Normalized Ratio) Value and the Consumption of Rich Vitamin (K) foods, Among Cardiovascular Patients taking Warfarine Drug .

Alaa S Sbou Bsc Nut. Eng (Speaker), Hanaa A Sarayra Bsc Nut. Eng. Sawsan A Efeshat Bsc Nut.Eng, Morad Abbady Bsc Nut.Eng, Saifeddin M MwajdehBsc Nut. Eng.

Objective:

To detect the Relationship between the main sources of Food contains Vitamin (k), and the Value of (INR) in patients using warfarine drug.

Methods:

Laboratory tests analysis for (100) patients with cardiovascular diseases whom visit dietary clinic at Queen Alia heart institution for three visits, during the period from May 2016 to December 2016 for patients using warfarine. With a comparison between (INR) values within three patient's visits, considering the number of servings daily consumed from food containing Vitamin (K).

Results:

Fifty tow % were males and 48 % were females, 64% were high intake of Vitamin (K) (<120 mcg/day), 20% were low intake of Vitamin (K) (<90 mcg/day) and the rest (16%) were moderate intake of Vitamin (K). 62 % of them were taking a high dose of warfarine (<5mg/day), 30% were taking a lower dose of warfarine and the rest (8%) were moderate intake of warfarine. 22% were high (INR) value(>3 or3.5) 46% were low (INR) value(< 2 or 2.5) and 32 % (INR) valu were on target (2-3 or 2.5-3.5).

Conclusion:

There was a lack of awareness about all types of food provide Vitamin (K) to the body. As the intake of food containing Vitamin (K) increases, the value of (INR) decreases , which leads to increase the dose of warfarine.

Recommendation:

It's necessary to increase the awareness about the food types rich in Vitamin (K), and patients with cardiovascular diseases and using warfarine should be advised to be moderate intake of vitamin (K) (90-120 mcg/day) to avoid the extreme drop in (INR) value, which will cause a serious complications for the patient.

ABSTRACT

17.

The Frequency of Fracture of Complete Denture and its Causes in Patients Visiting Prosthodontic Clinic in Prince Rashed Hospital in Irbid.

Elham Weshahi BSc (DT), Rasha Jaradat BSc (DT), Abbas Al-nawafleh BSc (DT) , Majdi Al-Domi BSc (DT) , Ruba Al-Refa'I BSc (DT)

Aim:

To assess the frequency of fracture of complete denture and to determine the most common causes of the fracture in patients visiting prosthodontic clinic in Prince Rashed Hospital in Irbid .

Material and Methods:

Sixsty patients (thirty one males , twenty nine females)had upper and lower complete dentures, visited prosthodontic clinic in Prince Rashed Hospital during the period of May to June 2017, for the sake of repairing a fractured complete denture , were examined and the cause of the fracture was recorded.

Results:

Thirty nine upper complete denture , Twenty one lower were presented as fractured dentures . (45/60 =75%) of the fractures occurred during eating , (15/60 =25%) occurred due to denture falling down.In males ,fractured upper denture was more common (84%)than lower(16%), while in females , fractured lower was more common(69%) than upper(31%). Fracture due to eating was more common in upper dentures (85%) than in lowers(57%).

Conclusion :

Fracture in complete denture is a common but disturbing accident for both clinician/technician and patient. The results showed that there were two main causes for the fracture ,

1- denture falling down

2- abnormal occlusal forces exerted on denture during mastication.

Recommendation:

The frequency in fracture in complete denture can be reduced to the minimal by:

1- Careful construction of the denture ,paying attention to create good Occlusal relationship, avoiding weak points particularly in the midline and , delivering a denture with good retention and stability, this will prevent denture fracture during mastication.

2- Educating the patients how to deal with the denture especially during cleaning and when the denture is out of the mouth, this will reduce the fracture results from denture's falling down.

18.

Digital Radiography in King Husain Medical Center

Nada Abdel-Majid Ebbini.BSc(speaker), Rana Rateb Alshbeallat.RT, Shefaa Mohammad Alhawari.RT, Hadeel Saa'd Alda'ja.RT, Hania Moh'd Alda'ja.RT.

Introduction:
Each day therapeutical and diagnostic x-ray is becoming more complex and digital advanced technology becoming more spread around the world.

