

Index Medicus for the WHO Eastern Mediterranean Region

with Abstracts



IMEMR Current Contents

June 2016

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IMEMR Current Contents

Rationale

The Index Medicus for the WHO Eastern Mediterranean Region (IMEMR) has sustained its indexing policy, which has made it a vital current awareness information tool, for technical staff of the Regional Office, health care staff, and medical professionals who are able now to access health literature published in the Region as soon as it is published. A document delivery service to support the Index has also been activated which will enable any user to acquire a copy of any article listed in the Index.

The cumulative version of the Index Medicus is available now on the Internet as part of EMRO web site. A CD-ROM version of the same is also being provided upon request.

Scope and Coverage

The **IMEMR Current Contents** is issued on a quarterly basis including the most recent articles added to Index Medicus for the Eastern Mediterranean Region (IMEMR) Database¹.

Indexing Level

Each article has been indexed and assigned to a "Main Heading", plus added headings according to the Medical Subject Headings (MeSH) list of the National Library of Medicine (NLM). Up to five added headings (including the respective country) have been allowed. Subheadings (or qualifiers) are used in indexing to qualify MeSH headings by pinpointing some specific aspects of the concept represented by the heading, e.g. "LIVER-Drug Effects" indicates that the article is not about the liver in general, but about the effect of drugs on the liver.

Organization of the IMEMR

Subject Index

The Index is organized in alphabetical order, according to the Main Subject Headings (MeSH). In most cases one main subject is assigned to each article. Under the main subject, entries are sorted by Subheading in alphabetical order also. Each entry includes the bibliographic information of the article e.g. title of the article, author(s), first author's affiliation, journal title, year (date of publication), volume number, issue number, page numbers, number of references, subject descriptors and geographic descriptors. Abstracts have been added and are searchable on the database on the Internet. (as shown in Figure 1)

Author Index

The IMEMR includes the author's index, which also indicates the subjects covered by each author. (Appendix I)

List of EMR Journals by Country

The IMEMR includes an updated list of EMR Journals, which are indexed in the index. The list is sorted in alphabetical order by the country of publication, which also indicates the number of journals in each country. (Appendix II)

List of EMR Journals by Title

The IMEMR includes an updated list of EMR Journals, which are indexed in the index. The list is sorted in alphabetical order by journal's title, which also indicates the status of indexing for each journal. (Appendix III)

Computer facilities

The Current Contents has been produced using the UNESCO WINISIS package. Countries or journals publishers interested in a subset of the database may be provided with data sets in WINISIS format upon request.

¹ Including the countries of Afghanistan, Bahrain, Djibouti, Egypt, Islamic Republic of Iran, Iraq, Jordan, Kuwait, Lebanon, Libyan Arab Jamahiriya, Morocco, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates, Yemen

Availability of photocopies

Photocopies of articles cited in IMEMR may be obtained from EMRO Library free of charge upon request.

Availability on the Internet

This issue, as well as all forthcoming issues, will appear in WHO/EMRO web site on the Internet, as part of the complete edition of the Index. Internet address is <http://www.emro.who.int/information-resources/imemr/imemr.html>

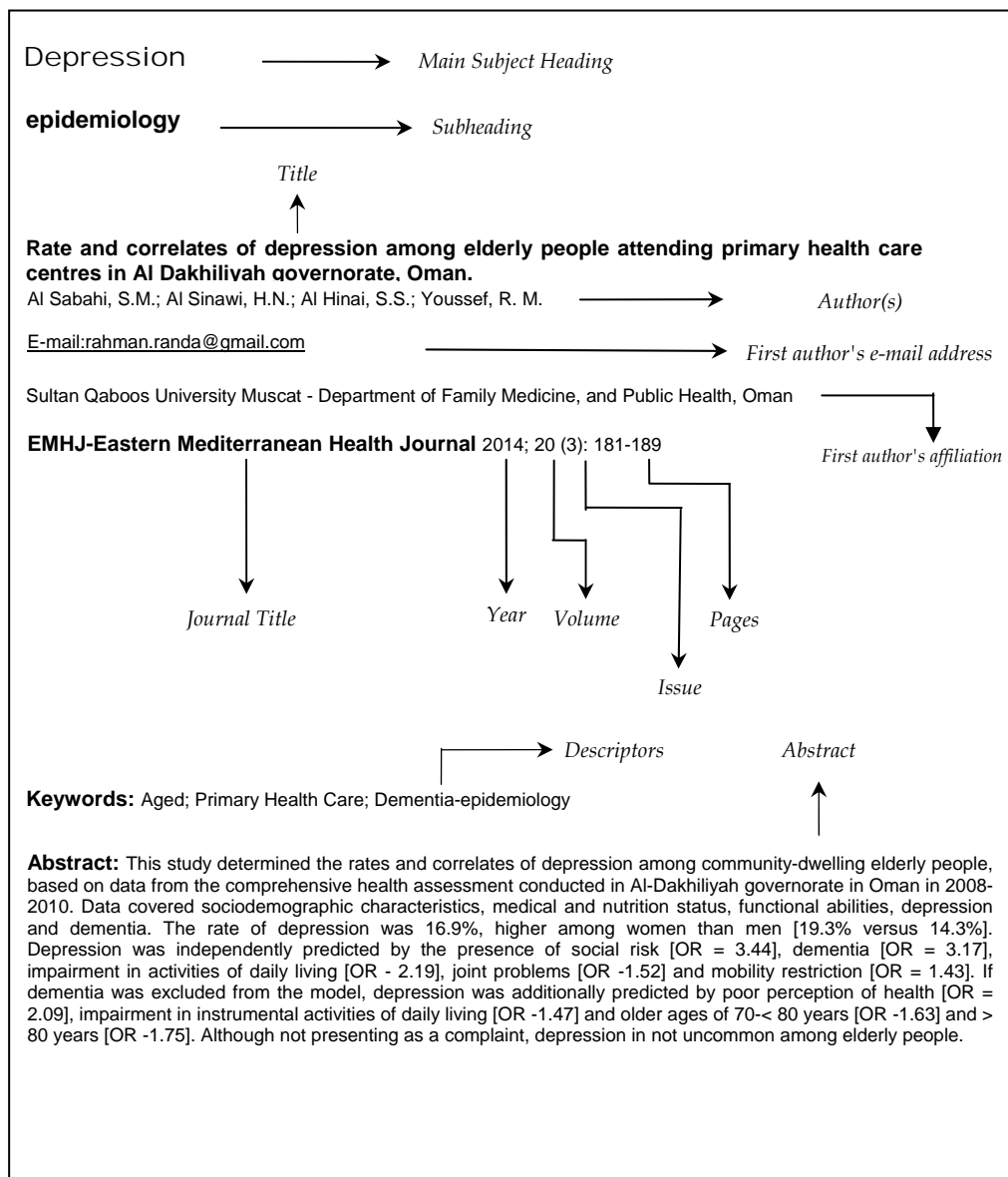


Figure (1): Sample of IMEMR citation

Subject Index

Abdominal Pain

Right upper-quadrant pain in a patient with drug abuse, secondary syphilis and occult hepatitis B virus.

Fielding, Cory M.; Angulo, Paul
University of Kentucky - Department of Internal Medicine

Medical Principles and Practice 2014; 23 (5): 471-474

Keywords: Substance-Related Disorders; Syphilis; Hepatitis B virus; Hepatitis B; Jaundice; Acetaminophen; Methamphetamine; Buprenorphine; Cannabis

Abstract: To describe the etiology of hepatitis and identify occult hepatitis B virus [HBV] infection. Clinical Presentation and Intervention: A 40-year-old man presented with severe abdominal pain and jaundice, a history of acute HBV infection that had cleared as well as the use of acetaminophen, methamphetamine, buprenorphine and marijuana. He admitted to having had unprotected sex with multiple partners of both genders. A thorough skin examination revealed papulosquamous lesions on his penis, scrotum, upper and lower extremities and feet. Transaminases and bilirubin were elevated. His rapid plasma reagin was reactive, and hepatitis serologies showed occult HBV. Liver biopsy showed severe hepatitis, but the stains for hepatitis B surface antigen and hepatitis B core antigen were negative. The pathological findings were highly indicative of drug-induced hepatitis without evidence of chronic hepatitis, reactivation of HBV or syphilitic hepatitis. With supportive management and abstinence from drugs, his condition improved. This case describes a patient with multiple potential causes for hepatitis and highlights the importance of obtaining a detailed social history. Further, one should consider the presence of occult HBV and recognize the serologic pattern.

Adenosine Triphosphate

Mitochondrial distribution and ATP content of vitrified, in vitro matured mouse oocytes.

Nazmara, Zohreh; Salehnia, Mojdeh; Hossein Khani, Saman
Tarbiat Modares University - Faculty of Medical Sciences - Department of Anatomy
AJMB-Avicenna Journal of Medical Biotechnology 2014; 6 (4): 210-217

Keywords: Mitochondria; In Vitro Techniques; Vitrification; In Vitro Oocyte Maturation Techniques; Oocytes; Mice

Abstract: The objective of this study was to investigate the effect of vitrification and in vitro maturation on the mitochondrial distribution and ATP content of oocytes. The oocytes at Germinal Vesicle [GV] and Metaphase II [MII] stages were recovered from 6-8 week old NMRI strain female mice. The oocytes were divided into vitrified and non-vitrified groups. Vitrification was done by the cryotop method using ethylene glycol, dimethylsulfoxide and sucrose as cryoprotectants. The GV oocytes were cultured in maturation medium for 24 hrs. The collected in vitro matured oocytes [IVM-MII] and ovulated metaphase II [OV-MII] oocytes were inseminated with capacitated sperm. The ATP content of the oocytes was measured by luciferin-luciferase reaction. Distribution of oocyte mitochondria was studied using Mito Tracker Green staining under fluorescent microscope. The survival rates of vitrified oocytes at GV and MII stages were 87.39 and 89.5%, respectively. There was no significant difference in the developmental and hatching rates of vitrified and non-vitrified oocytes. The ATP content of GV and MII oocytes derived from in vivo and in vitro condition was not significantly different in vitrified and non-vitrified samples. The pattern of mitochondrial distribution in vitrified and non-vitrified GV and MII oocytes was similar but it was different between MII oocytes collected from fallopian tube and in vitro matured MII oocytes. However, the fluorescent intensity of mitochondrial staining was different in all the groups in the study. Vitrification did not affect mouse oocyte developmental competence, ATP content at different developmental stages but some alteration was seen in mitochondria distribution of in vitro matured oocytes in comparison to their controls.

Adrenal Hyperplasia, Congenital

Perceptual learning disability in a case of salt-wasting congenital adrenal hyperplasia.

Gajre, Mona P.; Saroj, Dinesh; Surve, Suchitra; Kuttikadan, Mary
E-mail:monapote@yahoo.co.in

Lokmanya Tilak Municipal General Hospital - Department of Paediatrics
Journal of Taibah University Medical Sciences 2014; 9 (3): 236-238

Keywords: Learning Disorders; Cognition; Perceptual Disorders

Abstract: Specific learning disabilities have been rarely reported in congenital adrenal hyperplasia. The impact of hormones on cognition is still not clearly defined, but it is postulated that females with this condition have excess prenatal androgen stimulation, which increases the risk for cognitive impairment. The salt-wasting variety of congenital adrenal hyperplasia is usually associated with a low cognitive profile, and the risk increases exponentially with more episodes of crisis. We report an above-average cognitive profile in a male with salt-wasting congenital adrenal hyperplasia and a perceptual learning disability.

Air Pollution

An investigation of the effects of meteorology on air pollution in Makkah.

Habeebullah, Turki M.

Umm Al Qura University - The Custodian of the Two Holy Mosques Institute for Hajj Research

Assiut University Bulletin for Environmental Researches 2013; 16 (1): 63-85

Keywords: Meteorology; Risk Factors; Wind; Humidity; Atmospheric Pressure

Abstract: Air pollutant concentrations are not only affected by emission sources but also by meteorological variables. Meteorological variables play an important role in the dispersion, transport, photochemical reactions and formation of secondary air pollutants. In this study, the effect of meteorological variables on different air pollutant concentrations has been analyzed using correlation analysis and graphical presentation in Makkah, Saudi Arabia during the month of Ramadan [20 July to 18 August, 2012], which is the busiest month of the year after the Hajj season. PM10, had relatively weaker correlation with other air pollutants, most probably suggesting different sources of emission. Among meteorological variables, as expected temperature showed strong positive correlation with ozone [0.74], and negative correlation with NO_x, CO, SO₂, and PM10, whose concentrations are rather dependent on the emission sources. Wind speed disperses local pollutants, which probably explains why it was negative correlation with NO_x, SO₂ and CO, however it was positive correlation with ozone and PM10, probably because higher wind speed encourages sand storms and resuspension of particles from roadsides and bared deserts and transport of ozone from the surrounding rural areas. Relative humidity is positively correlated with PM10 and negatively correlated with the rest of the air pollutants. The effect of rainfall was negligible because no rain occurred during the study period. The effects of meteorological variables have also been analysed using polar plots and pollution roses, which provide further insight into the association between air pollutants and meteorology. Factors responsible for the high concentrations during the PM10 episode from 26 to 28 July 2012 were analyzed. Unexpectedly, atmospheric pressure and relative humidity seemed to be responsible for the episode, and not the sources of emissions, which are higher during the last 10 days of Ramadan [08 to 18 August].

Analgesics

A comparison of single versus multimodal analgesia in ablative maxillofacial surgical procedures.

Khan, Nadeem Ahmad; Ahmad, Munir; Anjum, Shaheen

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Pakistan Oral and Dental Journal 2014; 34 (3): 429-432

Keywords: Oral Surgical Procedures; Pain, Postoperative; Ketorolac; Tramadol; Bupivacaine; Analgesia

Abstract: Objectives of this study was to evaluate the analgesic effect of single vs multimodal analgesics in postoperative pain in ablative maxillofacial surgery and to investigate whether prophylactic treatment with multimodal nociceptive blockade will delay the onset of postoperative pain, decrease analgesic requirement, speed recovery time and facilitate early discharge in this surgical group. This experimental comparative study was conducted in Maxillofacial Operation Theatre of Nishter Institute of Dentistry, Multan during the period from August 2013 to Feb 2014 equal groups of 30 each using non probability convenience sampling technique. In Group A patients an intramuscular injection of Ketorolac 0.5mg/kg was given 45 min before induction of anaesthesia preoperatively. In group B patients intramuscular injection of 0.5mg/kg ketorolac + 2mg/kg body weight of Tramadol [IM] was given 45 min before induction of anaesthesia preoperatively + local infiltration of 0.5% injection bupivacaine was done 10 min before giving incision. In Group A patients, 17 patients [56.6%] had mild pain, 6 patients [20%] had moderate, 5 patients [16%] had severe and 2 patients [6.66%] had no pain. While in group B who received multimodal analgesia, the degree of postoperative pain was greater than in the group A in which 15 patients [50%] had mild pain, 2 patients [6%] had moderate pain and 13 patients [43.3%] had no pain. In group B, no patient suffered from severe pain. It was concluded that multimodal analgesia showed greater advantage over single analgesia in patients undergoing ablative maxillofacial surgical procedures.

Anemia, Iron-Deficiency

Iron deficiency anemia; association of breath holding spells with in children with iron deficiency anemia.

Zaman, Syed Qamar; Mahmood, Arshad; Ahmed, Shabbir; Mahmud, Shahid

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PNS Shifa Naval Hospital

Professional Medical Journal-Quarterly [The] 2014; 21 (4): 734-738

Keywords: Breath Holding; Child; Case-Control Studies

Abstract: To determine the association of breath holding spells with iron deficiency anemia in children. Case control study. Military Hospital Rawalpindi from Jun 2012 to Dec 2012. Sixty children of either gender meeting inclusion criteria aged 6 months to 5 years with 30 of breath holding spells in case group and 30 in control group as healthy children were included in the study after informed consent from parents. Complete blood picture and serum ferritin levels were performed of all children in both case and control groups. Tests were carried out at AFIP Rawalpindi. All data was entered and analyzed using SPSS version 10. Frequencies and percentages were calculated for categorical [qualitative] variables like sex and children having iron deficiency anemia in cases and controls. Mean and Standard Deviation [SD] was calculated for numerical [quantitative] variable like Age. Odds ratio was calculated from the data of cases and controls. Regarding iron deficiency anemia p value <0.05 was considered as significant. In this study, we recorded 43.33% [n=13] cases were between 0.6-3 years and 56.67% [n=17] were between 4-5 years while 53.33% [n=16] controls were between 0.6-3 years and 46.67% [n=14] were between 4-5 years. Mean +/- SD was calculated as 3.3+1.46 years in cases and 2.93+1.48 years in control group. Male children were 60% [n=18] in patient group and 46.67% [n=14] in controls group. Female children were 40% [n=12] in patient and 53.33% [n=16] in control group respectively. Association of breath holding spells with iron deficiency anemia in children revealed as 56.67% [n=17] in cases and 3.33% [n=1] in control group while remaining 43.33% [n=13] in cases and 96.67% [n=29] in control group had no findings of this association. P value was calculated as <0.0001 and Odds Ratio was 37.92 which shows a significant difference between the two groups. The association of breath holding spells with iron deficiency anemia in children is significantly higher than healthy controls. So, it is recommended that every child who present with breath holding spells should be evaluated for iron deficiency anemia.

Anesthesia

Awareness of patients regarding anesthesia; attitude towards basic types of anesthesia techniques.

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Isra University Hospital

Professional Medical Journal-Quarterly [The] 2014; 21 (4): 782-787

Keywords: Awareness; Patients; Attitude; Knowledge; Anesthesia, General; Anesthesia, Conduction; Prospective Studies

Abstract: Awareness of patients regarding anesthesia and their attitude towards basic types of anesthesia techniques. The purpose of this study was to assess the knowledge of patients regarding anesthesia, their attitudes towards basic types of anesthesia techniques and effect of previous experience of anesthesia on the awareness. Descriptive observational study. This descriptive, prospective study was conducted in the Isra university hospital Hyderabad, Sindh, Pakistan from 2nd August 2013 upto 8th March 2014. Two hundred thirty one patients were included in the study after taking verbal informed consent. All patients who were scheduled for elective surgery were interviewed while patients who had refused from participation, have language barrier, psychiatric disease, had lack of sufficient mental capacity due to poor health status and patients undergoing emergency surgeries were excluded from the study. Patients were interviewed in their local language upon arrival in the preoperative area of operation theatre. Self made questionnaire was filled. All the data was entered on SPSS version 16. Frequency and percentages were calculated to show the results. Mean with SD of patients age was computed. Chi-square test was applied to assess the affect of previous experience of surgery on patient's knowledge regarding anesthesia. P value less than 0.05 was taken as significant. Total 231 patients were included in the study. Mean age of the patients was 36 +/- SD 1.01. Fifty one [22.1%] patients were illiterate; while 54 [23.4%] patients were graduate. 103[44.6%] patients had previous experience of surgery/ anesthesia while 128[55.4%] patients had no experience. Out of 231 patients, 111 [48.1%] patients were aware of different type of anesthesia techniques while 120[51.9%] patients were not aware. Out of 103 patients, who had previous exposure of anesthesia, 64 patients answered correctly about different types of anesthesia techniques while 81 patients who had no previous exposure of anesthesia, answered incorrectly [P value = 0.000]. Fifty three patients who had previous exposure of anesthesia answered correctly that anesthetist is a qualified doctor, while 62 patients answered incorrectly who had no previous exposure [P value=0.546]. Out of 231 patients, 91 [39.39%] patients were in favor of having general anesthesia while 52[22.51%] patients were in favor of regional anesthesia, while 88[38.0%] had left the choice on surgeon. Results of the study show poor knowledge of patients regarding anesthesia and anesthesiologists. Majority of the patients were in favor of having general anesthesia rather regional anesthesia. There is need to correct the misconceptions of patients and to educate the public.

Angioplasty, Balloon

methods

Duplex-guided percutaneous transluminal balloon angioplasty of superficial femoral artery.

Hassan, Haitham A.; Thabet, Bahgat A.H.; Yousef, Hosam E.A.; Atallah, Khaled A.A.
Assiut University - Department of Vascular Surgery and Radiodiagnosis

Assiut Medical Journal 2013; 37 (1): 135-146

Keywords: Femoral Artery; Prospective Studies; Postoperative Complications; Follow-Up Studies; Treatment Outcome

Abstract: The standard technique of balloon angioplasty of superficial femoral artery requires contrast arteriography and fluoroscopy. We attempted to perform this procedure with duplex guidance to avoid the use of nephrotoxic contrast material and eliminate radiation exposure. Materials and Methods: From October 2009 to December 2011, 48 patients [64.6% male] with a mean age of 68 +/- 8 years [range, 55-92 years] underwent balloon angioplasty of short [<4 cm in length], easily visualized superficial femoral artery stenotic/occluded lesions under duplex guidance. Diabetes, smoking, hypertension, renal insufficiency [serum creatinine level >1.5 mg/dl], and hyperlipidemia were present in 33.3%, 66.7%, 41.7%, 54.2%, and 62.5% of patients, respectively. Disabling claudication was the indication for the procedure in 68.8% of cases, and critical limb ischemia was the indication in 31.2%. Based on color-coded duplex examination, patients were assigned into two groups. Group I included 30 cases [62.5%] with arterial stenoses, whereas Group II included 18 cases [37.5%] with arterial occlusions. The ipsilateral common femoral artery was cannulated under direct duplex visualization. Still under duplex guidance, a guidewire was directed into the superficial femoral artery, across the diseased segment, and parked at the tibioperoneal trunk. The diseased segment was then balloon-dilated. Balloon diameter and length were chosen according to arterial measurements obtained by duplex scan. Hemodynamically significant defects causing diameter reductions greater than 30% and peak systolic velocity ratios greater than 2 were stented with self-expandable stents under duplex guidance. Completion duplex examinations and ankle brachial indices were obtained routinely before hospital discharge. Whereas, the overall technical success rate was 95.8% [46/48 cases], it was 100% [30/30 cases] in Group I, and 88.9% [16/18 cases] in Group II. There was no statistically significant difference in technical success between the two groups [P value = 0.1]. Hemodynamically significant residual defects that required stenting were documented in 6 [13%] of the 46 successfully cannulated cases. There was no statistically significant difference regarding the need for stenting between the two groups [P value = 1]. After successful DGBA, the PSV [in 30 patients] decreased significantly from a mean of 419 +/- 27 cm/sec to 111 +/- 20 cm/sec [P value <0.0001], and the PSV ratio decreased significantly from a mean of 7.4 +/- 1.2 to 1.2 +/- 0.2 [P value <0.0001]. On the other hand, the ABI [in 46 patients] increased significantly from a mean of 0.5 +/- 0.1 to 0.9 +/- 0.1 [P value <0.0001]. The overall 6-month survival and limb salvage rates were 100%. The overall 6-month patency rate was 91.3% [42/46 cases]. There was no statistically significant difference regarding the patency rate between the two groups [P value = 0.1]. Duplex-guided balloon angioplasty and stent placement is a safe, effective alternative to the standard fluoroscopy guidance for the treatment of short, adequately visualized SFA stenotic/occluded lesions. It offers multiple advantages, including guidance of the arterial access, precise selection of the balloons and stents, and confirmation of the adequacy of the technique by reliable hemodynamic and imaging parameters.

Antigens, CD34

Generation and characterization of anti-CD34 monoclonal antibodies that react with hematopoietic stem cells.

Maleki, Leili Aghebati; Majidi, Jafar; Baradaran, Behzad; Movassaghpour, Aliakbar; Abdolalizadeh, Jalal
Tabriz University of Medical Sciences - Immunology Research Center

Cell Journal [Yakhteh] 2014; 16 (3): 361-366

Keywords: Antibodies, Monoclonal; Hematopoietic Stem Cells; Mice, Inbred BALB C

Abstract: CD34 is a type I membrane protein with a molecular mass of approximately 110 kDa. This antigen is associated with human hematopoietic progenitor cells and is a differentiation stage-specific leukocyte antigen. In this study we have generated and characterized monoclonal antibodies [mAbs] directed against a CD34 marker. Mice were immunized with two keyhole limpet hemocyanin [KLH] -conjugated CD34 peptides. Fused cells were grown in hypoxanthine, aminopterin and thymidine [HAT] selective medium and cloned by the limiting dilution [L.D.] method. Several monoclones were isolated by three rounds of limited dilutions. From these, we chose stable clones that presented sustained antibody production for subsequent characterization. Antibodies were tested for their reactivity and specificity to recognize the CD34 peptides and further screened by enzyme-linked immunosorbent assay [ELISA] and Western blotting analyses. One of the mAbs [3D5] was strongly reactive against the CD34 peptide and with native CD34 from human umbilical cord blood cells [UCB] in ELISA and Western blotting analyses. The results have shown that this antibody is highly specific and functional in biomedical applications such as ELISA and Western blot assays. This monoclonal antibodies [mAb] can be a useful tool for isolation and purification of human hematopoietic stem cells [HSCs].