Aim:
Understanding Digital Radiography and making a comparison between the computed radiology (CR) digital system and digital radiology (DR) digital system.
This paper will view the evolutions in x-ray technology until we come to the most advanced digital Radiology system, also PACS and its recent advances.

Conclusion:
Now a day's saving money, time and having best image quality are becoming a great deal.
The efficiencies of DR are well documented. It is a truly digital system with no cassettes and therefore none of the time consuming steps needed to process them. Images are ready for viewing in seconds instead of minutes ,also the reduction of patient exposure is made possible compared with conventional screen-film combination, at the same time DR produces excellent spatial resolution and higher quality images.

ABSTRACT

19.

The Values Of TRANCE (Triggered Angiography Non Contrast Enhanced) MR Imaging In Patients With Renal Insufficiency.

Amer Malkawi(speaker) RT, Walaa Alghnaimat RT, Hadeel Alfrokh RT, Maaly Bin Tareef RT, Amneh Bani Sa`ed RT.

Introduction:
Until recently, TOF and PC the only NC-MRA techniques used in clinical applications, these techniques suffered from long scan time and low sensitivity. Advances of hard ware and soft ware especially application of parallel imaging techniques greatly reducing scan time. TRANCE imaging has achieved remarkable advancement and become feasible clinical option technique for lower limb angiography as an alternative to CE-MRA and CTA .because of safety concerns related to the link between gadolinium based contrast agent and patients who are at risk for NSF(nephrogenic systemic fibroses) such as those with renal insufficiency, MR imaging without gadolinium based contrast agents is preferred.

Purpose:
To investigate the feasibility of TRANCE MRI imaging in diagnoses patients with renal insufficiency for PAD(peripheral arterial disease).

Material and Methods :
Eight patients (five males and three females, age range = 45-82 years, mean age = 65 years) were studied using the proposed TRANCE-MRA approach, for suspected or known PAD(peripheral arterial disease) were studied. Imaging was performed using a 3-T clinical whole-body MR system (MAGNETOM Inginia, Philips, Netherlands). A 16-element peripheral matrix coil positioned anteriorly and laterally, along with a spine coil located posteriorly, was used for signal receiving.
TRANCE protocols are 3D TSE sequences with cardiac triggering. Visualizing arteries only requires two separate scans with triggering in different cardiac phases. In systole arterial blood is flowing fast. This causes dephasing of signal and leads to flow voids, so arteries will be black with systolic triggering. In diastole blood flow in arteries is slow. The signal will not dephase, so arteries will be bright on diastolic scans. Subtracting these scans results in a 3D data set with arteriesONLY.
To obtain veins only, a 3D TSE protocol with STIR is scanned with systolic triggering. STIR gives extra background suppression as fat and bones will also be suppressed.
With systolic triggering the arteries are black. Result is a dataset with veins only, no subtraction needed.
A QFlow scan is performed to determine the appropriate trigger delay times for systolic and diastolic trigger.

Results:
In four patients, TRANCE-MRA provided excellent and normal MRA images, with sharper artery delineation due to higher and isotropic spatial resolution , In one patient, a mild stenosis at the origin of the right peroneal artery was identified by TRANCE-MRA. In another three patients, TRANCE-MRA demonstrated significant bilateral calf artery occlusion.

Conclusion:
TRANCE -MRA technique using ECG-triggered has been developed and validated alternatives to CE-MRA and CTA in the distal lower extremities of patients with renal insufficiency it allows for artery visualization with high isotropic spatial resolution, large FOV, and excellent contrast between arteries and surrounding veins and tissues without the use of contrast agent.

Key Words:
TOF=time of flight, PC=phase contrast, NC-MRA=non contrast magnetic resonance angiography, NSF=nephrogenic systemic fibroses, CE-MRA= contrast enhancement magnetic resonance angiography,Q Flow=quantification flow, TSE=turbo spin echo.

20.

Which is Better to Discover Renal Stones in Adult Patients Renal Ultrasound or Renal CT Scan?

Sulaiman Talal Hindawe RT(spaker), Samer Hussain AL-Brasenh RT, Ihssan Ibraheim Rawashdeh RT, Hussein Hassan Abd-AL-Nabi RT, Mustafa Mohammad Alrdaideh RT

Aim:

The goal of this study is to compare and determine which is better to discover kidney stones renal ultrasound or renal CT scan .