Antitubercular Agents

Anti-tuberculosis therapy; derangement in liver enzymes among patients undergoing anti-tuberculosis therapy.

Khan, Fardah Yunus Muhammad; Qazi, Rizwan Aziz; Jadoon, Muhammad Yunus; Rajput, Tausif Ahmed
Pakistan Institute of Medical Sciences

Professional Medical Journal-Quarterly [The] 2014; 21 (4): 728-733

Keywords: Liver-enzymology; Tuberculosis; Liver Function Tests

Abstract: Tuberculosis [TB] is a major cause of illness and death worldwide, especially in Asia and Africa. An effective control has been achieved by the widespread use of ATT. It has been postulated that hepatotoxicity induced by ATT is not truly idiosyncratic in essence; rather certain genetic and environmental factors are attributed to coincide to produce sufficient quantity of toxic metabolites that then cause varied alterations in liver functions. Objective of the study was to determine the frequency of derangement of liver enzymes in patients taking anti-tuberculous therapy within the first 8 weeks of therapy. A descriptive case series study. The study was conducted at the inpatient and out-patient department of general medicine of Pakistan Institute of Medical Sciences [PIMS], Islamabad for blood sampling and biochemical assays. The study was performed on a total of 114 patients of tuberculosis. ATT was started after baseline liver function tests. Liver function tests were repeated at 4 weeks and 8 weeks to observe the effects on liver enzymes derangement. 12 patients had deranged LFTs while 102 patients had normal LFTs after 4 weeks of treatment while 10 patients had deranged LFTs and 104 patients had normal LFTs after 8 weeks of treatment. Anti-tuberculosis drugs induced hepatotoxicity occurs less frequently. All patients put on anti-tuberculous therapy must be followed up for at least the initial 4 weeks, and the patient and caregivers should be told how to recognize signs of anti-tuberculous induced hepato-toxicity.

Aortic Aneurysm, Abdominal

diagnosis

Concurrent Salmonella mycotic abdominal aneurysm and empyema thoracis: a rare coincidence.

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Medical Principles and Practice 2014; 23 (5): 482-484

Keywords: Empyema-diagnosis; Salmonella enteritidis; Mycoses; Tomography, X-Ray Computed; Bacteremia

Abstract: To present a case of Salmonella bacteremia with a rare metastatic focus. Clinical Presentation and Intervention: A 61-year-old male presented with a suicide attempt after ingestion of half a bottle of toilet cleaner. He had a medical history of intravenous drug abuse and major depression. Persistent Salmonella enteritidis bacteremia occurred during his hospitalization, and a search for the primary source of infection disclosed a mycotic abdominal aortic aneurysm. A suppurative lesion was also noted over the left pleural space, and Salmonella empyema was confirmed after thoracentesis. He underwent video-assisted thoracoscopic surgery and endovascular repair of the abdominal aortic aneurysm and was placed on long-term antibiotics, without recurrence. S. enteritidis involvement of the cardiovascular system is a rare coincidence and results in significant morbidity and mortality. In addition, the phenomenon of secondary metastatic infective foci involving the pleural space has an even lower frequency than that of cardiovascular involvement. Therefore, a high index of suspicion and prompt treatment from the treating physicians are strongly recommended.

Areca

Prevalence of areca nut eating habits and incidence of oral submucosal fibrosis in school children-a prospective cross-sectional survey.

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Pakistan Oral and Dental Journal 2014; 34 (3): 462-466

Keywords: Habits; Eating; Prevalence; Oral Submucous Fibrosis-epidemiology; Schools; Child; Incidence; Prospective Studies; Cross-Sectional Studies; Questionnaires

Abstract: The objective was to study the prevalence of areca nut [Chalia] eating habits and its effects on the incidence of oral submucosal fibrosis [OSF] among school children. A prospective cross-sectional survey was conducted in schools with a sample size of 1092. All children aged between 6-15 years were included in the study. The cases were diagnosed clinically by a single examiner for the presence of OSF. A questionnaire based on areca nut eating habit got filled. Yates corrected Chi-Square Test was applied between the incidence of oral submucosal fibrosis [OSF] and the frequency, duration and severity of symptoms. One thousand ninety two [1092] children were

surveyed with males 66.5%. A total of 79.6% of children reported areca nut eating habit. The incidence of oral submucosal Fibrosis was 6.6% in school children. Majority of subjects chewed 1-3 sachets daily of areca nut [43.6%]. Subjects with 1-6 months duration of habit were 47.1%. There exists a relationship between the frequency and duration of areca nut eating habits with the presence and severity of symptoms of oral submucosal fibrosis [$p=0.001$]. Areca nut eating habit is increasingly becoming prevalent among lower age group of school children. There exists significant relationship between the frequency and duration of areca nut eating habits with the incidence of oral submucosal fibrosis among school children [$p=0.001$].

Arthralgia

Arthralgia in computer users in Almadinah Almunawwarah, Kingdom of Saudi Arabia.

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Journal of Taibah University Medical Sciences 2014; 9 (3): 250-255

Keywords: Computers; Low Back Pain; Neck Pain; Wrist; Shoulder Pain; Cross-Sectional Studies; Questionnaires

Abstract: Excessive use of computers causes many health problems, including joint and back pain. The aim of this study was to determine the pattern of neck, wrist, shoulder and low back pain among computer users and in particular among bank employees. We conducted a cross-sectional survey of bank employees working in the province of Almadinah Almunawwarah, Kingdom of Saudi Arabia, using a self-administered questionnaire. Frequencies, percentages and arithmetic means [\pm SD] were calculated. The chi-squared test, Student's t test and correlation coefficients were used appropriately. A p value <0.05 was considered significant. The response rate was 87.7% [114/130]. The mean age of the population was 32.7 \pm 5.80 years. The mean duration of computer use was 11.7 \pm 4.48 years, with a significant difference between men and women [$p = 0.001$]. The mean daily length of use of computers was 8.2 \pm 2.68 h. Most people [87.7%] were continuous users; nevertheless, 78.1% took breaks, of whom 68.5% were women. More than one third [36.6%] of episodes of pain were tingling in nature, with a significant male-female difference [$p = 0.012$]. More than half the pain attacks [56.1%] were relieved by massage and 32.9% by medication, rest or exercise. All the pain sites were correlated with gender, using support and taking breaks. Men used computers more than women, and most used them continuously. More than half of pain episodes were relieved by massage. The pain site was correlated with gender, using supports and taking breaks. Public education and guidelines for the safe use of computers should be provided and observed by computer users.

Aryldialkylphosphatase

blood

Serum paraoxonase 1 activity and oxidative stress in pediatric patients with pulmonary tuberculosis.

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Medical Principles and Practice 2014; 23 (5): 426-431

Keywords: Oxidative Stress; Pediatrics; Tuberculosis, Pulmonary; Child; Antioxidants

Abstract: The aim of this study was to determine the oxidative stress and paraoxonase 1 [PON1] levels in children with pulmonary tuberculosis [TB] compared to healthy controls, and to examine the association of demographical with oxidative stress. Forty children diagnosed with pulmonary TB and 40 age- and gender-matched healthy controls were enrolled in the study. Serum total antioxidant status [TAS], total oxidant status [TOS] and PON1 levels were measured. The oxidative stress index [OSI] was calculated to indicate the degree of oxidative stress. The TAS levels were lower [1.73 \pm 0.5 vs. 2.54 \pm 1.2 micromol Trolox Eq/l] while TOS levels were significantly higher [26.9 \pm 14.4 vs. 13.4 \pm 7.7 micromol H₂O₂ Eq/l] in the TB group than in the controls [$p < 0.001$]. The OSI was significantly higher in the TB group than in the controls [21.2 \pm 5.1 vs. 6.5 \pm 4.9 units, $p = 0.006$]. Serum PON1 levels were significantly lower in the TB group than in the controls [14.2 \pm 13.2 vs. 28.4 \pm 17.3 U/l, $p < 0.001$]. The lower PON1 levels correlated with TAS and OSI levels but not with anthropometric parameters [$r = 0.264$, $p = 0.018$ and $r = -0.255$, $p = 0.023$, respectively]. The TOS and OSI levels were higher and the TAS and PON1 levels were lower in pediatric patients with pulmonary TB when compared to healthy controls. This indicates greater oxidative stress in the patients.

Asthma

Asthmatic children; knowledge and practices in the parents.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 739-744

Keywords: Health Knowledge, Attitudes, Practice; Child; Parents; Cross-Sectional Studies

Abstract: To determine the knowledge and practice of parents of children with Asthma. Asthma is a disease characterized by recurrent attacks of breathlessness and wheezing typically begins in early childhood with an earlier onset in males than females. Life time prevalence of asthma is 13.5% and current asthma prevalence of 9.3% among children <18 years. According to WHO 15 million disability adjusted life years [DALY] are lost annually due to Asthma. Prevalence of asthma in Pakistani children is 19%. Due to rapid industrialization and urbanization prevalence of Asthma has increased from 9 to 20% during the last decade. This study was conducted to assess the extent of knowledge and practice which are associated with the control of Asthma. It was descriptive cross sectional study conducted in ED, Pediatric unit CHK. Sampling was convenience and the study duration six months. One hundred and twenty parents of asthmatic children from 4-13 years of age were selected. Average age of the children was 7.69 +/- 2.58 years [95% CI: 7.23 to 8.16] and average duration of illness was 3.08 +/- 2.0 years [95% CI: 2.69 to 3.45]. Minimum duration was two years and maximum ten years. One hundred and four mothers [86.7%] and 16 fathers [13.3%] participated in the study. Over all asthma knowledge and practice of parents was adequate in 20[16.7%], inadequate in 46[39.3%] and average in 54 [45%]. Asthma knowledge especially about the management is inadequate and practices are also inappropriate in the urban population of Karachi.

diagnosis

Can appropriate diagnosis and treatment of childhood asthma reduce excessive antibiotic usage?

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Medical Principles and Practice 2014; 23 (5): 443-447

Keywords: Asthma-therapy; Child; Anti-Bacterial Agents

Abstract: This study compared the frequency of antibiotic usage and the number of asthma episodes before and after the diagnosis and treatment of pediatric asthma patients who were followed up by specialists. Included in this study were 334 patients [211 males and 123 females] of 2-16 years of age who were diagnosed with asthma and followed up for at least 1 year in our clinic. The frequency of antibiotic usage and the number of asthma episodes in the year prior to diagnosis and treatment were compared to these same variables after 1 year of follow-up by specialists. The median age was 84 months [range: 24-192] and 212 [63%] children were at school or in day care centers. Atopy and a family history of asthma were present in 200 [60%] of the patients, and 137 [41%] reported that at least one member of their household smoked. Antibiotics were used a median number of 7 times [interquartile range [IQR] = 6] in the year before the asthma diagnosis, and 2 times [IQR = 3] during the year after treatment [$p < 0.001$]. The mean number of asthma episodes before diagnosis, i.e. 4 [IQR = 8] was reduced to 0 [IQR = 2] in the year after treatment when the patients were followed up by specialists [$p < 0.001$]. This study shows that appropriate diagnosis and treatment of childhood asthma significantly reduce the frequency of antibiotic usage and the number of asthmatic episodes.

drug therapy

Moderate persistent asthma in children; comparison of inhaled beclomethasone with oral montelukast in the management.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 704-716

Keywords: Child; Beclomethasone-therapeutic use; Administration, Inhalation; Acetates; Quinolines; Administration, Oral; Disease Management

Abstract: The objective of this study is to compare the effects of inhaled beclomethasone with oral montelukast in long term management of moderate persistent asthma in children. Quasi experimental study. 6 months, from July 20, 2007 to January 20, 2008. Out patient paediatric department at Fauji Foundation hospital, Rawalpindi. 80 children between 5-12yrs of age presenting with moderate persistent asthma, divided in two groups of 40 each. Group A treated with beclomethasone inhaler while Group B was started on oral montelukast. Drugs effect was recorded on a 2 wky proforma for 8 weeks. There were 54[67.5%] male and 26[33%] female. Most common triggering factor seen in 54[67.5%] patients was recent history of respiratory tract infection, exposure to carpet dust in 43[53.75%], cigarette smoke in 42[52.5%], recent psychological stress in 28[35%], pollen allergy in 26 [32.5%],

pets exposure in 8 [10%] and to mite was noticed in 5[6.25%] children. Marked improvement was observed in day time cough in group A with 10[25%] patients being free of cough with inhaler, while 20[50%] showed mild intermittent symptoms. 1[2.5%] showed mild persistent symptoms. In Group B 3[7.5%] patients were symptom free, 23[57.5%] with mild intermittent and 4[10%] with mild persistent symptoms while 6[15%] continued to have moderate persistent symptoms. P value was 0.01. Regarding day time breathlessness, P value was significant of 0.258. Similarly marked improvement was observed in night symptoms of breathlessness, cough and sleeplessness in both groups. P value was less than 0.05 in majority of the variables showing statistically significant improvement with inhaled beclomethasone than with oral montelukast. Inhaled beclomethasone is superior to oral montelukast in controlling chronic symptoms of childhood asthma.

Atrioventricular Node

physiology

Gender differences in the electrophysiological properties of rabbit atrioventricular node.

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Assiut Medical Journal 2013; 37 (1): 181-186

Keywords: Electrophysiology; Sex Differentiation; Rabbits

Abstract: There are gender differences in the electrocardiographic parameters and in the prevalence of arrhythmias. Women have faster heart rate, longer QT interval, shorter PR interval and shorter atrioventricular node [AVN] effective refractory period as compared to men. These changes may be due to gender differences in ion channel expression and thereby in currents responsible for the electrophysiological function of the AVN. Gender differences in the electrophysiological function in the AVN have been investigated using extracellular potential recording from isolated spontaneously beating A-VN preparations from adult male and female New Zealand White rabbits under control conditions and after the application of ion channel blockers. Cycle length of isolated A-VN preparations was significantly longer in adult female as compared to adult male. 2 mM Cs, an I_f blocker, significantly increased the cycle length of adult male [i.e. slowed the spontaneous activity of the AVN; by 120%] and tended to increase the cycle length in adult female by 28%. Hundred nM TTX, a blocker of TTX sensitive neuronal I_{Na} tended to increase the cycle length of both adult male and female. In conclusion, I_f and TTX-sensitive currents may be partly responsible for the difference in AVN cycle length and thereby in the AVN rate/pacemaking between adult male and female.

Autoimmune Diseases

Screening for autoimmune diseases in type 1 diabetes: low incidence of adrenal insufficiency.

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Journal of Taibah University Medical Sciences 2014; 9 (3): 224-227

Keywords: Diabetes Mellitus, Type 1; Adrenal Insufficiency; Addison Disease; Mass Screening; Retrospective Studies

Abstract: Primary Adrenocortical insufficiency [Addison's disease] is a potentially fatal condition that often develops incidentally and can be easily overlooked. Although rare in the general population, it is more common in patients with type 1 diabetes mellitus [T1D]. In this study, we reviewed our experience with the occurrence of associated adrenal insufficiency [AI] in children with T1D over 15 year's period at King Khalid University Hospital [KKUH], Riyadh, Saudi Arabia. This is a retrospective hospital based study, included children and adolescents with T1D at KKUH in the period January 1995-December 2012. All patients were serologically screened for Celiac and thyroid diseases. Adrenal function was assessed at the time of diagnosis, and annually thereafter by measuring serum cortisol and adrenal corticotrophic hormone [ACTH] using the available commercial kit. Adrenal cortex antibodies [AAA] test was done by Bioscientia laboratory, Germany, in one patient. In a cohort of 305 children and adolescents with T1D at KKUH, only one patient was found to have AI as a part of autoimmune polyendocrine syndrome type 1. Thyroid functions were abnormal in 65 [21.3%] patients. Of these, 26 [8.5%] patients have evidence of overt hypothyroidism and 39 [12.8%] patients had subclinical hypothyroidism. In twenty-six patients [8.5%], the intestinal biopsy results were positive for CD. There is no international consensus on the issue of screening for AI in children with T1D. In our experience, we do not favour screening for AI in children with T1D unless there is a clear risk factor.

therapy

Lentiviral mediating genetic engineered mesenchymal stem cells for releasing IL-27 as a gene therapy approach for autoimmune diseases.

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Cell Journal [Yakhteh] 2014; 16 (3): 255-262

Keywords: Genetic Therapy; Genetic Engineering; Mesenchymal Stromal Cells; Interleukin-27; Inflammation

Abstract: Autoimmune diseases precede a complex dysregulation of the immune system. T helper17 [Th17] and interleukin [IL]-17 have central roles in initiation of inflammation and subsequent autoimmune diseases. IL-27 significantly controls autoimmune diseases by Th17 and IL-17 suppression. In the present study we have created genetic engineered mesenchymal stem cells [MSCs] that mediate with lentiviral vectors to release IL-27 as an adequate vehicle for ex vivo gene therapy in the reduction of inflammation and autoimmune diseases. In this experimental study, we isolated adipose-derived MSCs [AD-MSCs] from lipoaspirate and subsequently characterized them by differentiation. Two subunits of IL-27 [p28 and EB13] were cloned in a pCDH-513B-1 lentiviral vector. Expressions of p28 and EB13 [Epstein-Barr virus induced gene 3] were determined by real time polymerase chain reaction [PCR]. MSCs were transduced by a pCDH-CMV-p28-IRESEBI3- EF-copGFP-Pur lentiviral vector and the bioassay of IL-27 was evaluated by IL-10 expression. Cell differentiation confirmed true isolation of MSCs from lipoaspirate. Restriction enzyme digestion and sequencing verified successful cloning of both p28 and EB13 in the pCDH-513B-1 lentiviral vector. Real time PCR showed high expressions level of IL-27 and IL-10 as well as accurate activity of IL-27. The results showed transduction of functional IL-27 to AD-MSCs by means of a lentiviral vector. The lentiviral vector did not impact MSC characteristics.

Bacillus

Frequency of acid fast bacilli [AFB]; samples submitted for Ziehl Neelson technique.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 701-703

Keywords: Sputum; Suppuration; Urine; Tuberculosis; Mycobacterium tuberculosis

Abstract: To determine the frequency of Acid Fast Bacilli [AFB] in samples submitted for Ziehl Neelson [Z. N] Technique. An Observational study. This study was carried out from July 2010 to Dec 2012 at Dept. of Clinical pathology Main Laboratory Jinnah Post Graduate Medical Centre [JPMC] Karachi. A total of 5064 samples were received in the department of clinical pathology main laboratory, JPMC, Karachi during the study period. We determined the presence of AFB in samples by Z.N Technique. Out of total 5064 samples, 518 [10.2%] specimens revealed the presence of AFB. The samples received were: sputum 4787 [503 positive; 10.5%], pus 56 [01 positive; 1.7%], fluid 118 [no positive], gastric 93 [14 positive; 15%]; urine 10 [not positive]- . Lower rate of positivity for Acid Fast Bacilli by Z.N Technique can be increased by Fluorescence microscopy and culture technique.

Background Radiation

adverse effects

Alterations of PSA, CA15.3, CA125, Cyfra21-1, CEA, CA19.9, AFP and Tag72 tumor markers in human blood serum due to long term exposure to high levels of natural background radiation in Ramsar, Iran.

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Shiraz University of Medical Sciences - The Center for Research in Radiation Sciences

International Journal of Radiation Research 2014; 12 (2): 123-128

Keywords: Gamma Rays; Radon; Prostate-Specific Antigen; CA-125 Antigen; Mucin-1; Antigens, Neoplasm; Keratin-19; Carcinoembryonic Antigen; CA-19-9 Antigen; alpha-Fetoproteins; Tumor Markers, Biological; Serum

Abstract: Ramsar [Mazandran province] is known for its extremely high levels of natural background radiation. Although no excess cancer rate is reported in these areas by epidemiological studies, the study of tumor markers in the inhabitants of these areas may shed some light on the impact of high levels of background radiation on cancer induction. The level of background gamma radiation as well as indoor radon was determined using RDS-110 and CR-39 dosimeters. Thirty five individuals from a high background radiation area [HBRA] and 53 individuals from a normal background radiation area [NBRA] were randomly selected to participate in the study. Commercial ELISA kits [sandwich type ELISA tests] were used to measure the serum levels of PSA, CA15.3, CA125, Cyfra21-1, CEA, CA19.9, AFP and Tag72 tumor markers. Among the eight biomarkers investigated, the means of PSA, CA15.3,

CA125, CA19.9 and AFP concentrations between the HBRA and NBRA were not significantly different. However, Cyfra21, CEA and Tag72 in HBRA group revealed statistically significant increases compared to those of NBRA group [$P < 0.05$]. Furthermore, a statistically significant correlation between the external gamma dose as well as indoor radon level and the concentration of CEA [$P < 0.001$], Cyfra-21 [$P < 0.001$] and TAG 72 [$P < 0.001$ and 0.01 respectively] biomarkers were observed. Chronic exposure to high background radiation induces significant alterations in Cyfra21, CEA and Tag72 levels. We believe that studies with other relevant tumor markers might overcome the limitations of epidemiological studies on cancer incidence in high background radiation areas.

Bees

Estimating the losses of honey bee colonies and their potential causes within the beekeepers at Assiut governorate [Upper Egypt], during three years survey by using questionnaire method.

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Assiut University Bulletin for Environmental Researches 2013; 16 (1): 41-62

Keywords: Honey; Questionnaires; Efficiency

Abstract: This study records the data of three years, 2009/2010, 2010/2011 and 2011/2012 survey of losses in managed honey bee colonies in Assiut governorate. The survey of colony losses and potential causes was obtained via questionnaire method. The surveyed beekeepers had lost a total of 4639 colonies between September and March. Colony loss percentages were 15.78 in 2009/2010; 28.11 in 2010/2011 and in 2011/2012 15.6. Survey information indicated that colony losses range widely depending on the operation size of the beekeepers. Commercial beekeepers [those operating more than >200 colonies] lost the lower number of colonies as compared to hobbyist, intermediate and semi-commercial beekeepers. Oriental hornets, poor quality queens, pesticides and CCD-like symptoms were the leading self-identified reasons of losses as reported by most beekeepers. Finally, it must circulate such as this questionnaire over all Egypt to understand the extent of the problem and try to find out the resolve.

beta-Thalassemia

Is beta-thalassaemia minor associated with metabolic disorder?.

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Medical Principles and Practice 2014; 23 (5): 421-425

Keywords: Metabolic Syndrome X; Case-Control Studies; Electrophoresis; Hemoglobins; Insulin Resistance

Abstract: To investigate the frequency of metabolic syndrome and its components in subjects with beta-thalassaemia minor. A total of 194 subjects, i.e. 92 subjects with beta-thalassaemia minor [study group] and 102 subjects without beta-thalassaemia minor [control group], were enrolled into this case-control study. Haemoglobin electrophoresis was performed on all patients. The waist circumference and systolic and diastolic blood pressure of the subjects were recorded. Fasting blood glucose and serum lipid levels were measured. Both groups were similar in terms of age and sex [$p > 0.05$ for each]. The percentages of haemoglobin A2 [4.3 +/- 0.4 vs. 2.0 +/- 0.3] and haemoglobin F [3.38 +/- 1.4 vs. 0.26 +/- 0.4] and the mean corpuscular volumes [64 +/- 4.7 vs. 81.5 +/- 9.3] of the groups were statistically different [$p < 0.001$ for each]. The frequency of metabolic syndrome and its components was similar in both groups [$p > 0.05$ for each]. According to correlation analyses, the percentage of haemoglobin A2 correlated with fasting insulin, fasting glucose, systolic blood pressure, high-density lipoprotein, and low-density lipoprotein levels [$p < 0.05$]. No association was found between beta-thalassaemia minor and metabolic syndrome despite insulin resistance, which was shown in subjects with beta-thalassaemia minor.

Blood

radiation effects

Protective effects of sulfated derivatives of polysaccharides extracted from Auricularia auricular on hematologic injury induced by radiation.

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Harbin Institute of Technology

International Journal of Radiation Research 2014; 12 (2): 99-111

Keywords: Polysaccharides; Sulfates; Protective Agents; Radiation; Rats, Wistar; Agaricales; Gamma Rays; Mice; Radiation-Protective Agents

Abstract: Ionizing radiation induces the production of reactive oxygen species [ROS], which play an important

causative role in cell death. The aim of this study was to investigate the protective effects of sulfated derivatives of neutral polysaccharides extracted from *Auricularia auricular* [SNAAP]. Whole blood samples from healthy donors treated with SNAAP at different concentrations [20, 60, 100 microg/mL] were exposed to various doses of X-rays. Wistar rat spleen lymphocytes, in cultures, were treated with SNAAP at different concentrations [20, 60, 100 microg/mL] in the presence p.o 12 hours prior to 8 Gy gamma radiation exposure. Animals were administered with SNAAP at doses of 50, 100 or 200 mg/kg body weight d p.o 7 days prior to sub-lethal doses [6 Gy] of whole body gamma radiation exposure. SNAAP is an effective radio protector against X-ray radiation induced in vitro cellular damage in human peripheral blood. Furthermore, to support this finding the effect of SNAAP on a rat's spleen lymphocytes, when cultured and examined 24 hours after exposure to 8 Gy gamma of radiation, demonstrated the effect of polysaccharides on a rat's spleen lymphocytes, pretreated by the SNAAP, can increase the cell viability compared with irradiated group at a concentration of 20, 60 and 100 microg/mL. Likewise, this radiation-induced therapy decreased each mouse's body weight and effectively stimulated the immune system of all radiated mice. Moreover, when induced by Co60, the SNAAP decreased the level of malondialdehyde [MDA] and increased the myeloperoxidase [MPO] and the glutathione peroxidase [GSH-Px] activity in the whole blood supply of the irradiated mice. These encouraging results support further research into the clinical pharmacology of SNAAP as a novel agent for human radiation protection.

Body Temperature

[A study of the association between oral temperature and sleepiness among night-shift workers in a glass industry]

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Qom University of Medical Sciences Journal 2014; 8 (4): 27-33

Keywords: Sleep; Work Schedule Tolerance; Glass; Industry; Cross-Sectional Studies

Abstract: Night-shift work has adverse effects on workers' health, productivity, and occupational safety. Night workers have complaints about sleepiness, decreased performance, and sleep disorders, due to disruption of circadian rhythm function. This research aimed to determine the level and process of sleepiness among night workers of a hot industry and evaluate its correlation with oral temperature. This study was performed as a cross-sectional study on 80 night-shift workers who were exposed to heat. The sleepiness level of the subjects was measured by Stanford Sleepiness Scale and their oral temperature were recorded at different hours [from 22 pm to 4 am] for two consecutive nights. Data analysis was performed using independent and paired t-tests, one-way ANOVA, repeated measures ANOVA, and Pearson correlation coefficient. The significance level was considered to be $p < 0.05$. In this study, an increasing linear trend over time was observed for sleepiness index [$p < 0.001$]. The mean of oral temperature had an increasing trend from 11 pm to 1 am and a decreasing trend afterward [$p < 0.001$]. Also, the mean sleepiness index in the measurement hours of the second night was higher than that of the first night [$p < 0.001$], but, the mean oral temperature in the second night was consistent with the results obtained in the first night. The sleepiness index among night-shift workers was significantly decreased with increasing oral temperature [$r = 0.24$, $p = 0.03$]. According to the findings of this study, there was an inverse correlation between sleepiness and oral temperature after a few hours of exposure to heat. In this study, sleepiness symptoms were subjectively recorded based on the workers' self-expression; therefore, it is suggested that paraclinical trials, such as hormonal assessments be considered.

Bone Marrow Transplantation

Protocol for dental treatment before bone marrow transplantation [BMT] in paediatric patients.

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Pakistan Oral and Dental Journal 2014; 34 (3): 399-404

Keywords: Dentistry; Pediatrics; Retrospective Studies; Pit and Fissure Sealants; Tooth; Tooth Extraction; Immunocompromised Host

Abstract: Bone marrow transplant [BMT] provides a chance to life for the patients with end-stage diseases like leukaemia, aplastic anaemia etc. The success of the transplantation procedure depends on the immune reactivity of the recipient patient, which may trigger the rejection. The aim of the present study was, to find out dental treatment needs in patients before BMT in Children's Hospital, Pakistan Institute of Medical Sciences [PIMS, Shaheed Zulfiqar Ali Bhutto Medical University] Islamabad, and also to make the dentists aware of the special needs of BMT patients, the specific medication and the necessity of an effective dental treatment. It was retrospective study done on 44 children who required BMT and were referred from oncology department of Children's hospital. Data of patients were taken from the hospital records. The age of patients ranged from 01-12 years with mean of 4.69 +/- 2.5 years. Out of total 44 patients, 12 were females and 32 were males. The difference in ratio between male and female patients is statistically significant [$P < 0.01$]. Patients were divided into 2 groups of 1-5 years and 6-12 years. The difference in ratio of males to females in age group of 1-5 years is also significant [$P < 0.01$]. Patients who required

dental treatment before Bone Marrow Transplant were 29 [65.5%], while 15[34%] patients did not require any dental treatment. This difference is highly significant [$P < 0.05$]. More dental treatment was required in age group of 1-5 years old children as compared to group of 6-12 years old. Total 101 teeth were restored, 13 teeth were extracted and 19 fissure sealants were placed. None of the patient showed dental infection after bone marrow transplant, therefore the protocol of the pre-BMT dental treatment was helpful in minimizing infection during immune-suppression period of post bone marrow transplantation.

Boron Neutron Capture Therapy

An investigation into the potential applicability of gel dosimeters for dosimetry in boron neutron capture therapy.

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International Journal of Radiation Research 2014; 12 (2): 139-149

Keywords: Radiometry; Gels; Phantoms, Imaging; Polymethyl Methacrylate

Abstract: The aim of this work was to establish how well gel dosimeters performed, as substitutes for brain tissue compared with standard phantom materials such as water, polymethyl-methacrylate [or PMMA], A150 plastic and TE- liquid phantom material for dosimetry of neutron beams in boron neutron capture therapy. Thermal neutron fluence, photon dose and epithermal neutron dose distributions were computed for the epithermal neutron beam of the optimized linac based BNCT. Amongst all investigated phantom materials, TE-liquid was shown to be a better substitute for brain tissue than other phantom materials. The differences between TE- liquid and brain at the depth of 6.1 cm for thermal neutron fluence, gamma dose and epithermal neutron dose distributions was calculated 2.80%, 2.40% and -13.87%, respectively. In comparison with the other gel dosimeters, LMD2 provided a better simulation of radiation transport in the brain. It's results differed from the real brain, at the depth of 6.1 cm, for thermal neutron fluence, gamma dose and epithermal neutron dose distributions, by -1.27%, 4.20% and 21.05% respectively. Even though, in gamma dose distribution the LMD2 has large deviation from brain tissue distribution, the deviation is approximately independent of depth, so the results can be multiplied by a constant coefficient to be more consistent with reality. Even though, TE- liquid showed satisfactory results for brain tissue substitution in BNCT, but some properties of gel dosimeters such as three dimensionality, make LMD2 a potentially good dosimeter for dosimetric verification in BNCT.

Brain Neoplasms

surgery

Briun tumor excision guided by neuron a vigation: practical application and results.

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Assiut Medical Journal 2013; 37 (1): 13-22

Keywords: Craniotomy; Postoperative Complications; Follow-Up Studies; Treatment Outcome; Hospitals, University

Abstract: Precise preoperative craniotomy planning and intra-operative lesion localization and orientation have always been paramount issue in neurosurgery. The most important issues are the capabilities of surgical navigation system in appreciation of anatomy to avoid critical structures, arteries and veins. Furthermore, surgical planning for precise craniotomy, localization of lesion, extent of tumor resection increase the confidence of surgeon. The brain lab system [vectorvision.3, Germany] was used for guidance to 30 intra cranial operations. They were 21 male and 9 female, the mean age was [47.1], the range of age group was from 21 year to 70 year. All patients with brain tumors were diagnosed and managed in the departments of neurosurgery at Maadi Armed Forces Hospital, Cairo and Assuit University Hospital Assuit during the period may 2010 to may 2012. This study has shown reduction of surgical time, decrease blood loss during operation, decrease length of 1CU stay. Histopathological diagnosis was meningioma in 12 patients [40.0%], glioblastoma multiform in 10 patients [33.3%], astrocytoma GH in 5 patients [16.7%] and pilocystic astroctoma 3 patients [10.0%]. The surgical navigation system is helpful in mrgical planning for precise craniotomy, localization and orientation of the lesion, extent of the surgery reduction of surgery time and decrease in the length of 1C U stay and hospital cost.

Breast Feeding

Impact of health education on knowledge of, attitude to and practice of breastfeeding among women attending primary health care centres in Almadinah Almunawwarah, Kingdom of Saudi Arabia: controlled pre-post study.

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Journal of Taibah University Medical Sciences 2014; 9 (3): 187-193

Keywords: Health Education; Health Knowledge, Attitudes, Practice; Primary Health Care

Abstract: To explore the knowledge of, attitude to and practice of breastfeeding among women attending primary health care centres before and after health education. A cohort of 360 gravid women attending primary health care centres in Almadinah Almunawwarah were selected randomly and allocated randomly to receive health education sessions or not. An antenatal questionnaire was filled in initially by both groups and filled in again after health education only by the intervention group. Postnatal questionnaires were filled in by both groups. Significant differences between the two groups and in the intervention group before and after health education sessions were tested. Multivariate analysis was used to detect predictors of change. Parameters of knowledge and attitude before the intervention did not differ between the two groups. Significant differences were found within the intervention group before and after health education and between the two groups in all parameters. Mode of delivery [odds ratio (OR), 2.5], educational level [OR, 1.6], age [OR, 5.6], parity [OR, 2.5], work status [OR, 3.3] and motivation from mothers, other relatives and health care workers [OR, 3.7, 2.1, 4.1, respectively] were significant predictors of change in knowledge of, attitude to and practice of breastfeeding. Health education improved knowledge, attitude and practice; however, the percentage of women who initiated early breastfeeding, gave colostrum, practised feeding on demand and intended to continue breastfeeding should still be improved. Health care workers play an important role in disseminating knowledge and motivating women to breastfeed.

Breast Neoplasms

pathology

Immunohistochemical cyclooxygenase-2 [COX-2] and cd31 expression in breast carcinoma with correlation to clinico-pathological parameters.

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Assiut Medical Journal 2013; 37 (1): 229-248

Keywords: Breast Neoplasms-immunology; Cyclooxygenase 2; Immunohistochemistry

Abstract: Breast cancer is the most common cancer in Egyptian women. COX-2 seems to be involved in malignant transformation and tumor progression by affecting cell proliferation, mitosis, cell adhesion, apoptosis, immune surveillance, and angiogenesis. Angiogenesis is an important key step in tumor progression. Microvascular density [MVD], a surrogate marker of angiogenesis can be assessed by CD31 staining. This study aims to: 1. Evaluate COX-2 and CD31 expressions in breast cancer. 2. Determine the correlation between COX-2 and CD31 with the clinico-pathological parameters in ductal breast carcinoma. This study included 74 specimens of breast lesions. Patient's age, tumor size and local aggressive changes, history of recurrence and/or presence of distant metastasis were obtained. Hematoxylin and Eosin [H&E] stained sections were evaluated for histopathological tumor type, tumor grade, presence or absence of normal hyperplastic, in situ component, lymphocytic infiltration, lymphovascular invasion, and axillary lymph node status. COX-2 and CD31 immunostaining was done to detect their expression using the avidin-biotin peroxidase method. COX-2 increased with increasing grade of ductal carcinoma in situ [DCIS] and invasive ductal carcinomas [IDC] [P < 0.05 and P < 0.002 respectively]. COX-2 expression increased progressively along the continuum of neoplastic changes from normal breast epithelium to IDC [P < 0.01]. There was significant correlation between COX-2 and tumor size [P < 0.05], tumor grade [P < 0.002], lymphovascular invasion [P < 0.03] and lymph node metastasis [P < 0.02]. CD31 staining was observed along the cell membrane of endothelial cells of microvessels in all breast specimens. The median CD31 MVD count was 10 for normal breast, increased insignificantly to 17 in hyperplastic lesions, and reached 19 for DCIS, and 66.5 in IDC [P < 0.000]. There was significant increase in MVD between different grades of IDC [P < 0.01] but not in DCIS. Positive correlation was present between COX-2 and CD31 in DCIS and in IDC [P < 0.000 for each]. COX-2 was increased with poor prognostic parameters; tumor size, tumor grade, lymphovascular invasion and lymph node metastasis. CD31 increases with increasing grade of IDC. These findings might imply for new therapeutic strategies in order to prevent progression of DCIS to IDC and to improve cancer therapy.

Caenorhabditis elegans

isolation and purification

Cloning, expression and partial characterization of the C. elegans EEED8.8 gene product, a specific ADP-ribose diphosphatase, member of nudix hydrolase family.

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EJB-Egyptian Journal of Biochemistry and Molecular Biology [The] 2013; 31 (1): 49-64

Keywords: Escherichia coli Proteins; Adenosine Diphosphate Ribose-biosynthesis; Pyrophosphatases; Cloning, Organism-methods; Cloning, Organism-utilization

Abstract: The C Elegans homologue of the human YSA1 protein, EEED and 8.8 [Nudix6], has been expressed as a thioredoxin fusion protein in Escherichia coli. It is an ADP-sugar pyrophosphatase with similar activities towards ADP-ribose and IDP-ribose. It is a specific ADP-ribose [adenosine 5-diphosphoribose] pyrophosphatase with no activities towards other nucleotides. The products of ADP-ribose hydrolysis were AMP and ribose 5-phosphate. Km and k[cat] values with ADP-ribose were 143.8 +/- 35.69 microm and 18.9 +/- 2.485 micromol/min per mg protein using ADP-ribose as substrate respectively. The optimal activity was at pH 7.2 with 10 mM Mg[2+], fluoride was inhibitory, with an IC[50] of 40 microM. A major proposed function of the MutT motif proteins is to eliminate toxic nucleotide metabolites from the cell.

Carcinoma, Hepatocellular

drug therapy

Effects of treatment with platinum azidothymidine and azidothymidine on telomerase activity and Bcl-2 concentration in hepatocellular carcinoma- induced rats.

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AJMB-Avicenna Journal of Medical Biotechnology 2014; 6 (4): 200-209

Keywords: Platinum-therapeutic use; Zidovudine-therapeutic use; Telomerase; Genes, bcl-2; Liver Neoplasms; Liver Neoplasms, Experimental; Rats, Wistar

Abstract: Telomerase activity increases in cancer cells. Bcl-2 is an antiapoptotic factor that its concentration grows in many cancer cells including hepatocellular carcinoma cells. In this study, an attempt was made to investigate the effects of a new synthetic compound, platinum azidothymidine [Pt-AZT] on treatment of rats with Hepatocellular Carcinoma [HCC] and to compare its effects with azidothymidine [AZT] in alteration of telomerase activity and Bcl-2 concentration in HCC. Healthy adult male Wistar rats [n=100] were randomly divided into 4 groups [A, B, C, and D]. Group A contained 25 healthy rats and was considered as the control group. Liver preneoplastic lesions were induced in remaining animals [n=75] using Solt-Farber resistant hepatocyte protocol. These animals were randomly allocated in groups B, C and D. Group B was negative control [untreated], groups C and D were treated by intraperitoneal injection [IP] of Pt-AZT [0.9 mg/kg/day] and AZT [0.3 mg/kg/day], respectively for 14 days. After the treatment period, telomerase activity and Bcl-2 concentration were determined in the rats' liver. No HCC was developed in group A, but tumors were present in all other groups. Telomerase activity and Bcl-2 concentration were significantly lower in group C compared to groups B [0.159 +/- 0.06 vs. 0.577 +/- 0.116 IU/L, p<0.001, respectively and 0.931 +/- 0.388 vs. 3.94 +/- 0.74 ng/ml, p<0.001, respectively]. Similar results were observed in comparison with group D [0.331 +/- 0.06 vs. 0.577 +/- 0.116 IU/L, p<0.001, respectively and 0.931 +/- 0.388 vs. 2.94 +/- 0.594 ng/ml, respectively]. There was a significant negative correlation between telomerase activity and Bcl-2 concentration only in untreated cancer group [p=0.034]. In this study, higher anticancer activity of Pt-AZT in comparison to AZT was demonstrated. It effectively inhibits the growth of liver tumor in rats through extending apoptosis.

Cardiomyopathies

diagnosis

[A case report of peripartum cardiomyopathy with cardiogenic shock]

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Qom University of Medical Sciences Journal 2014; 8 (4): 64-69

Keywords: Peripartum Period; Shock, Cardiogenic; Heart Failure; Ventricular Dysfunction, Left; Mitral Valve Insufficiency; Cesarean Section

Abstract: Peripartum cardiomyopathy is a relatively rare disease, which can cause devastating consequences; therefore it should be diagnosed correctly and treated promptly. The disease is still an important clinical problem, because only half of the patients or maybe a little more show recovery of left ventricular function, despite conventional treatment for heart failure. The etiology of this disease is still unknown and characterized by an acute development of left ventricular dysfunction and heart failure in the last month of pregnancy or within the first 5 months after delivery. The prognosis of this condition is very poor in some cases, so that it progresses to irreversible heart failure and heart transplantation or death. In the presented patient, fulminate onset and progression to cardiogenic shock and finally complete and rapid improvement was highly significant. In this article, we report a 25-year-old woman with severe manifestations of heart failure, severe left ventricular dysfunction, and severe mitral regurgitation after cesarean section, who showed complete improvement with conventional treatment of heart failure and mechanical support.

Cariostatic Agents

Cariostatic potential of the strontium fluorophosphate bioactive glass.

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Pakistan Oral and Dental Journal 2014; 34 (3): 574-579

Keywords: Fluorides; Phosphates; Strontium; Glass

Abstract: The aim of this study was to measure the release of fluoride and strontium ions from bioactive materials known as phosphate glasses in low pH conditions and hence assessing the cariostatic potential of these materials in the oral cavity preventing demineralization of enamel and probably enhancing the process of remineralization of enamel. For this study six bioactive Phosphate glasses of variable compositions containing Phosphate, Calcium, Sodium, Fluoride and Strontium ions were made for this study. Each powder mixture was melted in a platinum crucible at 1150°C and was quenched between stainless-steel plates to produce glasses. The glasses were milled into a powder. Demineralizing solution containing 0.1 M of acetic acid having a pH of 4.0 was prepared. 75 grams of each glass powder was immersed into 50 ml of the demineralization solution and kept in an incubator at 37°C shaking at a constant pace for different time points. After every time point, the solution was checked for precipitates and was filtered out. The filtered solution was sent for Inductively Coupled Plasma Optical Emission Spectroscopy for measurement of Strontium ion release, and Fluoride Ion Selective Electrode for the measurement of Fluoride release. 0.17 ppm of fluoride was released out of the maximum predicted release of 28 ppm which counts to 1.2% of the total release as measured by the fluoride electrode; along with 7.4 ppm of strontium out of the maximum predicted release of 32 ppm which counts to 23% of the total release as measured by ICP. Maximum release was from glasses incorporated with both strontium and fluoride in the same glass exhibiting synergism.

Carnitine

pharmacology

[Anxiolytic effect of L-carnitine in adult male rats]

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Qom University of Medical Sciences Journal 2014; 8 (4): 1-5

Keywords: Anti-Anxiety Agents; Anxiety; Rats

Abstract: The beneficial effect of L-carnitine for treatment of neurological diseases has been investigated in various studies. The aim of the present study was to investigate the effect of L-carnitine supplement on anxiety behavior in adult male rats by elevated plus maze. In this experimental study, the studied groups were divided into normal, saline, and experimental groups. L-carnitine was administered intraperitoneally at doses of 0.5, 1, 2, and 4

mg/kg were, and saline control group received saline as vehicle. The data were analyzed using one-way ANOVA and Dunnett's test. The significance level was considered as $p < 0.05$. In this study, the anxiolytic response of the drug was evaluated by elevated plus maze 30 minutes after treatment. L-carnitine treatment increase time spent in open arms, number of entries into open and dark arms or locomotor activity, %OAE, while decreased %OAT [$p < 0.01$]. The results of this study indicated that L-carnitine has anxiolytic effect on male rats.

Carotenoids

[Evaluation of the antibacterial activity of annatto dye on some pathogenic bacteria]

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Qom University of Medical Sciences Journal 2014; 8 (4): 53-57

Keywords: Plant Extracts; Bixaceae; Coloring Agents; Anti-Bacterial Agents; Food Coloring Agents; Microbial Sensitivity Tests; Bacteria

Abstract: Today, disadvantages of antibiotics and synthetic preservatives have been identified, and researchers are seeking natural and safe alternatives. Annatto dye is one of the commonly used dyes in the food industry, which has antimicrobial and antioxidant properties. The objective of this study was to determine the antimicrobial effect of annatto dye on some pathogenic bacteria. In this study, annatto dye was extracted from annatto seeds by maceration methods and after filtration, it was powdered by vacuum oven. Antimicrobial activity was evaluated by disc diffusion method and the minimum inhibitory concentration [MIC] and minimum bactericidal concentration [MBC] were determined using agar dilution method against *Staphylococcus aureus*, *Listeria innocua*, *Bacillus cereus* and *Salmonella enteritidis*. In this study, *Bacillus cereus* and *Salmonella enteritidis*, respectively, showed the highest and the lowest sensitivity to annatto dye. *S. enteritidis* had the highest MIC among the tested bacteria, and MBC was not observed only for *S. enteritidis* in the tested concentrations of annatto dye. According to the results of this study, annatto dye was effective on the growth of all tested bacteria. Also, annatto dye had more antimicrobial effect on the tested gram-positive bacteria compared to gram-negative bacteria. Thus, considering the results of the experiment, annatto dye can be used as an inhibitor of bacterial growth.

Cerebellar Cortex

anatomy and histology

Age- related structural changes in the cerebellar cortex of the albino rats and the possible protective role of melatonin.

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Assiut Medical Journal 2013; 37 (1): 85-106

Keywords: Rats; Age Factors; Microscopy, Electron, Scanning Transmission-methods; Melatonin-therapeutic uses; Treatment Outcome; Rats

Abstract: It was reported that the cerebellum undergoes extensive atrophic changes with advanced age. The free radicals derived species are considered to be highly responsible for the aging process. Recently, melatonin was found to be a potent free radical scavenger. The aim of the current work was to demonstrate the age- related alterations in the structure of the cerebellar cortex in rats and to study the possible beneficial role of long - term melatonin administration to ameliorate these changes. In this work, a total number of 40 male albino rats were used. They were equally divided into 4 groups. Group I [young adult rats], it included 3-month- old rats. Group II [middle - aged rats], it included 12- month - old rats. Group III [control old rats], it included 22- month- old rats. Group IV [melatonin- treated old rats], the animals of this group were treated with melatonin in a dose equal to 1mg/kg/day subcutaneously for 10 months. Their treatment began when they were 12 months old [middle -aged] and continued until they became 22 months old. At the end of the experiment the animals were sacrificed, and their cerebella were processed for light and transmission electron microscopic studies. In addition, the thickness of the molecular layer and the number of the purkinje cells and granule cells per area [1800 μm^2] in their corresponding layers were measured in all the studied groups and statistically analyzed. The organization of the cerebellar cortex in the middle- aged rat group appeared to be closely similar to that of the young adult rats. In the old control rat group, examination of the cerebellar cortex revealed the presence of degenerative changes affecting the purkinje and the granule cells. These changes were associated with extensive cell loss. Marked decrease in the extent and branching of the dendrites of the purkinje cells could also be observed. In addition, there was a significant reduction in the thickness of the molecular layer. The old rat group treated with melatonin showed that the majority of the purkinje and granule cells had normal appearance. Only few cells had darkly stained nuclei. Furthermore, melatonin administration to the old rats markedly reduced aging- induced cell loss in the cerebellar cortex. The purkinje cells appeared to have many dendritic branches but still their extent was not reaching to the pial surface. The presynaptic nerve fiber terminals making contact with the granule cells and their dendrites showed the presence of considerable amount of synaptic vesicles. This study suggested that melatonin might have a potential role for attenuation of the

age -related changes in the structure of the cerebellar cortex. It would be considered as a promising prophylactic or therapeutic agent for age -related neurological disorders.

Cesarean Section, Repeat

Peer review and audit of morbidity after three or more caesarean sections.