Methods:

Our survey covered 643 patients who had visited the emergency department at Prince Rashid Bin Al Hassan Hospital from Sep 2016 to Dec 2016 .This study included 643 cases Their ages ranged from 20 to 60 years they were suffering symptoms of renal colic , It was suspected that they have kidney stones . And we have to expose all cases to ultrasound and computed tomography at the same time.

Results :

Our findings were that one patient of every 8 patients had kidney stones, at least in one kidney, about 81 patients who have kidney stones. And about 63 patients were diagnosed by ultrasound and almost all patients who have kidney stones have been diagnosed by computed tomography

Conclusions:

Computed tomography better in diagnosed kidney stones because the stones smaller than 0.4 mm can't diagnosed by ultrasound.

ABSTRACT

21.

The Effect of Body Size and Age on Bone Density Test Results for Children.

Kassab Salem Al.Slaity RT (speaker), Khadeejah Ali Al.RbaihatRT, Eisa Al.Mansoor RT, Maisa'a Khalil Al.SaidatRT, Dana Sami Thagzeet

Introduction:
Currently, DEXA (Dual-Energy X-ray Absorptiometry) is the most widely used method for measuring pediatric BMD and pediatric skeletal strength in clinical settings. The biology of bone mineralization during growth is important for peak bone mass.

Purpose:
The aim of the study was to examine how body size, age influence bone size and bone mineral density for children.
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Method:
Whole body bonearea (BA) and bone mineral content (BMC) were examined by dual-energy X-ray absorptiometry (Hologic1000/W) in healthy girls (n 12) and boys (n 17) aged 5–16 y. The influence of height, weight, ageon bone mineralization was examined by multiple regressions. Main determinants of BA wereheight and weight. Thus skeletal size is mainly determined by bodysize, while bone density is determined by age.
BMC (g), BMD (g/cm2), and the area of the vertebral body of the L2-L4 segment (cm2), were measured by statistical analysis. BMD was measured only in the lumbar spine because evaluation of the femoral neck may be biased due to the presence of growth cartilage and to the technical difficulties related to positioning this age group.

Result:
BMC and BMD for the lumbar spine (L2-L4) showed a progressive increase between 5 and 16 years of age in both sexes. This distribution showed that the increase in bone mass was not steady, with periods of distinct rates of bone mineralization being observed. The values of BMD between 6 and 14 years of age increased by 54 and 59% in boys and girls, respectively. At 14 years of age the mean BMD values were 0.984 and 1.017 g/cm2, which correspond to 85% of the expected bone density for adult.

Conclusion:
Correlations between BMD and the anthropometric variables weight and height are mainly due to the increase of bone dimensions during childhood and adolescence, and confirm that BMD depends on age and growth during this period.

22.

The Effect of Using PET-CT Fusion on Target Volume Delineation and dose to Organs at Risk in 3D Radiotherapy Planning of Patients With NSSLC.

Rana Rawajfeh RT (Speaker) , Nadia Tubaishat SN, Othman AL – TwerishSN, Khloud AL mrayat SW, Wafaa AL omari BMP.

Background:

Three-dimensional conformal radiation therapy (3DCRT) planning remains the standard option in the management of locally advanced NSSCL, a technique that makes the radiation oncologist face the challenge of target volume delineation based on CT scan alone, which will eventually affect target volume coverage, i.e. gross tumor volume (GTV) and planning target volume (PTV), as well as dose to the surrounding normal tissues at risk.

Purpose:

To prospectively study the impact of fusing 18F-Fluoro-Deoxy-2-Glucose Hybrid Positron Emission Tomographic (FDG-PET) images with CT images on the planning target volume (PTV) delineation, target coverage, and critical organ dose in radiation therapy planning of non–small-cell lung carcinoma.