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Journal of Taibah University Medical Sciences 2014; 9 (3): 194-197

Keywords: Cesarean Section; Peer Review; Medical Audit; Morbidity; Retrospective Studies; Cohort Studies

Abstract: A retrospective cohort study was conducted of caesarean sections for women who had previously undergone two or more caesarean section performed by six obstetrician registrars in Sultan Qaboos University Hospital, a tertiary referral hospital in Oman. Retrospective data were collected from electronic health records of 120 Omani women between January 2010 and December 2011 [20 per registrar]. Haemorrhage of more than 1000 ml was recorded in 10% of patients, one patient was found to have a bladder injury intraoperatively, and postoperative wound infection occurred in 5% of patients. Difficulty in opening the abdomen was found in one patient, and one case of deep vein thrombosis occurred despite prophylactic heparinisation. One infant was preterm, and four had intrauterine growth restriction. Intraoperative complications, such as blood loss, visceral injury and long mean operating time and postoperative complications, such as deep vein thrombosis, wound infection and febrile morbidity, were comparable among the registrars. The standard of the registrars was comparable, and similar to international standards.

Chemotherapy-Induced Febrile Neutropenia

drug therapy

Comparison of antibiotics; granulocyte colony-stimulating factor in children with chemotherapy-induced febrile neutropenia.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 667-671

Keywords: Granulocyte Colony-Stimulating Factor; Anti-Bacterial Agents; Child; Neutrophils

Abstract: To determine if granulocyte colony-stimulating factor [G-CSF] with empirical antibiotics therapy accelerates febrile neutropenia resolution compared with antibiotics without it. Experimental study. Study was conducted for a period of one year from March 2012 to February 2013 in oncology/haematology department Children Hospital Lahore [PAKISTAN]. A total of 56 children with febrile neutropenia due to chemotherapy were included in the study. Two groups were made A and B. Twenty eight patients were included in each group. Patients included in the group A were given granulocyte colony stimulating factor with the dose of 5 microg/kg/day for five days and the patients included in group B were not given granulocyte colony stimulating factor. Subcutaneous administration was recommended. Patients remained on study until absolute neutrophil count [ANC] >500/microl and > or =48 hr without fever. Every child in both groups was given antibiotic treatment in the hospital whenever there is need, antibiotics changed according to the blood culture sensitivity. Admitted patients were followed daily for fever and signs of sepsis. Number of days of admission in hospital and number of days of treatment was calculated in both groups and compared with each other. Duration of febrile neutropenia and mortality was also analysed for both groups. Out of 56 patients 46 had acute lymphoblastic leukemia [ALL], 06 patients were of wilm tumour and 04 patient were having rhabdomyosarcoma. Twenty eight patients were given only antibiotics [GROUP B] and 28 patients were given G-CSF plus antibiotics [GROUP A]. Addition of G-CSF significantly reduced neutropenia and febrile neutropenia recovery times. Median days to febrile neutropenia resolution was 4.3 days earlier with G-CSF [5.3 vs. 9.6 days] [P < 0.0001]. Resolution of fever was one day earlier in patients who were given G-CSF [GROUP A]. Hospitalization was 2.1 days shorter with G-CSF [6.1 vs. 8.2 days] [P = 0.02]. [Table II]. There was difference of 2.2 days in the duration of IV and oral antibiotic treatment. Addition of antifungal therapy was done in 4 patients in group B and only in one patient in group A. All the patients recovered and no death occurred in the study. It is concluded that addition of G-CSF to empiric antibiotic therapy accelerates chemotherapy-induced febrile neutropenia resolution by 4.3 days in pediatric patients with malignancy. It is a significant difference in duration of hospitalization. By bearing expenses of G-CSF we can decrease the expenses of hospitalization and antibiotics.

Choanal Atresia

diagnosis

Choanal atresia; diagnosis and simple endoscopic repair at remote primary care centers.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 816-819

Keywords: Choanal Atresia-surgery; Endoscopy; Tomography, X-Ray Computed

Abstract: Choanal atresia [CA] is a rare, congenital malformation resulting as a failure in communication between the posterior nasal cavity and the nasopharynx. The clinical course is often asymptomatic in unilateral CA leading to higher rates of misdiagnosis, in comparison to bilateral CA, which manifests itself as a surgical emergency at birth. Most cases present as isolated malformations, but it may also be associated with other congenital anomalies in 20-50% of cases. Currently, the most important diagnostic tool for CA is computerized tomography [CT] and confirmatory diagnosis is usually achieved with the help of nasoendoscopic examination. Although, different surgical approaches have been used in the past, transnasal endoscopic repair is currently preferred over others. Herein, we describe our experience of three cases and share our simple stentless endoscopic technique, to facilitate physicians working in low facility units for a timely diagnosis and prompt treatment.

Cholecystectomy, Laparoscopic

Laparoscopic cholecystectomy; the effect of intraperitoneal instillation of bupivacaine on the mean post-operative pain scores.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 593-600

Keywords: Injections, Intraperitoneal; Bupivacaine; Pain, Postoperative

Abstract: Laparoscopic cholecystectomy is the treatment of choice for symptomatic cholelithiasis. Intraperitoneal instillation of bupivacaine is one of the methods used to improve pain relief after laparoscopic cholecystectomy. To compare the mean pain score after intraperitoneal instillation of bupivacaine with placebo during laparoscopic cholecystectomy. Randomized Control trial. This study was carried out a surgical unit PGMI Lady Reading Hospital and Hayatabad Medical Complex, Peshawar. The duration of study was 6 months from 15th May to 15th December, 2013. 92 patients in each group were included in study to compare the mean pain score of intraperitoneal instillation of bupivacaine [Group A; study group] with 0.9% normal saline solution [Group B; placebo group] using visual analogue scale after laparoscopic cholecystectomy at 12th hour after surgery. Data was entered in software SPSS version 16.0. T test was used to compare the mean pain scores. The mean age of patients in Group A and B was 41.82 +/- 7.34 and 40.95 +/- 9.24 respectively [p=0.483]. Group A has low mean pain score [3.619 +/- 0.676] according to Visual Analogue Scale then Group B [3.837 +/- 0.667] with a statistically significant p value [p=0.036]. A t test failed to reveal a statistically reliable difference between gender [p=0.513] and age [p=0.767] wise distribution of mean pain between group A and B. Mean pain score of intraperitoneal instillation of bupivacaine is significantly less than 0.9% normal saline solution at 12th hour after laparoscopic cholecystectomy.

Laparoscopic cholecystectomy; to assess various intra operative predictive factors which are responsible for difficulty in performing laparoscopic cholecystectomy.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 601-605

Keywords: Tissue Adhesions; Intraoperative Care; Prospective Studies

Abstract: To assess various intra operative predictive factors which are responsible for difficulty in performing laparoscopic cholecystectomy. Prospective observational study. This study was out in Surgical department, Liaquat University Hospital Jamshoro, Dow International Hospital Karachi and Jinnah Postgraduate Medical Center Karachi, from October 2012 to October 2013. This study consisted of hundred patients. Detailed History was taken from all the patients with special regard to the abdominal pain or pain in right hypochondrium, lump in right hypochondrium, vomiting, dyspepsia and fever. Detailed Clinical examination of the patient was done. Site of right hypochondrium was especially examined for assessment of Murphy's sign, palpable mass, visceromegaly and recorded in proforma. Systemic review was also done to see any comorbidity. Ultrasound of abdomen as diagnostic modality and for assessment of gallstone disease. Inclusion criteria were all diagnosed patients of complicated and uncomplicated gall stone disease of any age and either any sex admitted on the basis of history, clinical examination and investigations specially ultrasound of abdomen. Exclusion criteria included unfit patients for general anesthesia, Pregnant ladies due to risk of foetal loss, patient with carcinoma of gall bladder, patient with acute pancreatitis and Patient with obstructive jaundice. Follow up of all these patients was done. Results were prepared with help of tables and graphs. Data was analyzed through SPSS software. Out of 100 patients included in this study 79 were female [79%] and 21 male [21%]; with female to male ratio of 3.76:1. There was wide variation of age ranging from a

minimum of 20 years to 65 years. The mean age was 46.28±7.20 years. Symptoms of patients presented with pain in RHC 87%, pain in RHC along with pain in epigastrium 78%, Nausea and Vomiting 15%, dyspepsia 50% and fever in 10% of cases. Ultrasound examination revealed single stone in 20[20%] patients where as multiple stones in 80 [80%] patients. Operative findings revealed severe adhesions in calot's triangle in 15[15%] patients where as Severe and tight adhesions around gallbladder in 16[16%] patients, Obscured anatomy in calot's triangle in 11[11%] patients and Intrahepatic gallbladder in 9[9%] patients. Complications were Pain in 33[33%] patients, Bleeding in 1[1%] patients, Intraoperative collection in 2[2%] patients, Wound Sepsis in 5[5%] patients and Biliary leakage in one case. In conclusion our study revealed that are numerous conditions which make the difficult laparoscopic cholecystectomy like severe adhesions in calot's triangle 15%, Severe and tight adhesions around gallbladder 16%, Obscured anatomy in calot's triangle 11%, Intrahepatic gallbladder 9% and adhesions around gallbladder 26%.

Chronic Periodontitis

genetics

Genetic factors in pathogenesis of chronic periodontitis.

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Journal of Taibah University Medical Sciences 2014; 9 (3): 245-247

Keywords: Chronic Periodontitis-etiology; Matrix Metalloproteinases; Interleukins; beta-Defensins; Receptors, Calcitriol

Abstract: Chronic periodontitis is a global health problem that affects the majority of adult population worldwide. The inflammatory destruction of tooth supporting structure is multifactorial in nature. It results from interaction between microbial, environmental, immunologic, and genetic factors. The exact mechanism of action by which genetic factors alter the course of chronic periodontitis and aid in pathogenesis is yet not well understood. Studies suggest association genetic polymorphism and susceptibility to chronic periodontitis. It is recommended that further investigation of a larger sample size with consideration of interaction with other factors that contribute to the pathogenesis of chronic periodontitis.

Cilastatin

First-order derivative ultraviolet spectrophotometry of imipenem-cilastatin formulations.

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Journal of Taibah University Medical Sciences 2014; 9 (3): 178-181

Keywords: Imipenem; Drug Combinations; Spectrophotometry, Ultraviolet; Chemistry, Pharmaceutical

Abstract: Imipenem-cilastatin is a well-established broad-spectrum intravenous antibiotic used for the treatment of life-threatening infections worldwide. The preparation has been studied by various methods but not by ultraviolet [UV] spectroscopy, although this technique remains one of the simplest, most accurate and precise validated quality control laboratory methods. The aim of this study was to validate a method for separating the intercalating peaks of the UV spectra of imipenem and cilastatin and to compare the purity and quantities of these two active ingredients in different marketed brands. No previous studies have been conducted to compare the generic product [Cilanem] with the original [Tienam]. First-order derivative UV spectrophotometry was used to separate the intercalating peaks of imipenem and cilastatin by measuring absorbance at 243 nm and 300 nm, respectively. Cilanem had better physical characteristics and a higher cilastatin concentration, while the brand product Tienam contained a higher concentration of imipenem. The generic product Cilanem is at least non-inferior to the brand product Tienam.

Cinnamomum zeylanicum

Effects of cinnamon extract in diabetic rat models in comparison with oral hypoglycemic drugs.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 717-722

Keywords: Plant Extracts; Diabetes Mellitus; Rats; Hypoglycemic Agents; Alloxan; Diabetes Mellitus, Experimental; Models, Animal; Acarbose; Tolbutamide

Abstract: To evaluate the anti diabetic effect of cinnamon extract in alloxan induced diabetic animal model [albino rats] in comparison with oral hypoglycemic drugs. An Experimental study. Place of Study: Al Tibri Medical College, Isra University, Karachi Campus. December 2012 to December 2013. Total 60 Albino rats of both genders were

divided into 6 groups consisting of 10 rats in each group. Each group of animals was further divided into two sub groups containing 5 rats in each group. The results obtained from the data indicated that there is significant reduction in blood glucose level rats treated with low dose of cinnamon extract. The animals of low dose cinnamon extract [200mg/kg. bw] when compared with other groups; there is a reduction in the blood glucose level in alloxan induced diabetic rats. Also tolbutamide and acarbose treated groups showed better antidiabetic effects as compared with cinnamon extract treated groups [p value<0.007 and p value<0.012 respectively], but cinnamon extract treated group showed synergetic effects when it was given in combination with tolbutamide or acarbose having significant p value<0.001 and p value<0.011 respectively. Tolbutamide and Acarbose showed better anti diabetic effect in comparison with cinnamon extract treated groups when used individually. This effect was enhanced when cinnamon was used in combination with either tolbutamide or acarbose.

Cognitive Therapy

[The effectiveness of family-based cognitive behavioral therapy in weight reduction among children with obesity]

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IJEM-Iranian Journal of Endocrinology and Metabolism 2014; 16 (4): 254-261

Keywords: Weight Loss; Obesity; Child; Family; Body Mass Index

Abstract: The fast increasing prevalence of childhood obesity makes it necessary to prioritize effective treatment strategies to deal with this problem. The purpose of this study was to investigate the effectiveness of family-based cognitive behavioral therapy in weight reduction among children with obesity. A randomized controlled trial with pre-test, post-test, and follow-up assessments was conducted. Thirty children with obesity and Body mass index [BMI] \geq 95th percentile for age and gender, were selected by convenience sampling from patients attending the Amirkabir Hospital and Morsali Clinic in Arak, and were randomly assigned to the experimental group [n=15] under administration of family-based cognitive behavioral therapy for a duration of six group sessions per week] and a control group [n=15]. Patients were weighed at the beginning of each session and Body mass index [BMI] was measured for all participants in three phases of pre-test, post-test and follow-up. The results of analysis of variance with repeated measures indicated that this intervention was effective in reducing body mass index. According to the results, family-based cognitive behavioral therapy is an effective method for treating of childhood obesity, and may be applicable in future research and possible clinical applications in this field.

Colorectal Neoplasms

Profile of patients with colorectal cancer.

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JSP-Journal of Surgery Pakistan International 2013; 18 (3): 107-113

Keywords: Disease Management; Cross-Sectional Studies; Prospective Studies; Rectal Neoplasms

Abstract: To document the profile of patients with colorectal cancer, modes of management and outcome. Cross sectional prospective study. This study was conducted at DUHS and CHK Pakistan from July 2007 to June 2012. Diagnosis was confirmed on histopathology through procto-sigmoidoscopy and colonoscopic biopsy. Abdominal ultrasounds and CT scan were used to stage the disease. Treatment was planned according to the presentation. Surgical procedure was decided according to the site and stage of the tumor. Neoadjuvant chemo-radiation was given for advance and adjuvant therapy for early tumors. A total of 72 patients were included in the study. Majority of patients [n=29 - 40%] presented with advance disease [stage IV]. Carcinoma rectum was diagnosed in 40 [55.5%] cases, sigmoid colon carcinoma in 12 [16.6%], caecal cancer in 10 [13.8%], ascending colon [n=6 - 8.3%], transverse colon and anal canal [n=2-2.7%] each. Anterior resection [APR] was performed in 20 [27.7%] cases, low anterior resection in two [2.7%], abdomino perineal resection in eight [11%], laparoscopic assisted APR in two [2.7%], Hartmann procedure and only stoma formation in ten [13.8%] each. Histopathology confirmed poorly differentiated adenocarcinoma in 36 [50%] patients. Overall mortality was 9.7% [n=7]. Majority of the patients diagnosed with carcinoma rectum were young and presented with advance disease.

Protective effect of MUC2 siRNA against colon cancer growth through the induction of apoptosis.

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EJB-Egyptian Journal of Biochemistry and Molecular Biology [The] 2013; 31 (1): 85-100

Keywords: Protective Agents; Apoptosis-genetics; Mucin-2; Colonic Neoplasms-genetics; RNA, Small Interfering-diagnosticuse

Abstract: Mucinous colorectal cancers are highly aggressive phenotype presenting with more advanced disease

and a poor prognosis. The biological mechanisms involved are unclear, but appear to be linked to mucin glycoprotein overexpression like MUC2. While the role of MUC2 in colon cancer metastasis is established, the biological events and molecular pathways modulated by MUC2 are still unknown. In this study, mucin expressing human colon cancer cells LS174T were grown 'in vitro' and MUC2 expression was inhibited by MUC2 small interfering RNA molecules [siRNA]. Cell culture and soft agar growth were measured to determine the overall effect on viability. Apoptosis was investigated by measuring protein level of polyADP-ribose polymerase [PARP], caspases-3 and -8. Finally, in vivo LS174T xenografts where grown in nude mice, different treatments included MUC siRNA, scramble siRNA or saline where administered, via tail vein injection, twice a week for two weeks. Results showed that upon treatment with MUC2-siRNA there was a 5-fold reduction cell culture growth and 9-fold reduction in soft agar growth in LS174T cells. A 3 to 5-fold increase in apoptosis was mediated by caspase-8 activation. Systemic administration of MUC2 siRNA markedly inhibited tumor growth in colon cancer xenografts grown in nude mice. Tumor growth inhibition was 59% by comparing MUC2 siRNA treatment and control siRNA treatments. There was no significance difference in tumor growth between control siRNA and normal saline treatment groups [p>0.05]. We conclude that MUC2 expression appears to protect LS174T colon cancer cells from apoptosis through extrinsic apoptosis pathway. We hypothesize that contrary to previous notions that MUC2 is a secreted glycoprotein involved in digestion and gastrointestinal tract lubrication, it appears to be involved in maintenance of LS174T cell viability. MUC2 may represent a therapeutic target in mucinous colorectal carcinomas.

drug therapy

FOLFIRI combined with bevacizumab as first-line treatment for metastatic colorectal cancer patients with hyperbilirubinemia after UGT1A1 genotyping.

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Medical Principles and Practice 2014; 23 (5): 478-481

Keywords: Neoplasm Metastasis; Antineoplastic Combined Chemotherapy Protocols; Camptothecin-analogs and derivatives; Leucovorin; Fluorouracil; Antibodies, Monoclonal, Humanized; Hyperbilirubinemia; Glucuronosyltransferase; Genotyping Techniques

Abstract: To report a metastatic colorectal cancer patient with hyperbilirubinemia treated with a combination of bevacizumab and FOLFIRI [5-fluorouracil, leucovorin, and irinotecan] using uridine diphosphate glucuronosyl transferase [UGT1A1] genotyping. Clinical Presentation and Intervention: A 46-year-old male was diagnosed with rectosigmoid colon cancer with liver metastases and hyperbilirubinemia presenting with severe jaundice. UGT1A1 genotyping was used before therapy to ascertain whether genotype-adjusted dosages of irinotecan plus bevacizumab could alleviate the toxicity. Then, the patient was treated with FOLFIRI. The FOLFIRI regimen was successfully used in this patient without concerns regarding toxicity.

pathology

Colorectal cancer in Saudi population; are there any issues related to gender?

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Gastroenterology and Hepatology

Professional Medical Journal-Quarterly [The] 2014; 21 (4): 587-592

Keywords: Colonic Polyps; Sex Factors; Retrospective Studies

Abstract: The aim of study was to investigate differences in clinicopathological [CPC] features of colorectal cancer [CRC] patients between both genders. We did a retrospective chart review of CRC patients confirmed by histopathology. 414 patients were included in study from King Abdul Aziz medical city Jeddah. Charts of patients were reviewed; data was analyzed on SPSS version 20. Majority of patients were males [58.7%] who were slightly older than females [mean age 57.7 versus 54.6 years] [p value 0.033]. The most common age group was fifty to eighty years in both genders [64% patients]. Abdominal pain was reported more in females [57% vs. 41.5% p value 0.002] while there was no difference in reporting bleeding per rectum between both genders [50.2% vs. 49.3% p value 0.953]. History of diabetes mellitus [DM], smoking and colonic polyps] was more common in males [67 versus 34 patients], [21 versus 3 patients] and [10 versus 1 patient respectively]. Patients presenting with acute surgical abdominal complications were less than 20%. Only 33 [19.2%] of females received preoperative chemotherapy vs. 80 [33%] of males [p value 0.001]. There was no significant gender differences regarding site, histopathology grade and surgical treatment received. There are important gender differences in CPC features of CRC patients in our population. Female patients tend to be slightly younger than males and there is less association with smoking, DM and previous colonic polyps. Abdominal pain was the most common presenting symptom among females. Both genders presented at similar stage of disease. These observations should be taken in consideration in making colorectal screening guidelines and public awareness programs.

Colorectal Surgery

Laparoscopic colorectal surgery; district general hospital experience.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 583-586

Keywords: Laparoscopy; Retrospective Studies; Colectomy; Hospitals, General

Abstract: The aim of this study was to assess the outcome of laparoscopic colorectal procedures performed in a district general hospital within 5 years period and to compare it with patients who had an open procedure during the same period. Data were collected retrospectively from patient's case notes retrieved from hospital medical records. One hundred consecutive cases of laparoscopic colonic resection including both benign and malignant diseases between 2005 and 2010 were analysed for perioperative and long term outcome and were compared with consecutive one hundred cases of open colectomies. Overall conversion rate was 6% for laparoscopic group. The mean major complication rates in laparoscopic group were 5% [3% in open group] and minor complications occurred in 18% [28% in open group]. There was no mortality in either group. The overall morbidity rate was 23% in laparoscopic group as compared to 31% in open colectomy group. In 64 cases, curative laparoscopic resections were performed for colorectal malignancy while 72 patients had resections for cancer in open group. The mean lymph node harvest in laparoscopic group was 13.2 nodes as compared to 12.4 in open group; no port-site recurrence was documented at a mean follow-up of 26 months. Average duration of surgery was 180 minutes as compared to 140 minutes in open group. Mean postoperative hospital stay was reduced from 13 days to 7 days. [Open Vs. Lap]. There was no statistically significant difference in major complication rates and mortality. Laparoscopic colorectal surgery is safe and feasible in elective colorectal cases and reduces the hospital stay without any added morbidity.

Communication

Communication between dental office and dental laboratory: from paper-based to web-based.

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Pakistan Oral and Dental Journal 2014; 34 (3): 555-559

Keywords: Dental Offices; Laboratories, Dental; Internet; Paper

Abstract: Proper communication between dental office and dental laboratory leads to well-designed prosthesis, satisfied clinician, and comfortable professional relationship between clinician and dental technician. The communication occurs usually through a laboratory work authorization Form containing handwritten instructions from the clinician to the dental technician, that specify the materials to be used and the type of the prosthesis. This paper-based recording has several major drawbacks such as mis-communication between the laboratory and the clinic and lack of visual interactivity. This article discusses the current web-based application for dental office-laboratory communication, and explains system design and requirement for Web Content Management System [WCMS] that can be used for communication between dental clinic and dental laboratory. Recent improvement in internet connection, uploading and downloading data facilitates transferring data between dental office and dental laboratory. Market is now crowded with desktop applications that help to manage laboratory cases and improve online communication between dental clinic and dental laboratory. Dental office-laboratory management systems are available as a commercial WCMS and open-source WCMS. Commercial system is commonly used because it is designed and modified according to user's requirements. In addition, it is a user-friendly interface and more secure when handling payments.

Composite Resins

Clinical evaluation of resin-based composites in posterior restorations: a 3-year study.

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Medical Principles and Practice 2014; 23 (5): 453-459

Keywords: Dental Restoration, Permanent

Abstract: The aim of this study was to evaluate the clinical performance of a nanohybrid and a microhybrid composite in class I and II restorations after 3 years. A total of 82 class I and class II restorations were performed in 31 patients [10 males and 21 females] using Grandio and QuiXfil with self-etch adhesives [Futurabond and Xeno III]. The restorations were clinically evaluated by 2 operators 1 week after placement [baseline] and at 6 months and 1, 2, and 3 years using modified United States Public Health Service [USPHS] criteria. At the 3-year follow-up, 62 class I and class II cavities were reevaluated in 23 patients [7 males and 16 females]. Statistical analysis was performed using Pearson's X² and Fisher's exact tests [p < 0.05]. At the 6-month follow-up, all restorations

received Alfa scores with respect to each evaluation criterion. At the 1-year follow-up, 2 QuiXfil restorations had to be replaced and Grandio restorations started to deteriorate in terms of marginal adaptation. At the end of 2 years, 9 Grandio restorations showed significant deterioration of the surface properties, demonstrating Bravo scores. At the end of 3 years, no significant differences were observed regarding color match, marginal adaptation, secondary caries, marginal discoloration, and anatomic form loss between the evaluated materials in 25 class I and 37 class II restorations. At the 3-year follow-up, Grandio restorations had 21% Bravo scores and showed significant deterioration of the surface properties, which were still clinically acceptable according to USPHS criteria. Three QuiXfil and 1 Grandio restorations were replaced because of secondary caries and loss of retention. Both the nanohybrid [Grandio] and the microhybrid [QuiXfil] composites were clinically functional after 3 years.

Frequency of postoperative sensitivity in posterior class I composite restorations.