Methods and Materials:

Twenty patients with Stages I–III NSCLC were referred to our radiotherapy department in the period between Jan 1st 2015 and Aug 30, 2016, planned for treatment via radiotherapy alone or with concurrent chemo-radiation. Each patient underwent a planning CT with immobilization devices. FDG-PET scan was ordered for every patient and done in the department of nuclear medicine very soon after or before the day of CT simulation. Both the CT and PET/CT image data sets were fused and used in the radiation treatment planning workstation for contouring. Each FDG-PET study was reviewed with the interpreting nuclear radiologist before tumor volumes were contoured. A three-dimensional conformal radiation therapy (3DCRT) plan was calculated based on contours done on the CT scan only. A second plan based on the fused PET/CT images was generated. The PTV was defined by a 20 mm margin around the GTV. The two 3DCRT plans for each patient were compared with respect to the GTV, PTV, mean lung dose, volume of normal lung receiving >20 Gy (V20), and mean esophageal dose.

Results:

The FDG-PET findings altered the AJCC TNM stage in 6 of 20 (30%) patients; 2 patients were diagnosed with metastatic disease based on FDG-PET and received palliative radiation therapy. Of the 18 patients who were planned with 3DCRT, PET clearly altered the radiation therapy volume in 10 (66%), for example, PET helped to distinguish tumor from atelectasis in all 4 patients with atelectasis. Unsuspected nodal disease was detected by PET in 2 patients, and 1 patient had a separate tumor focus detected within a different lobe of the lung. Increases in the target volumes led to increases in the dose to organs at risk (mean lung dose, V20, and mean esophageal dose). Decreases in the target volumes in the patients with atelectasis led to decreases in these normal-tissue toxicity parameters.

Conclusions:

Radiation targeting with fused FDG-PET and CT images resulted in modifications in radiation therapy planning in over 50% of patients by comparison with CT targeting. The future plan of having a PET-CT simulator in our department will make it possible to have the planning CT and PET-CT done on the same day and in the same position, eliminating all the difficulties faced during the fusion process.

Keywords:

Non–small-cell lung cancer, Radiation therapy, Target delineation, FDG-PET.

ABSTRACT

23.

Water Quality in Hemodialysis.

Ali Ayal-Salman BMT (Speaker), Omar Otoom BMT, Mohammad Al-Wraikat BME, Anas Harb BMT, Emad Quaqzeh BMT

Introduction:

The term "Hemodialysis" is divided into two words; "Hemo" which means blood in Latin, and "Dialysis" which means filtration in Latin. Hemodialysis is a treatment for people in acute or chronic renal failure; this treatment cleans the blood and removes excess water from the body. Normally, this work is done by healthy kidneys. Hemodialysis units perform extracorporeal dialysis to replace the main activity of the kidneys.

Adequate water purification is essential in hemodialysis. The quality and composition of tap water varies from location to location; water that is considered safe for drinking may still be dangerous for hemodialysis. A long-term dialysis patient is exposed to 450 liters of water per week, which is almost 50 times the amount ingested by healthy people; as a result, trace amounts of elements in tap water may approach toxic levels in dialysis patients.

Aluminum from tap water has been cited as a possible cause of illnesses such as dialysis encephalopathy, bone disease, and anemia; iron can move across the dialyzer membrane and cause excessive iron storage in the liver; copper can cause anemia and metabolic acidosis; and excess lead can result in neurological damage. Standards have been established for water quality in hemodialysis systems, but there is still confusion regarding what constitutes an impurity. Researchers are discovering that many components currently being removed by the purification system and by the dialyzer membrane, such as zinc, are important to body metabolism. Vitamin therapy is often prescribed for dialysis patients.

Objective:

The aim of this study is to explain the effects of water quality on patients whom are treated with hemodialysis to make the appropriate modifications on water systems used in hemodialysis machines, and this is to keep the patients of renal failure away from additional health problems resulted from poor water quality.

Method:

The water quality was tested with water quality testing devices the water quality was not purified as recommended by the manufacturer, in this state, blood samples were collected from patients whom are treated with hemodialysis units and ran chemistry test on those samples and registered their minerals levels results, then purification system department in the hospital was contacted and requested to apply the requirements for water purification as recommended by the manufacturer of the hemodialysis units. This study was performed in King Hussein Medical City particularly in Hemodialysis Unit department during March 2016 to July 2016.

Results:

After 3 months of correcting the purification method blood samples were collected from the same patients again and ran chemistry tests on them to realize that minerals level were decreased.

Conclusion

Water used for dialysis should be tested periodically. The monitoring frequency depends on the water treatment used. Centers using RO or DI devices should test their water at least annually, and those using other methods should test at least every three months.

Key Words:

R.O: Reverse Osmosis - D.I: De-Ionized

24.

The Effect of Using Safety Switches on Operating Table.

Mohanad Al-Azaydeh BMT (Speaker), Wesam Al-Smadi BMT, Abdullah Al-Sous BMT, Anwar Rajeh BMT, Mohammad Al-Rabie BMT

Introduction:

Operating table is necessary machine used at operation rooms "which can be major or minor" to make the required position needed by doctors, the operators in the operation room put something like (head rest, arm support,….etc.) on the base of the table, so when moving the table down, they forget to remove that things which causes bend in the column and causes break to the cover of the column, so these problems will let liquid to inter the table.

Purpose:

The purpose of the safety sensors is to measure the effect of using it on the operation table and to detect if it reduce the time and cost of maintenance.

Method:

This study was done in October 2016, in royal rehabilitation center operation room, we used safety switches under the base cover of the table "in the corners" which disconnect the power of the table and cancel the order of move down if there any pressure in it.

Result:

After we entered the safety switch to the circuit of the operation table, we notice that the problem was resolved 100%, so we can save the table and reduce the down time to 0% and reduce the cost and the time of maintenance, and reduce the infection.

Conclusion:

Safety switches can resolve the most maintenance requests for crooked column or its cover.

ABSTRACT

25.

Voice Quality and Swallowing Disorders and Smoking Habits Among Total Laryngectomy Patients in King Hussein Medical Center.

Rasha Fayez Abu-lubbad (Speaker) , Sawsan Ahmad Al –Ghwere, Da'ad Mousa Al-Shaiby, Asma Shahir Al-Momani , Esra'a Mohammad Al-Momani

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; in a partial laryngectomy only a portion is taken out. The laryngectomy breathes through an opening in the neck known as a stoma.

Objective :

To determine the changes in voice quality ,swallowing (dysphagia) and smoking habits among patients with total laryngectomy.

Methodology :

Twenty male subjects with a mean age of 71 years range (51-82) were involved in the study for six months post operation. The study took place in King Hussein Medical Center in speech clinic.

Subjects were asked to fill a questioner post operation during the period of (Jul 2016 to Jan 2017) , which consisted of 15 questions about swallowing disorders,10 questions about voice quality post laryngectomy, and 5 questions about the smoking habits.

Results and discussion :

Eighty percent of the patients reported that they were comfortable with the quality of their voice including speaking on the telephone. Thirty eight percent of the patients had disorders in swallowing solid food.

All but one patient had been heavy smoker pre-operatively only nine percent continued to smoke post – operatively.

Conclusion:

The results showed that most of laryngectomy patients were comfortable with their voice quality post the operation. Swallowing was good in most of the patients,along with reduced smoking habits among patients with total laryngectomy.

Recommendations:

These results should be taken in to account in counseling patients who are candidates for this surgery.

ABSTRACT

26.

Comparison between TF32 and Praat in the Acoustic Analysis for laryngectomized Patients

Sameer Mohammad Al-jarrah SLP(Speaker) , .Malik Khaleel SLP, Yaser Natour Ph.D SLP, Da'ad Abdelhay SLP, Alia Abu qamar SLP.

Objective:

The purpose of this study is to compare the acoustic analysis for laryngectomized patients using two software, Time-Frequency Analysis Software (TF32; Milenkovic, Madison, WI) and analysis of speech in phonetics, by Paul Boersma, David Weenink (Praat) program, by analyzing the main three Arabic vowels, and then to compare the results of both programs statistically to determine which of them is more practical in analyzing prosthetic voice as compared to normal voice. Analysis will be done by statistic computer software SPSS.

Methods:

A sample of nine laryngectomized patients using TEP speechwere selected, (age range 50-70 years old). The inclusion criteria were intelligible prosthetic speech according to family members and have been users of a voice prosthesis for at least 6 months. Voice recording was conducted by using TF32 and Praat. The acoustic signals were recorded for each patient in a quiet room. A dynamic microphone was positioned at a constant mouth-to-microphone distance of 15cm,these data are acoustic Fundamental frequency, Harmonic to noise Ratio HNR, Jitter %, and Shimmer %. TEP speakers were instructed to sustain each vowel (/a/, /u/, /i/) for 3 seconds at typical habitual conversation.