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Pakistan Oral and Dental Journal 2014; 34 (3): 532-535

Keywords: Dental Restoration, Permanent; Postoperative Period; Esthetics, Dental

Abstract: The growing demand for esthetic restorations has driven the dentists to provide composite resin restorations even in the posterior class I situations. In these load bearing locations of the teeth, composite resins are subjected to a very thorough biodynamic testing which revealed some of their shortcomings. Persistent postoperative sensitivity has been recognized to be a reason for failure of these restorations. The objective of this study was to determine the frequency of postoperative sensitivity in posterior class I composite restorations placed in cavities less than or equal to a 3 mm depth. A total of 292 cavities were restored without any protective liners or base by one of the authors in an academic environment which were followed up at 48 hours for an objective cold test. The frequency of postoperative sensitivity was around 13% and no statistically significant relationship was found between patient age and tooth type [p value > 0.000]. While the cavity depths were limited the buccolingual widths remained unchecked and in some cases resulted in considerable occlusal table correction. This may be the reason for a greater postoperative sensitivity in the present study.

Sorption rate evaluation of flowable composite materials by using different photo-activation methods: a spectroscopic analysis.

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Pakistan Oral and Dental Journal 2014; 34 (3): 566-570

Keywords: Ultraviolet Rays; Methylene Blue; Spectrum Analysis; Spectrophotometry

Abstract: To determine the sorption rate of flowable dental composites by using different photo-activation techniques. Ninety specimens of 3 different dental composites were used for study. 7mm in diameter and 2mm thick disc of each material were prepared in the laboratory by using brass moulds. 30 samples were polymerized each by Quartz Tungsten Halogen [QTH], Light Emitting Diode [LED] and Ultraviolet B [UVB] light curing units. Samples were taken out from mould and placed in clean glass tube, immersed in 2% methylene blue solution and placed in incubator for 24hrs. Absorbance was detected at 590nm by using Visible Spectrophotometer. The significant results were observed by using both Light Emitting Diode and Quartz Tungsten Halogen light units [*P< 0.01]. Ultraviolet B narrowband light found to be inappropriate for polymerization purpose. Similarly, composite Clinpro and Bioseal showed significant results in every photo-activation method [*P<0.01]. Light Emitting Diode units were as efficient in curing resin composite as Conventional Halogen lamps are. Ultraviolet B narrowband light was not appropriate in activation of dental composite while Clinpro and Bioseal are efficient flowable composites.

Coumaric Acids

Protective effect of ferulic acid on ionizing radiation induced damage in bovine serum albumin.

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International Journal of Radiation Research 2014; 12 (2): 113-121

Keywords: Radiation, Ionizing; Serum Albumin, Bovine-radiation effects; Protective Agents; Radiation-Protective Agents; Protein Carbonylation

Abstract: Ionizing radiation causes deleterious effects on living system mainly due to oxidative damages of macromolecules and protein is the major target due to its abundance. The aim of this study was to investigate the effects of ionizing radiation induced changes in the molecular properties of bovine serum albumin [BSA]; its secondary and tertiary structures, degradation, cross linking and radioprotective role of ferulic acid, a natural antioxidant on these radiation induced changes. This study was carried out to investigate the gamma radiation induced oxidative, structural damage of BSA and radioprotective efficacy of ferulic acid through SDS-PAGE, DTNB assay, DNPH assay, FOX assay methods. Hydroxyl radical scavenging capacity of ferulic acid was estimated using 2-deoxy ribose assay. Further, radiation induced changes in the anisotropy and excitation state lifetimes of BSA were examined. SDS -PAGE data suggested that the loss of protein was linearly dependent on the radiation dose.

Gamma-irradiation of BSA caused the formation of protein carbonyls, hydroperoxides and loss of thiols. Ferulic acid protected the radiation induced loss of protein as well as reduced various oxidative damages. Ferulic acid protected the protein from radiation induced damages in a concentration dependent manner. The results provide insight into radiation induced molecular changes in the protein. Ferulic acid protected the BSA from oxidative modification caused by radiation suggesting that ferulic acid possesses strong antiradical properties. Ferulic acid is known to protect DNA, the prime target of radiation and further its ability to protect protein suggesting its ability to protect different biomolecules and therefore can be a good candidate for development radioprotector.

Curcumin

Protective effect of curcumin and ginkgo biloba l. extract against gentamicin-induced nephrotoxicity in rats.

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Assiut Medical Journal 2013; 37 (1): 1-12

Keywords: Gentamicins-toxicity; Kidney-ultrastructure; Microscopy, Electron; Ginkgo biloba; Plant Extracts-Therapeutic uses; Protective Agents; Antioxidants; Rats

Abstract: Gentamicin [GENT] which is a commonly used antibiotic causes nephrotoxicity in man and animals. Generation of free radicals in the renal cortex plays an important role in the pathogenesis of gentamicin-induced nephrotoxicity in rats. Curcumin, the yellow curry pigment isolated from turmeric [the ground rhizome of *Curcuma longa* L] and Ginkgo biloba extract have been reported to possess antioxidant and free radical scavenging properties. The present study was designed to investigate the potential protective role of curcumin, Ginkgo biloba extract, and their combination on gentamicin-induced nephrotoxicity in rats. The rats were divided into six groups, 8 animals each. Group 1 rats were treated with GENT [80 mg/kg/day] IM for 6 days. Rats of groups 2, 3, and 4 were pretreated orally for 4 days with curcumin [200 mg/kg/day], Ginkgo biloba leaf extract [300 mg/kg/day], and a combination of curcumin and Ginkgo biloba leaf extract, respectively before concomitant administration of GENT for additional 6 days. Control groups of animals were treated with pure vehicles IM or orally. Nephrotoxicity was evaluated biochemically and histopathologically. Treatment of rats with GENT produced elevation in serum creatinine, urea levels and severe tubular necrosis. Concomitantly, treatment of rats with GENT produced elevation in serum nitrite level, decrease in renal intracellular reduced glutathione [GSH] level and superoxide dismutase [SOD] activity. Pretreatment of rats with curcumin, Ginkgo biloba extract, or their combination decreased GENT-induced disturbances in kidney function and structure. In addition, pretreatment of rats with curcumin, Ginkgo biloba extract, or their combination decreased GENT-induced alterations in serum nitrite level, renal intracellular GSH level and SOD activity. The combined treatment was more effective than either agent alone. These results indicate that curcumin, Ginkgo biloba extract, or their combination has the ability to protect against GENT-induced nephrotoxicity. Inhibition of oxidative stress and nitric oxide production may play an important role in these protective effects.

Cystic Fibrosis

Update on key emerging challenges in cystic fibrosis.

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Medical Principles and Practice 2014; 23 (5): 393-402

Keywords: Methicillin-Resistant *Staphylococcus aureus*; Cystic Fibrosis Transmembrane Conductance Regulator

Abstract: Cystic fibrosis [CF] is a multisystem disease causing severe chronic sinopulmonary disease and loss of pancreatic exocrine function, which affects approximately 70,000 individuals worldwide. New therapeutic developments over the last few decades have resulted in a significant increase in survival, with the median predicted survival now reaching the late thirties and more and more CF patients living well into adulthood. However, with this advent of new therapies and the associated increase in survival, new challenges in CF care have also emerged. Two of these challenges, i.e. chronic methicillin-resistant *Staphylococcus aureus* lung infection and patient adherence to very complicated and time-consuming therapeutic regimens, are reviewed in detail here. In addition, the ultimate challenge of treating the underlying cause of CF by correcting the dysfunction of the CF transmembrane conductance regulator chloride channel is reviewed, as agents to correct channel function will likely significantly alter CF clinical outcomes and treatment approaches in the next decade.

Dandy-Walker Syndrome

epidemiology

Dandy-Walker syndrome.

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Journal of Taibah University Medical Sciences 2014; 9 (3): 209-212

Keywords: Retrospective Studies; Hydrocephalus

Abstract: Dandy-Walker syndrome is a rare disorder characterised by complete or partial agenesis of the vermis, cystic dilatation of the fourth ventricle and an enlarged posterior fossa. The precise aetiology is unknown, although there have been reports of associations with risk factors like maternal virus infections [rubella, toxoplasma, and cytomegalovirus] and alcohol consumption. The reported incidence varies between one per 2500 births to one per 100,000 births. This huge difference may be due to the limited published case series, as most of the available data are sporadic case reports or series. A retrospective review was conducted of medical records of neonates with Dandy-Walker syndrome admitted to the neonatal intensive care unit of a university hospital between January 2001 and December 2010. Eight infants with Dandy-Walker syndrome were admitted during the study period, giving an overall incidence of 1/400 live births. The female-to-male ratio was 1.7:1 [one infant had ambiguous gender but was later found to be male]. The mean gestational age was 39.0 weeks [range, 36-40 weeks], and the mean birth weight was 2716 g [range, 1965-3335 g]. The syndrome was diagnosed in half the infants prenatally. All infants had associated hydrocephalus, and five had other neurological anomalies; extra-cranial anomalies were seen in 50% of infants. All infants survived to discharge. Although many of our results were consistent with published data, the incidence of Dandy-Walker syndrome in our study was much higher than any reported previously. Further research is required to elucidate this unexpected finding.

Dengue

Comparison of knowledge and practices regarding dengue infection in medical students a pre and post intervention study in the city of Lahore.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 697-700

Keywords: Health Knowledge, Attitudes, Practice; Students, Medical; Cross-Sectional Studies; Questionnaires

Abstract: To assess pre and post intervention preventive knowledge and practices about Dengue infection. 1]. To compare knowledge about Dengue infection between 2nd and 5th year medical students. 2]. To compare preventive practices about dengue infection, between 2nd year and 5th year medical students. Data Source: 2nd year and 5th year medical students. Cross-sectional with descriptive analysis. Study was conducted in one medical school in the city of Lahore. Data collection was completed in one month. Out of total number of undergraduate medical schools in the city of Lahore where each one is considered as a cluster one was selected by simple random sampling. Within the selected cluster [medical school] the students were [study units] were selected by simple random sampling. Data was collected through self-administered questionnaires. 200 medical students from the selected medical school. Hundred students each from 2nd and 5th year ongoing classes were selected through simple random sampling. 35.5% [71/200] of medical students interviewed in both the classes had an idea about the causative agent of Dengue infection of which 59.2% [42/71] were 5th year and 40.8% [29/71] were 2nd year medical students. Sufficient knowledge about symptoms of Dengue infection was found in 50.0% [100/200] of all participants out of which 59.0% [59/100] were in final and 41% [41/100] were in 2nd year of medical school. 51% [102/200] students were aware about different serotypes of Dengue infection out of which 63.7% [65/102] were 5th year and 36.3% [37/102] were 2nd year medical students [p< 0.0001: 95% CL: 1.7-5.6]. About 42.5% [85/200] students interviewed were knowledgeable of different preventive measures to combat Dengue infection in community of which 49.4% [42/85] were 5th year and 50.6% [43/85] were 2nd year medical students [p= 0.88, 95% CL: .54-1.6]. Similarly out of 5th year students who were aware of preventive measures against Dengue infection 50% [21/42] were undertaking preventive practices as compared to 51% [22/43] of 2nd year medical students [p= 0.91, CL: .40-2.2]. There was no statistically significant difference in preventive knowledge and practices against Dengue infection between 5th and 2nd year medical students. Thus Community Medicine curriculum related to vector-borne diseases delivered in year 4 of medical school was not successful in producing post intervention knowledge and behavior change in 5th year medical students.

Dental Caries

epidemiology

Prevalence of dental caries; patients attending out patient department of Isra dental college hospital.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 750-754

Keywords: Prevalence; Cross-Sectional Studies

Abstract: Prevalence of dental caries among patients attended Isra Dental College OPD. Setting/ A total of 1037 patients with dental carries were recruited from the outpatient clinic of the Department of Dentistry Isra University Hospital, Hyderabad. All 1037 patients who were affected by Dental caries were included in the analysis. Research period was from January 2013 to December 2013. Local ethical committee approval was obtained before the trial started from the local research ethical committee, Isra University Hospital and all patients gave written informed consent. Written information about the study was given to each patient before attending the clinic. All participants of the study had undergone careful clinical evaluation including a full medical history and clinical examination to confirm the diagnosis of dental caries. Determination of whether the patient fulfils the inclusion / exclusion criteria; written, witnessed informed consent was obtained and a copy given to the patient. They were assured that they can withdraw from the study, at any time, without being required to state a reason and this would not affect their future management. January to December 2013. At confidence level 1 and precision 0.1; calculated sample size was 1037. Cross Sectional Study. Sampling Technique: Non-Probability Sampling Technique. Inclusion Criteria: Patients of ages 11-70 years participated as a study inhabitants were included. Chronic debilitating disease [carcinoma, tuberculosis and diabetes]. Prolong steroid therapy [more than one month]. BMI less than 18 [Before gathering information BMI was computed from several patients by scaling via height and weight scale]. The mean age of the participants was 28 years and ranged between 0 and 60 years; the majority of the participants were Male, 60% [n=600], while 40% [n=400] were female. The entire population [n=1000] was invited to participate in the quality evaluation of dental restorations in the hospital. However, only those patients who had been willing to participate in the evaluation were included. As mentioned above, a total of 1000 out of 1037 patients had agreed in this specific evaluation. A tooth was recorded as "decayed" if it was presented with deteriorated and discolored condition or it had a presentably softened floor or created an ecological imbalance in the equilibrium between tooth, minerals and oral bio-films [plaque]. The result of conducted study depicts that Mean DMFT is higher in males i.e 0.99 and in females its 1. The present study confirmed the findings comparing to previous studies by stating that DMFT keeps on increasing as the age increases. The mean DMFT in age 11-20 is 0.005, 21-40 is 0.003 and 40-60 is 0.001. However, the findings of the current study cannot be generalized because selective nature of inhabitants. Therefore it's the responsibility of family dentist to educate patients about available treatment options and their expected outcomes. The research has evaluated the dental caries risk profile in the adult population and the caries-related factors which can contribute to the risk which were identified. The core reason for this unacceptable rating of such restorations was recurrent level of dental caries.

Dental Enamel

Effects of light activated bleaching and tetra pack orange juice on micro-morphology and composition of dental enamel.

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Smile Dental Journal 2014; 9 (2): 38-43

Keywords: Tooth Bleaching Agents; Curing Lights, Dental; Light; Citrus sinensis; Hydrogen Peroxide; Saliva

Abstract: To study the effects of 38% Hydrogen peroxide activated with LED light and tetra pack orange juice on micro morphology and mineral content of enamel surface. A total of 45 human enamel discs were incubated in saliva overnight to allow pellicle formation and then divided into three groups: 15 for control [G1], 15 for bleaching treatment [G2], and 15 for orange juice immersions [G3]. Surface micro-morphology, calcium and phosphorus were measured with Scanning electron microscope along with energy dispersive spectroscopy five day after treatment. Enamel discs of group 2 were treated with H₂O₂ with LED and group 3 with orange juice for 15 min each cycle repeated four times for five days to simulate daily treatment with the products for 5 days. The discs were stored in saliva between treatment cycles. Normality of the variables was checked by Shapiro-Wilk's test and all variables were found to be approximately symmetric. Repeated measures ANOVA with post-hoc analysis was run to assess the changes in percentages of calcium and phosphorus due to different application. Mild alteration was seen on enamel surface of control group. The photomicrographs of enamel surface after bleaching and irradiated showed moderate generalized surface roughening. Severe alteration of enamel surface was observed in group 3. Group 3 [Orange juice] produced greater calcium and phosphate loss in comparison with all the other groups [p<0.0001]. No significant difference [p>0.999] was observed in calcium and phosphorus loss between group 1 [control] and group 2 [bleached]. Group 3 [Orange juice immersion] significantly altered morphology and increased loss of calcium and

phosphorus erosion of enamel as compared to group 1 [control] and group 2 [Bleached] so, there was significant difference between control and immersion group. There was no significant difference between control and bleached group.

Dental Implants

Basal screw implantology without sinus lifting.

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Pakistan Oral and Dental Journal 2014; 34 (3): 414-416

Keywords: Bone Screws; Dental Implantation; Orthodontic Anchorage Procedures

Abstract: By most clinicians and patients dental implants are considered as the first line of treatment in restoring missing teeth. The prognosis of dental implants has become very accurate, and with minimal postoperative complications. This study was carried out to identify the scenario when teeth are lost due to advanced periodontal diseases, as insufficient bone is found in the involved areas. This will influence the esthetics, and the long term prognosis of dental implants. In such cases dental implant therapy is not an option without additional bone augmentation or sinus lifting. Augmentation and sinus lifting procedures are possible and well established, but they usually increase the overall treatment risk, as the number of necessary operations will increase the cost of the treatment significantly. Basal screw implants are an alternative treatment, as they anchor in stable and resorption free bone areas. Cortical engagement of these endosseous implants allow treatment in immediate load protocol and they avoid peri-implantitis.

Knowledge, perception and choice of dental implants as a treatment option for patients visiting the university college of dentistry, Lahore - Pakistan.

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Pakistan Oral and Dental Journal 2014; 34 (3): 560-563

Keywords: Knowledge; Perception; Questionnaires; Dentistry; Awareness

Abstract: This study was done to assess the awareness about dental implant treatment to patients visiting the University College of dentistry, Lahore, Pakistan. It was a survey which employed a pre-existing questionnaire. The pre-existing questionnaire was in English but each question was translated into Urdu by the surveyors. It included 6 questions regarding patient knowledge about dental implants treatment, source of information, evaluation of satisfaction, willingness to get treatment and the need for insurance. All patients aged 16 years and above [random sampling] visiting University College of dentistry, Lahore were approached and invited to participate in the study. 181 participated in the survey, 69 were male and 112 females. Only 72[39.8%] of the respondents had heard of the method whereas 109 [60.2%] had never heard of the treatment method. Dentists were the major source of information about dental implants [65.2%]. Over 90% of the respondents thought dental implant treatment was very good or good. When given an option for treatment with dental implants willingness to get treatment 80[44.1%] were definite to get dental implant treatment, 66[36.4%] thought they would most likely get dental implant treatment. 93% of the respondents were of the opinion that insurance coverage should be provided. Awareness about dental implants in this sample population was very poor. Awareness programs should be employed in this regard so that more and more individuals may enjoy the benefits of this treatment option.

Overview of procedures for implant placement at posterior maxilla.

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Smile Dental Journal 2014; 9 (2): 10-13

Keywords: Maxilla; Bone Resorption; Maxillary Sinus; Osteotomy

Abstract: Dental implant placement at posterior maxilla is often complicated by bone resorption, poor bone quality and the presence of pneumatized maxillary sinuses. Several techniques have been proposed to facilitate implant placement at posterior maxilla, but the need for a range of surgical interventions, the rate of complications and the extended time-consuming procedures involved, limited patient acceptance of the proposed treatment options. Novel methods were advocated for implant placement at posterior maxilla, whereby the sinus membrane can be elevated quickly and safely via lateral or crestal approaches, or short implants could be placed achieving successful outcome. The surgical time is markedly reduced and the techniques were reportedly comfortable for patients and surgeons. This review presents the scientific concepts and the level of evidence of the clinical procedures of those techniques.

Dental Prosthesis Retention

Retention in mandibular obturators.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 755-759

Keywords: Mandible; Mandibular Diseases; Dental Implants

Abstract: To provide various means of retention in fabrication of mandibular obturators for patients visited Hamdard University Dental Hospital, Karachi. It was a descriptive type of study. The study was carried out Hamdard University Dental Hospital, Karachi. Total duration of this study was two years. Nine patients were selected by purposive non-probability sampling technique. After taking consent, self designed Proforma was filled. Age ranged from 13-72 years. Six of them were males and three females. One of them was already using obturator. With the help of obtained information, various means of retention in maxillary obturator were provided. Interim Obturators were fabricated for six patients while definitive obturators were fabricated for three patients. In eight patients conventional means of retention were employed while implant supported obturator was provided for one patient. Seven patients were satisfied with the performance of obturator. In one patient sectional tray was used for impression while in one patient artificial teeth were arranged by neutral zone technique. Regular follow up was carried out till one year. Utilization of various means of retention brings better compliance in mandibular defect patients provided with obturators.

Dental Pulp Cavity

Frequency of three canals in permanent maxillary second premolars [in vitro]

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Pakistan Oral and Dental Journal 2014; 34 (3): 536-538

Keywords: Bicuspid; Maxilla; In Vitro Techniques; Tooth Extraction

Abstract: The objective of this study was to determine the frequency of three canals in extracted permanent maxillary second premolars. This was an in vitro study conducted at the Dental Outpatient's Department of Liaquat University of Medical and Health Sciences Hospital, Hyderabad/Jamshoro from January 2007 to June 2007. This study included one hundred and fifty extracted permanent maxillary second premolars. Pulp chambers were accessed using round bur in a high speed hand piece. The pulp chambers were irrigated with 2.5% sodium hypochlorite solution for 12 hours to dissolve pulp tissues, then rinsed under running tap water for 2 hours and dried overnight. The dye was introduced coronally and flooded throughout the pulp space by vacuum suction apically. Teeth were then decalcified in 5% nitric acid solution for five days. Eventually teeth were made clear by dipping in methyl salicylate and examined under operating microscope under 7.5 x magnification for frequency of the three canals. Results showed that three canals were found in 2% of the permanent maxillary second premolars. Chi-square test was used to evaluate the results. It was concluded that an accurate clinical as well as radiographic diagnosis based on knowledge of root canal morphology and critical interpretation of radiographs is essential for achieving better outcome of endodontic treatment of the permanent maxillary second premolars.

Identification of middle mesial canal of mandibular first molar: case report using cone-beam computed tomography.

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Pakistan Oral and Dental Journal 2014; 34 (3): 552-554

Keywords: Molar; Mandible; Cone-Beam Computed Tomography

Validity of different methods for MB-2 canal location in permanent maxillary molars.

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Pakistan Oral and Dental Journal 2014; 34 (3): 548-551

Keywords: Maxilla; Microscopy; Cross-Sectional Studies; Tooth Extraction; Molar

Abstract: The purpose of this study was to evaluate the effectiveness of naked eye examination and Dental-operating microscope [DOM] examination for the location of second mesiobuccal canal [MB-2] in extracted maxillary first and second molars, considering the sectioning of the tooth as gold standard for the location of MB-2. This was a cross-sectional comparative study. One hundred extracted permanent maxillary first and second molars [50 of each] were stored in 10% neutral formalin. Using high speed handpiece standard endodontic access cavities were prepared. Initially, the mesiobuccal, distobuccal and palatal canals were located. Subsequently, the location of MB-2 canal was attempted by examining the pulp chamber floor with naked eye using only an endodontic explorer and canal confirmed with 10# K-file. MB-2 canal orifice was either located or not located with this method. Teeth in

which MB-2 canal was not located were further explored under DOM. Yet again MB-2 canal orifice was either located or not located. Finally the mesiobuccal roots of each tooth were sectioned. The sections were explored with endodontic explorer and 10# K file with the adjunctive use of DOM at a magnification of 12x to decide the real presence of MB-2 canal. 42% and 60% of MB-2 canals in maxillary first molar, 20% and 38% of MB-2 canals in maxillary second molar were detected with naked eye and with DOM examination respectively. While 66% and 42% of MB-2 canals were actually present in maxillary first and second molar respectively as confirmed by gold standard [sectioning of teeth]. It is concluded that DOM examination may be more effective for location of the MB-2 canal than naked eye examination.

Denture, Partial, Removable

Quality of life in pediatric patients after providing removable acrylic partial denture.

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Pakistan Oral and Dental Journal 2014; 34 (3): 477-480

Keywords: Acrylic Resins; Quality of Life; Pediatrics; Questionnaires; Mastication; Esthetics, Dental

Abstract: The study was conducted to observe quality of life in pediatric patients provided with acrylic removable partial denture visiting Hamdard University Dental Hospital, Karachi. It was a descriptive type of study. The study was carried out in the Department of Prosthodontics, Hamdard University Dental Hospital, Karachi from January 2012 to December 2013. Non probability purposive sampling technique was used. Total 30 patients visited to Prosthodontics Department of Hamdard University Dental Hospital, Karachi for provision of prosthesis were included in this study. Age range varied from 03-14 years, while sixteen were boys and fourteen were girls. Four of them were already denture wearer. Questionnaire based on OHIP-14 was used to evaluate quality of life in these patients. After collection of data, results were tabulated on SPSS. All patients were provided with acrylic removable partial dentures. Regular follow up was maintained and all patients were satisfied with the performance of their prosthesis. Acrylic removable prosthesis can be very effective for oral rehabilitation of pediatric patients when fixed prosthesis is not feasible due to multiple factors.