Results:

analysis showed that there was no significant difference in vowels features between TF32 and Praat. And showed significant difference in shimmer, HNR and fundamental frequencies.

Conclusion:

Praat mean of fundamental frequencies for both genders were very high. HNR values more than three times lower comparing to normal voice, where in TF32 those results were as expected of a low fundamental frequency and three times lower HNR.

ABSTRACT

27.

Characteristics of Dysphagia in Jordanian Children with Cerebral Palsy.

Rasha Abulubbad Slp, Tala Al -Ma'aitah Slp, Sara AL-Shomaly Slp

Objective:
This study aimed to define the characteristics of swallowing difficulties in Jordanian children with cerebral palsy

Participants:
A total of (20) children , equal number of males and females with confirmed diagnosis of moderate to severe cerebral palsy (aged 5-10) were selected from the same ethnic group from Jordan populace. Children from four different groups of CP were selected to be part of the study.(spastic diplegia, spastic hemiplegia, spastic quadriplegia, and dyskinetic athetoid).

Procedures:
Data collection was done by using Oral-Motor/Feeding Rating Scale (Jelm, 1990), a subjective test designed to analyze specific information regarding oral-motor movement as seen during feeding function, and note specific patterns with scores ranging from 0 to 5 in each category of the assessment. As the client eats a typical meal, lip/cheek movement, tongue movement, and jaw movement were observed and analyzed. Each movement was observed in six different feeding situations: spoon feeding, cup drinking, biting (soft cookie), biting (hard cookie), chewing, and straw drinking. The clinicians also observed drooling, voluntary cough, and self-feeding in each patient individually.

Results:
all children with Spastic Quadriplegia and Dyskinetic Athetoid suffered from oral preparatory dysphagia. In Spastic Diplegia 70% of children suffered from oral preparatory dysphagia and 30% of children were having normal swallow. In comparison with Spastic Hemiplegia, all children showed normal swallow pattern.

28.

Characterization of Patients Referred for Seminal Fluid Analysis in Prince Hussein Urology Center. Descriptive study .

Sheren S. Hajaj MT(Speaker) , Batool M.Hajjat MT, Touqa A. Salaheen MT, Rasha H. Aljbor MT, Anwar Jalodi MT

Purpose:
To characterize patients referred to Prince Hussein Urology Center (PHUC) for semen fluid analysis.

Methods:
Retrospective review of data on semenal fluid analysis collected in PHUC using the World Health Organization (WHO) guidelinesover a period of 7 months.

Participants:
Two hundred twenty nine patients who were referred to Prince Hussein Urology Center with diagnoses of infertility or varicose veins. Participants represented various age groups ranging from 17-74 years of age

Outcome measures:
The criteria of semen specimens including semen volume (ml), sperm concentration (i.e. sperm count) (10^6/ml), overall motility(%motile), number of round cells in semen sample (cell/field), and sample viscosity.
Statistical analysis: Descriptive statistics such as frequencies and percentiles were used to characterize demographic characteristics of patients. Patients were stratified according to age into six age groups, diagnoses and semen fluid analysis data were described for each group.

Results:
The majority of patients (42%, n=98) were between 25 and 32 years, followed by 27% (n=64) between the age of 33 and 40. Seventy percent of patients (n=160) were diagnosed with varicose vein whereas thirty percent (n=69) were diagnoses with infertility. Married patients represented sixty-two percent of this sample (n= 141) whereas single patients represented thirty-eight percent (n=88).Across all age groups, patients diagnosed with varicose vein presented with better semen count (160 MIL) compared to those diagnosed with infertility (69 MIL). Forty-five percent of patients (n=105) exhibited with no viscosity, and viscosity was not associated with motility% cells.

Conclusion:
The findings of this study demonstrate that semen fluid analysis is utilized across the adult age spectrum for various diagnosis, and that characteristics obtained during seminal fluid analysis support clinical and diagnostic data.

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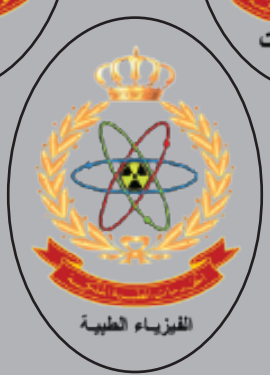
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