Diabetes Mellitus

[A qualitative study to define diabetic women's views about health, illness, complications and experienced restrictions, attending Ahvaz diabetes clinic]

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IJEM-Iranian Journal of Endocrinology and Metabolism 2014; 16 (4): 235-244

Keywords: Health; Diabetes Complications; Evaluation Studies as Topic; Women

Abstract: Diabetes is a chronic, progressive illness with the potential for debilitating physical and mental complications. Patients' views about health, illness, control and treatment are predictive of the outcome of changes in lifestyle and treatment planning. The aim of this study was to explore diabetic women's views about the disease and the consequences experienced due to diabetes. A qualitative approach, thematic analysis method, semi-structured interview study was conducted in Ahvaz in 2013. Forty diabetic women were interviewed individually using purposeful sampling. Interviews were recorded and typed verbatim and analyzed using constant comparison simultaneously with data collection. After collecting and analyzing the data, 117 initial codes, 14 second level codes and 3 main codes emerged. The main concepts were different feelings about their health and illness status, 2- psychological and mental symptoms, 3- restrictions experienced due to the control and treatment of the disease. Diabetic women believed that diabetes is a serious illness and negative views about insulin were common. Subcategories were worried about hypoglycemia after insulin injections, fear of disability due to the disease, further progression of diabetes, fear and embarrassment of insulin injection and cost of follow-up and treatment of the disease. Negative attitudes towards diabetes were common. Contradictory patient views about health can play an essential role in self-care practice and since patients with diabetes experience many problems, a thorough understanding of these can contribute to planning health care for these patients.

Diabetes Mellitus, Experimental

[Combined effect of aerobic training and Pistacia atlantica extract on GLUT-4 protein expression and muscle glycogen in diabetic rats].

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IJEM-Iranian Journal of Endocrinology and Metabolism 2014; 16 (4): 245-253

Keywords: Exercise; Pistacia; Plant Extracts; Glucose Transporter Type 4; Glycogen; Muscle, Skeletal; Rats, Wistar

Abstract: The effects of exercise training on GLUT4 protein expression have been examined in several studies whereas those of aerobic training along with the use of plant extracts on muscle GLUT4 protein expression are unknown. The aim of the present study was to investigate the effects of aerobic training and Pistacia atlantica extract on GLUT4 protein expression and glycogen level in the gastrocnemius muscle of diabetic rats. Forty-male Wistar rats were randomly divided into five groups: Healthy control, diabetic control, diabetic+ aerobic training, diabetic+extract and diabetic+ aerobic training+ extract. The program included six weeks of aerobic training on the treadmill. Forty eight hours after last session of training and consumption the extract, the rats were anesthetized and gastrocnemius muscle was isolated for measurement of glycogen levels and GLUT4 protein expression. Data was analyzed by using one-way ANOVA test [$P < 0.05$]. GLUT4 protein expression and glycogen levels in gastrocnemius muscle in diabetic+ aerobic training+ extract group were significantly higher than in the diabetic control group [P values 0.001, 0.02 respectively], whereas these variables in the aerobic training and the Pistacia atlantica extract per se groups did not change compared to the diabetic control group. It seems that Pistacia atlantica extract along with specific exercises, compared to utilization of each of strategies per se, are more effective in increasing glucose transporter proteins and possibly improving insulin function.

Diabetes Mellitus, Type 2

Incidence of QTc prolongation in type 2 diabetes mellitus and its relation to cardiac autonomic neuropathy.

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Jordan Medical Journal 2014; 48 (2): 102-112

Keywords: Diabetic Neuropathies; Incidence; Electrocardiography; Heart

Abstract: Recently there has been growing interest in the relationship between diabetes and QTc. Prevalence of prolonged QTc interval is higher in people with type 2 diabetes as compared to non-diabetic subjects, especially in the presence of autonomic neuropathy. QTc prolongation in diabetic autonomic impairment has been reported by numerous authors and also has been reported to lead to sudden death. The main aim of this study is to estimate the incidence of QTc prolongation in type 2 diabetes mellitus and its relationship to cardiac autonomic neuropathy. From January 2009 to September 2009, we enrolled 150 type 2 diabetic patients attending the Sulaimani diabetic centre. We also enrolled 100 non diabetic control groups. Both group underwent measurement of QT interval, subsequently QTc estimated according to Bazett equation. We also performed 5 cardiovascular autonomic tests including resting heart rate measurement, heart rate variation with inspiration and expiration, valsalva maneuver, blood pressure response to handgrip and standing. Among the 150 cases 13 were found to have prolonged QTc [8.7%], 11 were females 2 were males [p value 0.041]. No one in the control group showed prolonged QTc. Regarding cardiac autonomic neuropathy [CAN], 106 cases had CAN 35, 40 and 31 for early, definite and severe cases, respectively. There was significant correlation between QTc and CAN [p value 0.000] QTc prolongation was significantly related with increasing age [p value 0.010] and female gender [p value 0.041] but no relationship was found with duration of DM [p value 0.520]. Sensitivity of prolonged QTc for detection of CAN was 20%, with specificity and positive predictive value of 98.7% and 92.3%, respectively. We realized that QTc prolongation occur in cardiac autonomic neuropathy due to DM and it's highly specific for CAN but insensitive. It is significantly correlated with age and gender but no relation found with duration of DM.

blood

Mean platelet volume and glycemc control in patients with type 2 diabetes.

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Assiut Medical Journal 2013; 37 (1):121-126

Keywords: Blood Platelets

Abstract: The mean platelet volume [MPV] is a marker of platelet activity. The increased platelet activity may play a role in the development of vascular complications of type 2 diabetes. The association between platelet activity and glycemc control in diabetics is uncertain. Therefore, We aim 10 assess MPV in patients with type 2 diabetes and to determine the correlation of MPV with the degree of glycemc control Platelet counts and MPV were measured in 60 Type 2 diabetic patients and 20 healthy subjects using an automated blood cell counter. The fasting plasma glucose levels, two-hour postprandial plasma glucose levels and HbA1c levels were also measured. Also, patients with type 2 diabetes were classified into two groups according to their HbA1c levels: group A with HbA1c <7% and group B with HbA1c \geq 7%. The MPV was significantly higher in diabetics compared to the healthy subjects [8.9 +/- 1.1 fl versus 7.2 +/- 0.9 fl [$P < 0.001$]]. MPV showed a strong positive correlation with fasting plasma glucose, two-hour postprandial plasma glucose and HbA1c levels [$P < 0.001$ for each]. The MPV in groupB [9.2 +/- 1.4 fl] was significantly higher than that of group A [8.4 +/- 1.3 fl; $P = 0.003$]. We concluded that mean platelet volume is significantly higher in type 2 diabetes and this is more apparent in those with poorer glycemc control. Therefore, glycemc control may decrease the platelet hyperactivity and thus may prevent or delay possible diabetic vascular complications.

complications

Diagnostic value of B-natriuretic peptide, ankle brachial index and carotid doppler in detection of sub-clinical cardiovascular disease in type 2 diabetic patients.

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Assiut Medical Journal 2013; 37 (1): 61-74

Keywords: Cardiovascular Diseases-diagnosis; Natriuretic Peptide, Brain-blood; Antle Brachial Index-methods; Carotid Artery Diseases-diagnosis

Abstract: Diabetes is important as a cause of cardiovascular disease [CVD], ranging from asymptomatic ischemia to clinically evident heart failure. Therefore, early identification of sub-clinical CVD in diabetic patients may be particularly important in leading to early initiation of treatment. The aim of the present study was to identify role of BNP [Brain natriuretic Peptide]. Ankle Brachial Index [ABI] and carotid Doppler in detection of sub-clinical CVD in type 2 diabetic patients. BNP was measured in 60 consecutive diabetic patients [patients group] whom were attended internal medicine outpatient clinics or admitted at endocrinology unit of Assiut university hospital. Another 40 patients; were chosen as [control group] their age and sex matched with patients. Echocardiography examinations were performed to all participants. ABI measurements were conducted on all study participants. Carotid intima Media Thickness [CIMT] and carotid Plaque were evaluated by Carotid Doppler Ultrasonography, along with the determination of anthropometric parameters, HbA1c, lipid profile, assessment of diabetic retinopathy, nephropathy, and neuropathy, in patients with type 2 diabetes mellitus [T2DM]. Our study revealed 11 patients had Left ventricular hypertrophy [LVH], 20 patients had Left Ventricular Diastolic Dysfunction [LVDD], and no systolic dysfunction were detected. BNP were independent determinants of mild to moderate LVDD. Prevalence of a low ABI [<0.9] was 18.3%. Patients with low ABI had significant increased mean ages [$P=0.038$] duration of DM [$P=0.004$], concentration of HbA1c [$P=0.044$], BNP [$P=0.013$] and microalbuminuria [$P=0.007$]. Patients with low ABI significantly associated with nephropathy [$P=0.001$], retinopathy [$P=0.007$], LVH [$P=0.010$] LVDD [$P=0.018$] and carotid artery atherosclerosis [$P=0.018$]. 20 patients [33.3%] were found to have evidence of carotid artery disease of them 5 patients [8.3%] had increased CIMT and 15 patients [25%] had carotid artery plaques, patients with carotid plaque were significantly smoker [$P=0.008$], male gender [$P=0.013$], had low HDL [$P=0.008$] and higher concentration of HbA1c [$P=0.001$]. Also patients with carotid artery atherosclerosis were significantly associated with nephropathy [$P=0.000$], neuropathy [$P=0.050$], Peripheral Arterial Disease [PAD] [$P=0.018$], LVDD [0.002]. Conclusion: Our study showed that BNP discriminated patients at high risk for mild to moderate LVDD. A low ABI were prevalent in our study and associated with age, duration of diabetes, high HbA1c, microalbuminuria and chronic complication of DM, also carotid atherosclerosis high prevalent in our study especially carotid plaques which significantly associated with male gender, smoking, high HbA1c, low HDL, LVDD, PAD, and diabetic microangiopathy.

Integral relationship of some adipocytokines with glycaemic control and cardiovascular risk in type 2 diabetes mellitus with application of incretin enhancer.

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Assiut Medical Journal 2013; 37 (1): 201-216

Keywords: Cardiovascular System; Adipokines-physiology; Incretins-therapeutic uses

Abstract: Adipocytokines achieve fundamental physiological targets with respect to energy balance, glucose homeostasis and cardiac performance. Visceratin, resistin, apelin and leptin are active adipocytokines, however their relations to diabetes mellitus [DM] and cardiovascular functions are poorly elucidated. The objectives of this study are to clarify the relation of adipocytokines in type 2 DM and cardiovascular risks [hypertension and dyslipidaemia] and their responses after application of incretin enhancer. Type 2 DM patients and fifteen healthy controls were enrolled. Patients were randomized to receive the usual regimen [metformin 850 mg three times /d orally] in group I [n=19], incretin [Vildagliptin 50 nig twice/d] in group II [n=17] or the combination of both agents in group III [n= 17] for 14 weeks. Results: The adiposity related parameters, SBP, DBF, glycaemic control parameters increased significantly [$p<0.001$] in all diabetic groups relative to the controls in addition to disturbance of lipid profile. A significant increase in the level of visfatin, resistin, leptin and apelin in all diabetic patients was also observed. Both incretin enhancer and metformin led to significant improvement in glycaemic parameters [fasting blood glucose and glycosylated haemoglobin], lipid profile [total cholesterol and triglycerides] with more noticeable effects after incretin application. The addition of incretin enhancer seemed to confer greater benefits in amelioration of Body mass index [BMI], SBP, DBF, fasting insulin level, HDL and the measured adipocytokines levels in group II and III. However, the advancement get more in the combination group which; suggest the complementary functions of both agents. Aforementioned changes in adipocytokines of controls were correlated positively with BMI, SBP, DBF, FBG and HbA1c but they were non-significantly related to other anthropometries and laboratory parameters. At baseline, significant positive correlations between adipocytokines with BMI, FBG and HbA1c in T2 DM patients were evident. These results reflect involvement of adipocytokines in pathophysiology of T2 DM and the associated cardiovascular risks and improvement was proved in BMI, glycaemic control and cardiovascular complications after application of incretin enhancer nevertheless, the overall clinical monitoring of incretin enhancer must be further assessed in wider scale.

Obstructive sleep apnea among patients with type 2 diabetes: prevalence and effect on glycemic control.

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Assiut Medical Journal 2013; 37 (1): 249-256

Keywords: Sleep Apnea, Obstructive; Prevalence; Blood Glucose

Abstract: Obstructive sleep apnea [OSA] is a highly prevalent comorbidity of type 2 diabetes. The aim of this work is to determine the risk of OSA in patients with type 2 diabetes and its effect on the glycemic control. This study was conducted at Assiut University Hospital Sleep Unit, 52 patients with type 2 diabetes were included, all patients underwent an overnight polysomnography [PSG] and glycosylated hemoglobin [HbA1c] measurement. A total of 62% [n=32] of patients with type 2 diabetes had OSA (apnea-hypopnea index [AHI] \geq 5 events/hour). 27% [n=14] of patients had mild OSA [5 \leq AHI <15], 19% [n=10] had moderate OSA [15 \leq AHI <30] and 16% [n=8] had severe OSA [AHI \geq 30]. There was a significant positive correlation of HbA1c levels with apnea hypopnea index, a widely accepted marker of the severity of OSA [P<0.001]. Also, we found that increasing OSA severity was correlated with increasing HbA1c levels [p<0.001]. The mean HbA1c values were 8.2% for those without OSA, 9.4% for mild OSA, 10.1% for moderate OSA and 10.6% for severe OSA. We concluded that the prevalence of OSA in this study was 62% and increasing severity of OSA is associated with poorer glycemic control. Therefore, identifying and treating OSA in patients with type 2 diabetes may improve their glycemic control.

Diabetes, Gestational

Diabetic pregnancy; perinatal complications.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 633-638

Keywords: Perinatal Care; Hypoglycemia; Fetal Macrosomia; Asphyxia Neonatorum; Asphyxia

Abstract: To evaluate perinatal complications in pregnancy complicated with diabetes mellitus. During this study period all pregnant ladies regardless of age and parity, who were diagnosed as having diabetes whether pregestational or gestational were included in this study. Perinatal outcome was observed in terms of birth weight, macrosomia, preterm baby, stillbirth, intrauterine death, neonatal death, respiratory distress syndrome and congenital anomalies. All informations were recorded on preformed proforma and analysed through SPSS version 11. A descriptive observational study. This study was conducted in the department of obstetrics and gynaecology unit- I at Liaquat University Hospital Hyderabad, Sindh- Pakistan, from 12th July 2004 to 11th July 2005. Among perinatal complications macrosomia was observed in 44% of fetuses, congenital malformations in 5 infants of diabetic mothers. Stillbirth was noted in 5% and neonatal deaths in 10% babies. 55% of neonates suffered from hypoglycemia and 33% had birth asphyxia. It was observed in our study that perinatal outcome is highly affected in pregnancy with diabetes. For a successful outcome of pregnancy in such patients a tight glycemic control from conception till delivery, antepartum fetal surveillance and neonatal care by trained paediatrician must be ensured.

Dioxins

toxicity

In utero and lactational exposure to dioxin altered the reproductive function in female rat offspring before and after puberty.

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Assiut University Bulletin for Environmental Researches 2013; 16 (1): 13-39

Keywords: Reproduction; Rats; Female; Maternal Exposure; Ovulation-physiology; Luteinizing Hormone-methods; Follicle Stimulating Hormone-methods; Estradiol; Progesterone-blood; Radioimmunoassay-methods

Abstract: To evaluate effects of in utero and lactational 2,3,7,8-tetrachlorodibenzo-p-dioxin [TCDD] exposure on the reproductive function in female rat offspring, before and after puberty. The pregnant Sprague Dawley rat administered 0, or 1.0 mg TCDD/kg on Gestation Day [GD] 8 and 15. Female offspring were examined at the post-weaning before puberty on postnatal day [PND] 21 and in young adult stage of development on PND42. Ovulation assessment, radioimmunoassay for serum gonadotropins, steroids and histo-morphometric analysis to the ovaries were evaluated. The analysis included a count, measurement and classification of preantral and antral follicles throughout the entire ovary on PND 21. The results indicate that TCDD treatment significantly reduced the ovulation rate, serum gonadotropins, steroids levels and the number of antral and preantral follicles of certain size classes. The histopathological examination revealed small preovulatory follicles displaying an atretic morphologic difference among the ovaries of rats exposed to TCDD treatments. These data support the hypothesis that TCDD results in adverse effects on female reproductive function. However, the age of animals before or after puberty play an important role in the difference between results. Moreover, TCDD exposure on the GD 8 or 15 has a great concern in the results observed.

Disinfection

Sacrificial protection method during disinfection to avoid corrosion.

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Pakistan Oral and Dental Journal 2014; 34 (3): 571-573

Keywords: Corrosion; Alloys

Abstract: Alloys are used in every aspect of dentistry. Corrosion of an alloy is a major issue during disinfection and method adopted for anti-corrosion treatment is very costly. The purpose of this paper was to demonstrate the sacrificial protection (SP) technique and preventing the corrosion of dental metals. The method used in the present was Sacrificial protection (SP) technique to control the corrosion of a metal surface by attachment of a metal [i.e., aluminum.] with a higher ionization potential to the original metal which acts as the anode of an electrochemical cell. The study was conducted at Dr Ishrat-ul-Ebad Khan Institute of Oral Health Sciences, Dow University of Health Sciences in September-November 2013. The results of the present were that there is no corrosion found on the surface of the metal while immersing them into electrolyzed water for 7 days. It was concluded that during immersion into functional waters for disinfection, dental metals often undergo tarnishing and corrosion due to which their properties will be compromised. Therefore, to prevent the corrosion of dental metals, the present study revealed an effective and simple method. Sacrificial protection is very simple and cost effective method to prevent the dental material from corrosion.

Drinking Water

microbiology

Pathogens from drinking water; isolation and antibiogram of pathogenic organisms from drinking water in Quetta city.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 760-765

Keywords: Microbial Sensitivity Tests; Escherichia coli; Enterobacter; Klebsiella; Pseudomonas; Salmonella

Abstract: Main objective was to check drinking water for pathogenic bacterial load, their resistance to antimicrobials and to create awareness among the people of Quetta city about safe drinking water. The study was conducted in Department of Microbiology Bolan Medical Complex Hospital Quetta during the hot season in Quetta City [June- September 2013]. One hundred and twenty five [125] tap water samples were collected aseptically in 200 ml sterile capped glass bottles from different localities of Quetta city. Samples were passed through mille pore assembly containing 0.45 micropore-size cellulose nitrate sterile membrane filter [MF]. Viable count technique was used for enumeration of water samples having high bacterial burden. Serological tests and analytical profile index API-20E [Biomerieux France] were used to identify pathogens according to the manufacturer's directions. Standardized antibiotic sensitivity test was performed on Mueller Hinton agar using disc diffusion Kirby Bauer technique and McFarland Turbidity Standard method 0.5 following CLSI protocols. Out of hundred and twenty five [125] tap water samples 110 [88%] showed highly pathogenic bacterial load, in which the most prominent organism was E.coli 36 [28.8%], followed by Enterobacter 35 [28%], Klebsiella 24 [19.2%], Pseudomonas, 10 [08%], and Salmonella 05 [04%]. All pathogens in this study expressed a high level of resistance to antimicrobials that are commonly used in clinical medicine i.e. Tetracycline, Gentamycin, Sulphamethaxazole, Piperacillin, Ampicillin, Augmentin and Imipenem etc. Only 15 [12%] samples were pathogens free. Among drinking water samples the presence of pathogenic bacteria [88%] is alarming for public health authorities. The emergence of resistance and decreasing level of susceptibility of pathogens to a wide spectrum of antimicrobials is a matter of great concern, because it may limit the availability of antimicrobials for clinical management of water born outbreaks in future.

Dry Socket

Serious post extraction complaint.

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Pakistan Oral and Dental Journal 2014; 34 (3): 433-436

Keywords: Tooth Extraction; Mandible; Maxilla; Causality

Abstract: This study was conducted to determine the predisposing factors for the development of dry socket among the patients of Peshawar Dental Collage Hospital, Khyber Pakhtunkhwa - Pakistan. Two thousand five hundred and twenty six mandibular and maxillary extractions were done over a period of one year. The data were recorded on two separate proformas and were entered in SPSS version 15 [WHO]. Analysis was done to determine the frequency and percentages for all variables. Total of 1.20% patients developed signs and symptoms of dry socket after 3-4 days. Male to female patient ratio was 1:1.5. Peak incidence occurred during 36-45 years age. Majority of patients were healthy at the time of extraction. Diabetic patients, smokers and female taking contraceptive pills frequently reported with dry socket. More dry socket was seen in Posterior mandibular extractions. Intra-ligamental anesthesia and surgical extractions with flap elevations resulted in dry socket. Majority of patients who didn't follow post extraction instructions presented more with dry sockets. It was concluded that formation of dry socket can be prevented by taking proper history of the patient, prescribing antibiotics for infections and avoiding excessive use of local anesthetic with adrenaline. Atraumatic surgical extraction will reduce the chances for the development of dry socket. Proper post extraction instructions and scheduled follow ups will further reduce the chances for dry socket.

epidemiology

Prospective study of the development of alveolar osteitis after 3rd molar impacted teeth extraction in randomly selected patients.

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Pakistan Oral and Dental Journal 2014; 34 (3): 422-425

Keywords: Tooth, Impacted; Tooth Extraction; Molar, Third; Prospective Studies; Incidence; Mandible; Maxilla; Risk Factors

Abstract: Alveolar Osteitis is the most common post-surgical complication following extraction of impacted 3rd molar teeth. Various risk factors have been mentioned for this complication including gender, age, and amount of trauma during extraction, difficulty of surgery, inappropriate irrigation, infection, smoking, and oral contraceptive use. The aim of the current study was to evaluate the incidence of alveolar osteitis among patients who had undergone surgical removal of impacted third mandibular and maxillary molars in Oral and Maxillofacial Department of Khyber College of Dentistry, Peshawar, Pakistan and also to identify the background risk factors in terms of age of the patient and experience of the operating dentists. A total of 1026 patients with a total of 1345 extractions formed the study group. Extractions to remove impacted third mandibular and maxillary molar teeth from 2006 to 2007 were included in this study. A questionnaire was designed in which the inclusion criteria age, gender, site of extraction, smoking and experience of the dentist while in exclusion criteria oral contraceptive use, menstrual cycle phase, systemic disorders, and use of antibiotics prior to surgery were included respectively. The incidence of Alveolar Osteitis was 12.07% as a whole in both the genders, whereas 16.95% alveolar osteitis developed in mandible and 7.34% in maxillary third molars extractions. However, incidence of Alveolar osteitis was significantly relevant to the patient's age, as well as the experience of the dentist in the extractions of impacted third molars. Incidence of alveolar osteitis was higher where extractions were performed by the less experienced dentists due to the more traumas.

Echinococcosis

diagnosis

Isolated gastrocnemius hydatid cysts: a case report.

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Jordan Medical Journal 2014; 48 (2): 138-143

Keywords: Muscle, Skeletal; Albendazole; Magnetic Resonance Imaging

Abstract: Hydatid cysts generally involve the liver and the lungs. Exclusive involvement of muscle is extremely uncommon, especially calf muscles. We report a case of hydatid cyst in gastrocnemius muscle. A 38 year old female presented with painless right calf mass of one year. Radiological tests showed a cystic lesion suggestive of hydatid cyst in the calf with no liver or lung involvement. Surgical excision of two gastrocnemius cysts was done and the patient was started on Albendazole. The patient had an uneventful recovery. Final histopathological report confirmed the diagnosis of hydatid cyst. Hydatid cyst should be included in the differential diagnosis of any soft tissue mass, especially in endemic areas.

Eclampsia

Eclampsia; maternal morbidity and mode of delivery in the management.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 628-632

Keywords: Morbidity; Delivery, Obstetric; Disease Management; Prospective Studies; Cesarean Section

Abstract: To determine the maternal morbidity and mode of delivery in eclamptic patients. Descriptive studies [cases series]. One year from 1.3.2012 to 28.2.2013. Dept of Obstetrics and Gynecology Unit-III Liaquat University Hospital Hyderabad. This study included 97 eclamptic patients. The main variables of interest were maternal age, parity, booking status, gestational age, mode of delivery and maternal complications like HELLP syndrome, pulmonary edema, post partum hemorrhage, renal failure, neurological deficit and ICU admission. During the study period 2839 obstetrical patients were admitted with 97 cases being eclamptic give an incidence of 3.4%. Majority were unbooked 94.8%, Primigravida 58.8% and ≤ 25 years of age 68%. Complications were seen in n 50.51% and 12.4% patients have more than one complications. Vaginal route was mode of delivery in 53.60% and cesarean section was in 44.32% patients. Eclampsia still responsible for significant maternal morbidity and mortality. Eclampsia can only be successfully managed by early detection and prompt treatment of pre-eclampsia.

Education, Dental

Adult learning in our dental education system.

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Pakistan Oral and Dental Journal 2014; 34 (3): 494-497

Keywords: Learning; Adult

Abstract: The importance of ensuring that adults receiving higher education have access to high quality and effective learning throughout their period of study is paramount. It is meant to be an aspect of lifelong exploring carrying key components of self-motivated pursuance for either personal or professional reasons. An educational system needs to understand the basic demands which fulfil the basic fundamental requirements of education; yet understand the learners. Learner needs systemized steps of education which imparts practical experience to their life.

Electromagnetic Fields

adverse effects

Deterioration of testicular functions in adult male rabbit after exposure to mobile phone radiation with impending recovery.

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Assiut Medical Journal 2013; 37 (1): 257-268

Keywords: Testis-pathology; Semen-cytology; Rabbits; Male; Sperm Count; Sperm Motility

Abstract: The accumulate effects of electromagnetic field [EMF] release from mobile phones have many effects on multiple organs. Nevertheless, its effect on testicular function is still debated. The objective of the study is to clarify the alterations in testicular functions after exposure to electromagnetic radiation of mobile phone and to investigate the possibility of recovery. Eighteen adult male rabbits are enrolled into 3 groups: control, exposed and recovery group. The exposed and recovery groups are exposed to mobile phones in standby position for 18 hours /day and six day/week for 14 weeks. After that, the recovery group was monitored for another 14 weeks. exposure to EMR induced a significant drop in sperm count, sperm motility and sperm fast forward motility at the 6[th], 12[th] and 9[th] week respectively and get maximum inhibition at the 14[th] week. These finding were concomitant with degenerative changes in seminiferous tubules and interstitial cells of Leydig. These negative effects may be attributed to the detectable decrease in the serum level of testosterone, gonadotrophic hormones, increase the level of oxidative stress and direct deterioration of testicular tissue. The other study points [body and testicular weight, body temperature and percentage of sperm morphology and live sperm] did not show any alteration. Recovery period significantly ameliorated the suppressed testicular functions and also, restored the hormonal and oxidative biomarkers within the 14 weeks. the longitudinal exposure to EMR causes testicular dysfunction that may be mediated by hormonal disturbances, oxidative stress or direct damage on testicular tissue that could reverse and improve within the recovery period.

Electronic Health Records

Physician satisfaction with electronic medical records in a major Saudi government hospital.

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Journal of Taibah University Medical Sciences 2014; 9 (3): 213-218

Keywords: Job Satisfaction; Personal Satisfaction; Physicians; Government; Hospitals; Cross-Sectional Studies

Abstract: The objectives of this study were to measure physician satisfaction with a recently introduced electronic medical record [EMR] system and to determine which of the individual attributes of EMR were related to physician satisfaction. One year after introduction of an EMR system, physicians in an inpatient department were asked to answer a self-administered survey. Pearson's correlation coefficient was used to determine which attributes were significantly related to overall satisfaction with the system. Linear regression analysis was then performed to examine the association between the three main domains of the questionnaire and overall satisfaction with the system, with adjustment for physician demographic characteristics. A total of 115 physicians answered the survey. Only 40% were satisfied with the system overall. The best predictors of overall satisfaction were performance in the form of speed, integration with workflow, and patient information, such as accuracy, completeness and timeliness. Physicians were generally not satisfied with the system. Continued evaluation of such systems and feedback from users should guide future selection and implementation.

Embryonic Stem Cells

The effects of plasma treated electrospun nanofibrous poly [epsilon-caprolactone] scaffolds with different orientations on mouse embryonic stem cell proliferation.

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Cell Journal [Yakhteh] 2014; 16 (3): 245-254

Keywords: Polyesters; Caproates; Lactones; Cell Proliferation; Mice; Nanofibers; Tissue Scaffolds

Abstract: Assessments of cell reactions such as motility, orientation and activation to the topography of the substratum will assist with the fabrication of a proper implantable scaffold for future tissue engineering applications. The current challenge is to analyze the orientation effect of electrospun nanofibers of poly [epsilon-caprolactone] [PCL] on viability and proliferation of mouse embryonic stem cells [mESCs]. In this experimental study, we used the electrospinning method to fabricate nanofibrous PCL scaffolds. Chemical and mechanical characterizations were specified by the contact angle and tensile test. O₂ plasma treatment was used to improve surface hydrophilicity. We used the 3-[4,5-dimethylthiazol-2-yl]-2,5-diphenyltetrazolium bromide [MTT] assay to evaluate mESCs adhesion and proliferation before and after surface modification. The influence of the orientation of the nanofibers on mESCs growth was evaluated by scanning electron microscopy [SEM]. Statistical analysis was performed using one-way analysis of variance [ANOVA] With differences considered statistically significant at $p \leq 0.05$. The results showed that plasma treatment improved the hydrophilic property of PCL scaffolds. MTT assay showed a significant increase in proliferation of mESCs on plasma treated PCL [p-PCL] scaffolds compared to non-treated PCL [$p \leq 0.05$]. However gelatin coated tissue culture plate [TCP] had a better effect in initial cell attachment after one day of cell seeding. There was more cell proliferation on day 3 in aligned plasma treated [AP] nanofibers compared to the TCP. SEM showed optical density of the cell colonies. Aligned nanofibrous scaffolds had larger colony sizes and spread more than random nanofibrous scaffolds. This study showed that plasma treating of scaffolds was a more suitable substrate for growth and cell attachment. In addition, aligned nanofibrous scaffolds highly supported the proliferation and spreading of mESCs when compared to random nanofibrous scaffolds and TCP.

Endodontics

Magnification in endodontics a literature review.

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Smile Dental Journal 2014; 9 (2): 14-21

Keywords: Microscopy; Dental Pulp Cavity

Abstract: Thorough mechanical and chemical cleansing of the entire root canal system and its complete obturation with an inert filling material are one of the most important objectives of successful endodontic treatment. Recent developments in dental equipment have improved the clinician's ability to clean, shape, and obturate almost the entire root canal system, thus increasing the quality and the efficiency of root canal treatment. The introduction of magnification devices has resulted in technical changes in the approach to root canal preparation. Along with the development of such devices, the use of magnification and well-focused illumination devices has been recommended to provide the minimum standard of care. This review of the literature presents the role and merits of magnification in endodontics.

Occlusal reduction reduces postoperative pain after endodontic instrumentation.

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Pakistan Oral and Dental Journal 2014; 34 (3): 539-542

Keywords: Pulpitis; Dental Occlusion; Pain, Postoperative; Percussion; Prospective Studies

Abstract: Pain management after root canal treatment is a very important issue in clinical practice. The purpose of this study was to evaluate the effect of occlusal reduction on postoperative pain in teeth with irreversible pulpitis and tenderness to percussion. This was a prospective, randomized study conducted in Operative Department of dental section of Bahria Dental College and Hospital from June 2013 to May 2014. One hundred and ten posterior teeth with no or mild preoperative pain, sensitive to percussion requiring endodontic treatment were included in this study. After administration of local anesthesia, the root canals were instrumented, and an intracanal calcium hydroxide dressing was placed. The patients were randomly divided into 2 groups of 55 each. In 1 group the occlusal surface was reduced [OR group], whereas in the other group the occlusal surface was not modified [no occlusal reduction, NOR group]. The patients were recalled after 24 hour, 2nd day and 3rd day to record their postoperative pain on the visual analogue scale. Data was analyzed by using Chi-square test. There was no significant difference in postoperative pain between the 2 groups [$P > .05$] after root canal preparation and calcium hydroxide dressing. Occlusal surface reduction did not provide any further reduction in postoperative pain for teeth with irreversible pulpitis and mild tenderness to percussion compared with no occlusal reduction.

Eosinophilia

diagnosis

Widespread eosinophilic pustular folliculitis in a nonimmunocompromised patient.

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Medical Principles and Practice 2014; 23 (5): 475-477

Keywords: Folliculitis-diagnosis; Skin Diseases, Vesiculobullous-diagnosis; Indomethacin-therapeutic use; Skin Diseases

Abstract: We present a case of eosinophilic pustular folliculitis, a rare dermatosis which is often associated with HIV infection or internal malignancies. Clinical Presentation and Intervention: We report the case of a 66-year-old man with a medical history of hypertension. Histopathological examination showed a dense follicular inflammatory infiltrate with abundant eosinophils. The clinical response to indomethacin was excellent with no recurrence during the follow-up. The patient responded well to indomethacin treatment.

Erythropoietin

Comment on the paper entitled' erythropoietin ameliorates oxidative stress and tissue injury following renal ischemia/reperfusion in rat kidney and lung.

Aydin, Mustafa; Hakan, Nilay; Deveci, Ugur; Zenciroglu, Aysegul; Okumus, Nurullah

Elazig Training and Research Hospital - Department of Pediatrics

Medical Principles and Practice 2014; 23 (5): 485-485

Keywords: Oxidative Stress; Reperfusion Injury; Rats; Kidney; Lung; Ischemia; Reperfusion

Exercise

[The effect of aerobic exercise on the levels of vascular endothelial growth factor and glucose in hypertensive postmenopausal women: a randomized clinical trial]

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Qom University of Medical Sciences Journal 2014; 8 (4): 6-12

Keywords: Vascular Endothelial Growth Factor A-blood; Blood Glucose; Hypertension; Postmenopause; Women
Abstract: Methods of lifestyle modification, including exercise can prevent cardiovascular disease in hypertensive patients through augmentation of endothelial function. The aim of this study was to determine the effect of 6 weeks of aerobic exercise on the plasma levels of vascular endothelial growth factor [VEGF] and glucose in hypertensive postmenopausal women. In this clinical trial, 20 stage 1 hypertensive postmenopausal women [50-55 years old] were randomly divided into two groups of exercise training and control. Training program consisted of 6 weeks of

45-60min aerobic exercise at 50-65% of maximum heart rate, for 45-60min per session, and 3 sessions per week. The control group did not participate in any training program. Blood pressure [BP] and plasma levels of VEGF and glucose was measured before and 48h after the last training session. Data were analyzed using Kolmogorov-Smirnov, Levene, and paired t-tests. $p < 0.05$ was considered statistically significant. Systolic and diastolic BP was significantly reduced in the exercise training group after 6 weeks [$p < 0.001$]. In addition, 6 weeks of aerobic exercise significantly increased VEGF [$p < 0.002$] and decreased glucose level [$p < 0.001$]. According to the results of this study, regular aerobic exercise training is associated with a decrease in blood glucose and also an increase in VEGF in hypertensive postmenopausal women.

Exostoses

epidemiology

Prevalence of torus mandibularis and torus palatinus among children and adults in Jordan.

Bsoul, Thamer Mohammad Anwar

Pakistan Oral and Dental Journal 2014; 34 (3): 564-565

Keywords: Mandible-abnormalities; Palate, Hard-abnormalities; Prevalence; Child; Adult

Abstract: The objective of this study was to determine the prevalence of torus palatinus and mandibularis in relation to age and gender among 322 subjects seen at Hill House Kindergarden Students, Mashrek International School and our clinic. Out of the 322 subjects examined only 30[9.3%] had either TP, TM or both.

Femoral Fractures

Supracondylar fracture; functional outcome of femur fixed with dynamic condylar screw.

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Civil Hospital - Department of Orthopedic Surgery

Professional Medical Journal-Quarterly [The] 2014; 21 (4): 644-648

Keywords: Bone Screws; Treatment Outcome; Fracture Fixation; Femur

Abstract: Management of supracondylar femur fracture is complex. The objective of this study was to assess the functional outcome of our patients managed with dynamic condylar screw fixation. This descriptive case series was carried out in the department of Orthopedic Surgery, Dow University of Health Sciences / Civil Hospital Karachi from 6th October, 2012 to 5th April, 2013. All the patients with Type A supracondylar fractures of femur diagnosed clinically and radiologically presenting within two weeks of injury were included. Patients with systemic injuries were excluded. Final functional outcome were assessed by Schatzker and Lambert Criteria. A total of 97 patients were included in this study. The average age of the patients was 38.36 +/- 9.45 years [years + SD] and average duration of fracture was 6.10 days. Male to female ratio was 2.03: 1. Two third of patients [67.01%] were injured by road traffic accident, 28.87% suffered fall from height and 4.12% had slips. Acceptable outcome [Excellent and Good] at three months was observed in 86.6% [84/97] patients while unfavorable outcome [Moderate and poor] were observed in 13.4% [13/97] cases. Outcome was better in patients below 50 years of age [$p = 0.0005$]. Dynamic condylar screw appeared to be an easy, less technically demanding and effective method for stabilization of supracondylar femur fractures. Younger age group [age < 50yrs] had better functional outcome.

therapy

Management of type-II open fracture shaft of femur with intramedullary interlocking nail.

Abdul Rehman; Khani, Ghulam Mustafa Kaim; Ahmed, Naveed; Ishtiyaque, Muhammad

JSP-Journal of Surgery Pakistan International 2013; 18 (3): 131-134

Keywords: Fractures, Open; Fracture Fixation, Intramedullary; Disease Management; Femur

Abstract: To find out frequency of fracture healing with the use of interlocking intramedullary nailing in type-II open fracture shaft of femur. Descriptive case series. Orthopaedic Surgery, Unit I Civil Hospital, Karachi, from August 2009 to August 2010. Sixty-five patients who sustained type-II open fracture of shaft of femur, were selected. All patients underwent fracture stabilization by locking intramedullary nail. The main outcome measure was fracture healing [i.e. callus formation] on x-ray at six months of follow-up. The SPSS version 13 was applied used to analyze data. Majority of the patients [44.6%] were between 18-30 years of age. Males were affected more than females with male to female ratio of 4:1. Road traffic accidents were responsible for these fractures in 73.8% of cases. Healing [i.e. callus formation] was achieved in 61[93.8%] patients radiographically at the end of six-months. Mean time to union was 18.5 weeks. Intramedullary interlocking nail was safe and effective in the management of type-II open fractures of femur shaft with excellent healing rates.

Femur

surgery

Early results of femoral reconstruction with a tapered, cementless, modular stem.

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Jordan Medical Journal 2014; 48 (2): 81-92

Keywords: Arthroplasty, Replacement, Hip; Leg Length Inequality; Prospective Studies; Reconstructive Surgical Procedures

Abstract: The orthopedic surgeon is faced with various challenging problems on the femoral side while performing a revision total hip arthroplasty. Some of these challenges may arise acutely or even intra operatively with limited resources. The aim of this study is to evaluate clinical and radiological outcomes with a single revision modular system used for various indications, and to determine whether such a system achieved initial fixation, femoral offset restoration, stability, and leg length equalization. We prospectively followed 33 patients with 36 implants for various indications. Functional assessment was achieved using the Harris hip score [HHS]. Hip stability, Leg length discrepancy, stem fixation, and offset restoration were evaluated radiographically. Follow up ranged from 24-87 months. HHS increased from a preoperative mean of 22.1 to a mean of 71.6 postoperatively. The total number of patients who had dislocation is 5 [13.9%]. Three stems were re-revised [9%]. Subsidence of the femoral component was less than 5mm in 30 patients [83%]. Leg length discrepancy was corrected to within 5mm in 53% of patients. Offset restoration was achieved in 39% of patients. No fractures at the body to stem junction were seen at latest follow up. Modular femoral stems are useful to address hip stability, leg length equalization, offset restoration, and distal fixation when revising a failed femoral component in the presence of significant proximal femur bone loss. These stems provide good clinical outcome in a simple, uniform, reproducible way.

Fever of Unknown Origin

diagnosis

Utility of fluorodeoxyglucose positron emission tomography/computed tomography in patients with fever of unknown origin diagnosed as lymphoma.

Sheng, Zi Ke; Ye, Jin; Li, Jun Jie; Zhao, Kui; Sheng, Ji Fang

Fudan University - Huashan Hospital

Medical Principles and Practice 2014; 23 (5): 437-442

Keywords: Positron-Emission Tomography; Fluorodeoxyglucose F18; Tomography, X-Ray Computed; Lymphoma; Retrospective Studies

Abstract: To assess the efficacy of fluorine-18 fluorodeoxyglucose positron emission tomography [[18] F-FDG PET]/computed tomography [CT] in the diagnosis of patients with fever of unknown origin [FUO], who were finally diagnosed as lymphoma. A retrospective study was performed in the First Affiliated Hospital, School of Medicine of Zhejiang University, China, from March 2009 to March 2012. The PET/CT images of consecutive patients with FUO were analyzed. Within 1 week of PET/CT scanning, additional histological tests were also performed if clinically needed. A total of 73 consecutive patients were included. Of these, 34 [47%] had a PET/CT finding suggestive of the presence of lymphoma and 29 [85%] had a diagnosis of confirmed lymphoma; 39 [53%] had a PET/CT result revealing the absence of lymphoma and 4 [10%] were diagnosed by biopsy as having lymphoma. The most frequent lymphoma diagnosis was peripheral T cell lymphoma [n = 16; 55%], followed by diffuse large B cell lymphoma [n = 9; 31%]. The accuracy of PET/CT was 88%. In this study, PET/CT had high diagnostic accuracy in patients with FUO resulting from lymphoma, which indicated that PET/CT scanning was a valuable diagnostic tool for these groups of patients with FUO.

Fibroma, Ossifying

diagnosis

Peripheral ossifying fibroma - a case report.

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Faculty Of Dental Science

Pakistan Oral and Dental Journal 2014; 34 (3): 491-493

Keywords: Bone Neoplasms; Mandible; Gingiva

Abstract: Gingiva is often the site for localized growth that are considered to be reactive rather than neoplastic in nature. Because the clinical appearance of these lesions can be remarkably similar, classification is based on the distinct histologic differences. Peripheral Ossifying Fibroma is one such reactive lesion, for which the etiology is unclear. POFs are frequently associated with irritants like calculus, plaque, dental appliances, ill fitting crowns and rough restorations. There is a definite female predilection, with a peak incidence in young and teenaged females. A clinical report of a 14 year old girl with a POF in the mandibular gingiva is presented.

Fish Oils

Dietary fish oil can change sperm parameters and fatty acid profiles of ram sperm during oil consumption period and after removal of oil source.

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Cell Journal [Yakhteh] 2014; 16 (3): 289-298

Keywords: Spermatozoa; Fatty Acids

Abstract: The effects of dietary fish oil on semen quality and sperm fatty acid profiles during consumption of n-3 fatty acids as well as the persistency of fatty acids in ram's sperm after removing dietary oil from the diet were investigated. In this experimental study, we randomly assigned 9 Zandi rams to two groups [isoenergetic and isonitrogenous diets]: control [CTR; n=5] and fish oil [FO; n=4] for 70 days with a constant level of vitamin E in both groups. Semen was collected at the first week and at the last week of the feeding period [phase 1]. After the feeding period, all rams were fed a conventional diet and semen samples were collected one and two months after removal of FO [phase 2]. The sperm parameters and fatty acid profiles were measured by computer assisted semen analyzer [CASA] and gas chromatography [GC], respectively. The completely randomized design was used and data were analyzed with SPSS version 16. Dietary FO had significant positive effects on all sperm quality and quantity parameters compared with the CTR during the feeding period [p<0.05]. The positive effects of FO on sperm concentration and total sperm output were observed at one and two months after removal of FO [p<0.05], whereas other sperm parameters were unaffected. Before feeding, C14 [myristic acid], C16 [palmitic acid], C18 [stearic acid], C18:1 [oleic acid] and C22:6 [docosahexaenoic acid: DHA] were the primary sperm FA. FO in the diet increased sperm DHA, C14: 0 and C18:0 during the feeding period [p<0.05]. The present study showed not only manipulation of ram sperm fatty acid profiles by dietary FO and sperm parameters during the feeding period, but also the persistency of unique effects of dietary omega-3 fatty acids up to two months following its removal from the diet. Also, we recommend that sperm fatty acid profiles should be comprehensively analyzed and monitored.

Fluid Therapy

Goal-directed fluid therapy based on stroke volume variations improves fluid management and gastrointestinal perfusion in patients undergoing major orthopedic surgery.

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Medical Principles and Practice 2014; 23 (5): 413-420

Keywords: Stroke Volume; Splanchnic Circulation; Orthopedics; Postoperative Complications

Abstract: To evaluate the influence of stroke volume variation [SVV]-based goal-directed therapy [GDT] on splanchnic organ functions and postoperative complications in orthopedic patients. Eighty patients scheduled for major orthopedic surgery under general anesthesia were randomly allocated to one of two equal groups to receive either intraoperative volume therapy guided by SVV [GDT] or standard fluid management [control]. In the SVV group, patients received colloid boluses of 4 ml/kg to maintain an SVV <10% when in the supine position or an SVV <14% if prone. In the control group, fluids were given to maintain a mean arterial pressure >65 mm Hg, a heart rate <100 bpm, a central venous pressure of 8-14 mm Hg, and a urine output >0.5 ml/kg/h. Intraoperative organ perfusion, hemodynamic data, hospitalization, postoperative complications, and mortality were recorded. The heart rate at the end of surgery was significantly lower [p < 0.05], there were fewer hypotensive episodes [p < 0.05], the arterial and gastric intramucosal pH were higher [p < 0.05 for both], the gastric intramucosal PCO2 was lower [p < 0.05], the intraoperative infused colloids and the total infused volume were lower [p < 0.05 for both], and the postoperative time to flatus was shorter [p < 0.05] in the GDT group than in the control group. No differences in the length of hospital stay, complications, or mortality were found between the groups. SVV-based GDT during major orthopedic surgery reduced the volume of the required intraoperative infused fluids, maintained intraoperative hemodynamic stability, and improved the perioperative gastrointestinal function.

Fluorosis, Dental

therapy

Management of moderate fluorosis: a conservative approach.

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Smile Dental Journal 2014; 9 (2): 30-34

Keywords: Disease Management; Enamel Microabrasion; Tooth Bleaching; Tooth Bleaching Agents

Abstract: The unaesthetic appearance of the anterior teeth affected by dental fluorosis represents the chief complaint of patients and request for aesthetic treatment. This article describes a conservative technique to treat moderate cases of enamel fluorosis with microabrasion followed by home whitening treatment with carbamide peroxide gel. A microabrasion technique is shown to be a proven method for removing enamel discoloration defects from teeth, while dental whitening is useful for obtaining a uniform tooth shade. The association of these techniques presented excellent results and patients were satisfied. Both techniques are painless, fast and easy to perform, in addition to preserving the dental structure. Treatment showed immediate and permanent results.

Food

Food faddism; its determinants and health outcomes among residents of Taluka Latifabad, Hyderabad.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 691-696

Keywords: Risk Factors; Health Status; Cross-Sectional Studies; Infant, Low Birth Weight; Malnutrition

Abstract: Food faddism may be labeled as an ice-berg phenomenon occurring in our population; still there is dearth of research work on this issue; therefore we conducted a baseline study on this problem of public health importance in order to explore hidden facts about this practice. [1] To assess the food faddism practices among residents of Taluka Latifabad, Hyderabad. [2] To determine the risk factors associated with food faddism. [3] To determine the association of food faddism to health status of the participants. Cross sectional study. A community based study of two months' duration [from 1st May-30th June 2013] conducted in Taluka Latifabad units 4, 7 and 12, district Hyderabad. 450 subjects were selected by convenience type of sampling and were registered for the study. The sample comprised of 200 women of child bearing age and 250 children of age \leq 5 years. The frequency of food faddism was found to be 58% i. e. 71.5% among women of child bearing age and 47.2% among children at age \leq 5years. Living in joint families and being illiterate were associated factors for practice of food faddism [p=0.01] and [p=0.04] respectively. Majority [79.31%] of respondents got advice for this practice from family elders; while 36.78% got such advice from family physicians. Being malnourished and borne as low birth weight were its major health outcomes among children. Food faddism intangibly affects women and children's health; therefore elders of the families as well as family physicians should be taken on-board to control this dietary malpractice in the communities.

Foreign Bodies

Management of oesophageal foreign bodies.

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Quaid i Azam Medical College - Ear, Nose and Throat Department

Journal of Taibah University Medical Sciences 2014; 9 (3): 206-208

Keywords: Esophagus; Disease Management; Social Class; Cross-Sectional Studies; Questionnaires

Abstract: The aim of the study was to evaluate the management of foreign bodies in the oesophagus and to determine the association with socioeconomic status. This cross-sectional analytical study was carried out in the Department of Ear, Nose and Throat and head and neck surgery of Bahawal Victoria Hospital affiliated with Quaid-i-Azam Medical College, Bahawalpur, Pakistan, between December 2012 and May 2013. The medical records of 34 consecutive cases of foreign body ingestion were searched, and the data were recorded on a questionnaire prepared for this purpose. The average age of the patients was 10.38 years; 29 cases [85.2%] were in children under 12 years. There were 18 females [52.9%] and 16 males [47.1%]. Thirty patients [88%] presented with a history of dysphagia, and 25 [73.6%] had vomiting. The site of impaction was the post-cricoid region in 22 patients [66%], the lower oesophagus in 5 [15%], the mid-oesophagus in 4 [13%], the posterior pharyngeal wall in 1 [3%] and the pyriform fossa in 1 patient [3%]. Coins were the most common foreign body [61.8%]. Socioeconomic analysis showed that 18 patients [52.9%] were in the low socioeconomic class, 12 [35.3%] in the middle class and 4 [11.8%] in the upper class. The presence of a foreign body in the oesophagus is a serious condition, and early removal is recommended. Foreign body lodgement is commoner among poor families.

Fracture Fixation, Internal

Functional outcome of the minimally invasive plate osteosynthesis for the supracondylar fractures of femur using dynamic condylar screw.

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JSP-Journal of Surgery Pakistan International 2013; 18 (3): 114-117

Keywords: Femoral Fractures; Bone Screws; Bone Plates

Abstract: To assess the functional outcomes of minimally invasive plate osteosynthesis [MIPO] for the extra-articular and undisplaced intra-articular supracondylar fractures of femur using dynamic condylar screw [DCS]. Descriptive case series. Department of Orthopaedic Surgery, Jinnah Postgraduate Medical Centre Karachi, from April 2009 to October 2011. Patients were enrolled from accident and emergency and OPD. OPD follow-ups were carried out at 2nd, 6th, 12th, 18th, and 24th weeks, then every 2nd month for the assessment of rate of union and range of motion of knee joint. A total of 83 patients were included. There were 55 males and 28 females. Male to female ratio was 1.96:1. Patients were 25-50 year of age. Seventy four [89.2%] of the injuries were caused by road traffic accident and 9 [10.8%] due to fall from height. Forty six [55.4%] patients had fractures on right side and 37 [44.6%] on left side. Radiological union was achieved in 79 [95.2%] patients at an average period of 19.05 weeks. The radiological bony union was achieved in 16-18 weeks in 25[30.1%] patients. Four patients developed nonunion for which bone graft from iliac crest was placed after 24 weeks. Two achieved union in one year follow up while two were lost to follow up. At end of one year, forty-three [51.8%] cases had knee flexion from zero to 90° - 120°, 25 [30.1%] cases had knee flexion of > 120° and remaining 15 [18.1%] cases had knee flexion of <90°. At the end of one year satisfactory [knee motion > 90°] functional outcome as achieved in 68 [81.9%] cases. High rates of both radiological union [95.2%] and satisfactory [knee motion > 90°] functional outcome [81.9%] were achieved in large number of cases.

Fungi

Fungi biodiversity in the freshwater environment of Iraq.

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Assiut University Bulletin for Environmental Researches 2013; 16 (1): 1-11

Keywords: Fresh Water; Seasons; Biodiversity

Abstract: The presence of aquatic fungi was studied in the Tigris river in Baghdad in two stations, The first in the surrounding area before Al-Kadhimiya City and the second at Al-Jadriyah bridge, in the winter and summer seasons during 2009-2010 and by means of 14 samples of the river, since been isolate and personification 21 species belonging to eight genera, five genera belong to Oomycetes and three types of fungi to Chytridiomycetes. The fungus *Saprolegnia* register the highest emergence of 50% followed by fungus *Achlya* 40%, while *Dictyuchus* and *Allomyces* recorded the lowest emergence 0.5%.

Gastroesophageal Reflux

Characteristics of symptom presentation and risk factors in patients with erosive esophagitis and nonerosive reflux disease.

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Medical Principles and Practice 2014; 23 (5): 460-464

Keywords: Esophagitis; Esophagitis, Peptic; Risk Factors; Questionnaires; Gender Identity; Quality of Life

Abstract: The aim of this study was to investigate the effect of gender on symptom presentation and quality of life of patients with erosive esophagitis [EE] and nonerosive reflux disorder [NERD]. Medical records from patients with gastroesophageal reflux disease [GERD] between January and December 2009 were reviewed. The patients were assigned to either the EE or the NERD group. The general demographic data, the modified Chinese GERDQ scores and the Short Form [SF]-36 life quality questionnaire scores of the two groups of patients were compared. Of the 261 patients, 87 [33.3%], 86 [33.0%] and 88 [33.7%] patients were classified into the EE, the NERD and the control groups, respectively. The patients in the EE group were significantly older [48.94 +/- 17.38 vs. 43.34 +/- 12.67 years], were predominately male [58.6 vs. 39.5%], had more frequently hiatal hernia [34.5 vs 17.4%], had a higher body weight [67.57 +/- 15.13 vs. 61.06 +/- 11.08 kg] and a higher body mass index [24.09 +/- 4.61 vs. 22.68 +/- 3.12] than those in the NERD group. The GERD-specific symptom scores and the general life quality scores of the EE and the NERD groups were similar, and both groups had lower life quality scores than the control group did. The female patients with NERD had a higher frequency of GERD symptoms and lower quality of life scores. Gender had no effect on symptom scores or life quality scores in the EE group. The GERD-specific symptom severity and general quality of life scores of the EE and the NERD patients were similar. Gender had a great influence on symptom presentation and quality of life in patients with NERD, but not in those with EE.

Genes, erbB-1

Quantitative analysis of ErbB1 and ErbB2 genes amplification by a high performance liquid chromatography.

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AJMB-Avicenna Journal of Medical Biotechnology 2014; 6 (4): 228-237

Keywords: Genes, erbB-2; Gene Amplification; Chromatography, High Pressure Liquid; Real-Time Polymerase Chain Reaction; Polymerase Chain Reaction; Breast Neoplasms

Abstract: Genes for human epidermal growth factor receptors B1 [ErbB1] and B2 [ErbB2] were amplified in breast and ovarian cancers. Both of them were associated with aggressive disease and worse prognosis. The ErbB1 or ErbB2 status of a tumor may provide an indication of the response to ErbB1 and ErbB2 -targeted therapies. For accurate and rapid assessment of amplification of ErbB1 and ErbB2 oncogenes, a High Performance Liquid Chromatography [HPLC] method was developed in this study. DNA was extracted from 30 primary breast tumors and 20 blood samples of healthy donors. ErbB1 and ErbB2 genes along with a reference gene were co-amplified by Polymerase Chain Reaction [PCR]. The PCR products were separated and quantified using an anion- exchange column within 30 min and in a single step. Optimum resolution was obtained when a sodium chloride gradient and a column temperature of 35°C were used. The results of HPLC analysis of ErbB1 and ErbB2 PCR products were compared with real time PCR method as a gold standard test for 7 tumor samples. The proposed HPLC method was confirmed by real time PCR method. Twenty two and ten of the specimens in our breast cancer cohort showed more than a two-fold amplification of ErbB2 and ErbB1 oncogenes, respectively. Our results were confirmed by real time PCR and showed that HPLC method is a specific, cheap and clinically applicable analytical approach for assessment of ErbB1 and ErbB2 statuses in breast tumors.

Glaucoma, Open-Angle

drug therapy

Primary open angle glaucoma; comparison of the ocular hypotensive efficacy of 0.004% travoprost and 0.2% brimonidine.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 788-793

Keywords: Cloprostenol-analogs and derivatives; Quinoxalines; Ophthalmic Solutions

Abstract: Glaucoma constitutes a group of ocular diseases characterized by optic nerve damage and loss of visual field, usually associated with elevated IOP. Although the elevation of IOP beyond normal values is not necessary for the occurrence of glaucomatous damage, it is currently thought to be a major risk factor. Glaucoma is one of principal causes of blindness in the world. The primary aim of POAG treatment is to prevent functional visual impairment with in patient's life time by slowing the rate of ganglion cell loss closer to that of normal population [approximately 5000/year]. Medications for glaucoma have changed notably over the past 2 decades with increase in efficacy, better dosing regimens, improvement in safety, and reduction in side-effects. Purpose of study: The purpose of this study is to compare the IOP lowering efficacy of the [Travatan] Travoprost 0.004%ophthalmic solution and [Alphagan] brimonidine 0.2% ophthalmic solution in primary open angle glaucoma. The duration of study was six months from June 2009 to November 2009. The study was conducted on 60 patients with primary open angle glaucoma [POAG] divided into two groups randomly. Each patient was examined regarding visual acuity, refraction, slit lamp biomicroscopy, IOP with Goldmann Applanation Tonometer, Gonioscopy, funduscopy and Perimetry. GROUP A had 30 patients with 60 eyes there were 25 male [83.33%] patients and five females [16.67%] patients. The eye drops travoprost 0.004% one drop at night was used. The average IOP reduction was 7mmhg from base line, GROUP B also had 30 patients with 60 eyes there were 27 male [90%] and 3 females [10%]. The eye drops brimonidine tartarate 0.2% was instilled twice a day one drop in the morning and one drop in the evening. The average IOP reduction was 5.5mmhg from base line. In conclusion both latanoprost and brimonidine reduce IOP effectively in POAG. Mean IOP lowering is better with latanoprost.

Glioblastoma

Evaluation of the combined effects of hyperthermia, cobalt-60 gamma rays and IUdR on cultured glioblastoma spheroid cells and dosimetry using TLD-100.

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Cell Journal [Yakhteh] 2014; 16 (3): 335-342

Keywords: Hyperthermia, Induced; Cobalt Radioisotopes; Gamma Rays; Idoxuridine; Spheroids, Cellular; Tumor Cells, Cultured; Comet Assay; Radiation

Abstract: In radiation treatment, the irradiation which is effective enough to control the tumors far exceeds normal-tissues tolerance. Thus to avoid such unfavourable outcomes, some methods sensitizing the tumor cells to radiation are used. Iododeoxyuridine [IUdR] is a halogenated thymidine analogue that known to be effective as a radiosensitizer in human cancer therapy. Improving the potential efficacy of radiation therapy after combining to hyperthermia depends on the magnitude of the differential sensitization of the hyperthermic effects or on the differential cytotoxicity of the radiation effects on the tumor cells. In this study, we evaluated the combined effects of IUdR, hyperthermia and gamma rays of ⁶⁰Co on human glioblastoma spheroids culture. In this experimental study, the cultured spheroids with 100microm diameter were treated by 1 microM IUdR, 43°C hyperthermia for an hour and 2 Gy gamma rays, respectively. The DNA damages induced in cells were compared using alkaline comet assay method, and dosimetry was then performed by TLD-100. Comet scores were calculated as mean +/- standard error of mean [SEM] using one-way ANOVA. Comparison of DNA damages induced by IUdR and hyperthermia + gamma treatment showed 2.67- and 1.92-fold enhancement, respectively, as compared to the damages induced by radiation alone or radiation combined IUdR. Dosimetry results showed the accurate dose delivered to cells. Analysis of the comet tail moments of spheroids showed that the radiation treatments combined with hyperthermia and IUdR caused significant radiosensitization when compared to related results of irradiation alone or of irradiation with IUdR. These results suggest a potential clinical advantage of combining radiation with hyperthermia and indicate effectiveness of hyperthermia treatment in inducing cytotoxicity of tumor cells.

Glossitis, Benign Migratory

diagnosis

Geographic tongue: case report and literature review.

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Pakistan Oral and Dental Journal 2014; 34 (3): 409-410

Keywords: Glossitis, Benign Migratory-etiology; Glossitis, Benign Migratory-therapy; Review Literature as Topic

Abstract: Geographic tongue [Benign migratory glossitis, erythema migrans] is an asymptomatic inflammatory disorder of tongue of unknown etiology. This disease is characterized by erythematous areas showing raised greyish or white circinate lines or bands with irregular pattern on the dorsal surface of the tongue and depapillation. The objective in presenting the case report and literature review is to discuss the clinical presentation, associated causative factors and management strategies of geographic tongue.

Glycoproteins

drug effects

The impact of morus alba leaves extract on neurotransmitters and apoptosis experimental diabetic rats.

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EJB-Egyptian Journal of Biochemistry and Molecular Biology [The] 2013;31 (1): 35-48

Keywords: Plant Proteins; Plant Extracts-therapeutic use; Plant Leaves; Neurotransmitter Agents; Apoptosis; Diabetes Mellitus, Experimental; Rats

Abstract: Diabetes mellitus is one of the most common endocrine diseases. Researchers all over the world are exploring herbal supplements to control diabetes and its complications. This study evaluated the antidiabetic action of Morns alba leaves extract through its effect on hyperglycaemia, DNA damage and apoptosis of brain cells due to oxidative stress in diabetes. Moreover, evaluate the effect of diabetes on neurotransmitters levels of streptozotocin-induced diabetic rats. Application of crude water extract of Mous alba resulted in amelioration of the alterations of serum glucose as well as neurotransmitters including acetylcholine, nor-adrenaline, serotonin, histamine, dopamine, and gamma amino butyric acid. Furthermore, Morus alba leaves leaf extract display hypoglycemic effect, diminish DNA damage and apoptosis of brain cells of diabetic rats. In conclusion ,our results suggest that The protective effect of Morus alba leaves extract could be attributed to the hypoglycaemic, and antioxidative potential of flavonoids. the major components of the plant extract.

Goiter

surgery

Thyroidectomy of massive goiter always a surgical challenge.

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JSP-Journal of Surgery Pakistan International 2013; 18 (3): 151-153

Keywords: Thyroidectomy

Abstract: Multinodular goiter is a relatively common thyroid disorder with a marked female preponderance. Most of these goiters weigh less than 100 grams with a few especially in endemic areas as marked by WHO, weighing approximately 200-250 grams and very rarely weighing more than 450 grams pose a challenge for an operating surgeon. Herein we report removal of giant goiter in a 60 year old female.

Gonorrhoea

transmission

Orally and sexually transmitted gonorrhoea.

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Pakistan Oral and Dental Journal 2014; 34 (3): 503-506

Keywords: Sexually Transmitted Diseases; Sexual Behavior; Tertiary Care Centers; Knowledge; Pelvic Inflammatory Disease

Abstract: Gonorrhoea can be transmitted by oral sex and is known as pharyngeal gonorrhoea and appears as pharyngitis. Patients with symptomatic gonorrhoea infection or other STDs are commonly seen in outpatient departments. Majority of them seek treatment without having adequate understanding regarding the nature of their condition. It is important for a healthy community that the members have information regarding STDs, their spread and preventive measure. The study was conducted during the time period of six months extending from August 2013-January 2014. The data was collected from four tertiary care hospital after obtaining oral and written consent. Patients attending Urology outpatient department with a history of STD were included in the study. Overall 410 patients participated in the study with a response rate of 82%. 315[76.8%] males and 95[23.2%] female participants. 37.8% of females and 36.5 of males with total 36.8% of participants had knowledge that PID is a complication of Gonorrhoea. In total 16.3% of the participants knew the correct mode of transmission of Gonorrhoea with 22% females and 14.6% males with Odd ratio F/M 1.5. Regarding the best preventive measure for STD, 60.7% considers avoiding multiple sexual partners and engage in spousal relationship [53.7 and 62.8% of females and male respectively, Odds ratio F/M 0.85] is the best way followed by using condoms [20.7% of total participant with an odds F/M of 1.54]. The knowledge in patients regarding Gonorrhoea is scant hence it is essential to counter educational needs of the population regarding STD in effective and timely manner.

Granulosa Cells

cytology

The relationship between follicular fluid androgen concentrations and its receptor expression in granulosa cells from human follicles.

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EJB-Egyptian Journal of Biochemistry and Molecular Biology [The] 2013; 31 (1): 65-84

Keywords: Follicular Fluid-chemistry; Androgens; Receptors, Androgen; Chromatography, High Performance Liquid-methods

Abstract: Polycystic ovary syndrome [PCOS] is the most common cause of oligoanovulation, infertility, and hyperandrogenism in women and characterized by abnormal folliculogenesis. The androgen receptor [AR] is present in the ovary in almost all stages of folliculogenesis and has been suggested to play a proliferative role for follicular development but the role of androgen signaling through the AR in the pathophysiology of PCOS is still unclear. The aim of this study was to explore the role of androgens during folliculogenesis by determining AR mRNA expression in granulosa cell [GC] of human antral follicles in PCOS patients and controls and correlate that

with the hormonal characteristics of the corresponding follicular fluid. The current study included 40 patients with PCOS and 30 women with normal ovulatory function attending the Fertility Unit in Mansoura University Hospital. The follicular fluid [FF] levels of sex steroids were assayed via high performance liquid chromatography. RNA was extracted from GC of all cases and controls. cDNA and amplification of a gene region from 1648 to 2055 bp of human androgen receptor was carried out by one step RT-PCR. The PCR product size of 400 bp was electrophoresed on 1% agarose gel. The results revealed that the F F levels of testosterone, androstenedione, 3 α -androstane-17 β -diol, 17 OH progesterone and progesterone were significantly higher in patients with PCO than the control group. Furthermore, there was a significant increase in AR expression in patients with PCO than the control group. It could be concluded that androgen signaling through AR plays an important role in GC development and is required for the optimal performance of female reproduction, but that excessive androgen signaling might lead to abnormal follicular growth seen in polycystic ovary syndrome.

Health Knowledge, Attitudes, Practice

Knowledge, attitudes and practice with regard to the articles of the framework convention on tobacco control among Egyptian adults.

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Journal of Taibah University Medical Sciences 2014; 9 (3): 228-235

Keywords: Tobacco; Smoking; Adult; Cross-Sectional Studies

Abstract: Egypt signed the Framework Convention on Tobacco Control [FCTC] in 2003, and it was ratified by the Egyptian Parliament in February 2005. Although most of the articles of the FCTC are reflected in Egyptian law and regulations, enforcement is rare for many reasons. The aim of the study was to evaluate knowledge, attitudes and practice toward the FCTC among Egyptian adults. Cross-sectional survey with an interview questionnaire about knowledge, attitudes and practice as regards the FCTC among 2941 people from them 1584 smokers [97% men, 3% women] in two governorates of Egypt. The prevalence of smoking varied, being higher among men [97%] than women [3%] and was higher among adults under the age of 55 years. Most smokers [74%] knew that smoking by children and adolescents was not allowed, and that tobacco contains tar and nicotine, which are hazardous to health. Half of the smokers were unaware of the presence of warning signs on boxes. Most smokers knew that advertising of cigarettes is not allowed [66.8%], the media do not advocate for smoking prevention [67.8%], not enough information is given about its hazards [64.3%], and there is no media campaign against smoking [83.9%]. Most smokers [62.2%] considered that there is no active strategy against smoking, and 77.3% said that there was no Government policy against smoking. Half the smokers [50.4%] thought that people in the community were not interested in smoking prevention, and medical personnel should help; 70.7% concluded that little was being done to prevent smoking. The data from this study could be used as a baseline for future evaluations of tobacco control programmes implemented by the Ministry of Health of Egypt.

Helicobacter pylori

Helicobacter pylori; patients with functional dyspepsia.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 679-683

Keywords: Dyspepsia; Helicobacter Infections

Abstract: To determine the frequency of H. pylori in patients with functional dyspepsia. This six months multidisciplinary study was conducted at tertiary care teaching hospital as well as at private hospital Hyderabad from February 2012 to July 2012. All patients presented with history of dyspepsia were admitted and evaluated for functional dyspepsia by performing endoscopy. After confirmation of functional dyspepsia the subjects were further evaluated for H. pylori infection by taking the biopsy specimen, label it and sent to laboratory for histopathological examination. The data was entered, saved and analyzed in SPSS version 11.00. During six month study period, total 100 patients with functional dyspepsia were recruited. Majority of patients were from low socioeconomic class [78%], have history of spicy food intake [68%] and epigastric pain [94%]. The associated symptoms observed were nausea and vomiting [87%], anorexia [88%], early satiety [84%] and regurgitation [84%]. The mean +/- SD for age of patients with functional dyspepsia was 37.95 +/- 10.85. The mean age +/- SD of H. pylori identified patients was 35.81 +/- 7.72. Majority of the subjects was 30-40 years of age and the male population predominant 64% [p-value 0.02, statistically significant]. The H. pylori was identified in 62% of patients, of which 35 [56.5%] were males and 27 [43.5%] were females [p-value 0.04, statistically significant] respectively. The H. pylori play a significant role in causing symptoms of functional dyspepsia.

Hepacivirus

Diversity of hepatitis C virus; analysis of glycoproteins E1 and E2.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 723-727

Keywords: Viral Envelope Proteins; Glycoproteins; Polymerase Chain Reaction

Abstract: [1]To understand the diversity in HCV glycoprotein E1 and E2 sequences at different stages of infection. [2] Method widely used in evolutionary studies of HIV, as a new gold standard in HCV research. Department of Biochemistry Sir Syed Institute st of Medical Sciences Karachi. Period. 1 Jan 2012 to 31 Dec 2012. Experimental analysis. The samples derived from a xenomouse model of transmission and several samples from naturally occurring transmission as well as sequences from acute stage of infection. we utilized single genome amplification [SGA] technique to recover full- length E1 sequences. SGA of full-length E1 glycoprotein sequences, followed by direct sequencing minimizes in vitro generated artifacts and experimental biases associated with the standard bulk amplification and cloning approach, giving an accurate representation of investigated intrahost population. Analysis and Comparative analyses of sequences derived from three different settings were performed, in conjunction with a range of phylogenetic tests. As full-length E1 sequences were utilised. The role of glycoprotein E1 and E2 during the infection of HCV was Known. The new gold standard in HCV research prove to be of great importance.

Hepatitis B

epidemiology

Seroprevalence of HBsAg [HBS] and anti-HCV; in general population of Baluchistan. During 2012 and 2013. An awareness study.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 766-770

Keywords: Hepatitis C-epidemiology; Seroepidemiologic Studies; Hepatitis B Surface Antigens; Hepatitis C Antibodies; Awareness; Prevalence; Hepatitis B virus; Hepacivirus

Abstract: Hepatitis is the inflammation of liver caused by infectious and noninfectious agents. Hepatitis B and C are inflammations of liver caused by the viruses which are the major public health problems worldwide and the incidence is even more in our country. Objective of the study was, 1]. To estimate the prevalence of hepatitis B and hepatitis C viruses infected persons among the general population coming to BMC Hospital. 2]. To point out the more affected area of Baluchistan. 3]. To produce awareness in the people. 4]. To bring this issue in Government notice. The data was obtained from the patients of BMCH Quetta in which one step test kits were used first and the positive cases were confirmed by ELISA. Out of 46319 samples tested [both indoor and outdoor patients], 3078 [6.64%] were positive. From overall positive samples 1631[3.52%] were HBs positive and 1447[3.12] samples were positive for HCV and 2 patients were positive for both HBs Ag and anti HCV. Prevalence of Hepatitis B is more comparing to Hepatitis C in this province. Prevalence of both Hepatitis B and Hepatitis C was high in Naseerabad district of Baluchistan Great care should be exercised during shaving, dental treatment, surgical procedures and blood transfusions. Policy message: - Media should be used by National Hepatitis Control Programme of Pakistan to educate the public about hazards of unscreened blood transfusion. Blood screening for Hepatitis B and C infections should be made mandatory at all blood banks.

Hepatitis C

epidemiology

Seroprevalence of hepatitis C; among healthy blood donors in blood banks of Khyber Pakhtunkhwa.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 672-678

Keywords: Seroepidemiologic Studies; Blood Donors; Blood Banks; Hepatitis C Antibodies

Abstract: To find out seroprevalence of Hepatitis C among healthy blood donors in Khyber PakhtunKhw. Descriptive study. From 1st July 2008 to March, 2009. The study was conducted by department of Community

Medicine KMU Institute of Medical Sciences, Kohat. All healthy blood donors who reported for bleeding in blood banks of Khyber Pakhtunkhwa were screened for Hepatitis C antibodies. The study was conducted in seventeen [17] districts and three [3] teaching hospitals. The kits used were rapid immunochromatography kits. The kits were provided by safe blood transfusion project of Khyber Pakhtunkhwa. A total of 61170 healthy blood donors were screened during a period of 9 months. Out of which 1341 [2.19%] were positive for hepatitis antibody. Hepatitis C virus infection has become a major health problem in Khyber Pakhtunkhwa. Blood is one of the main source of infection. Strict monitoring of blood is necessary before transfusion. To limit and prevent the spread of Hepatitis C, public awareness by print, social and electronic media is the need of time. Resource allocation is necessary for amelioration of the weak infrastructure and ill-equipped blood banks and training of the staff.

Hernia, Inguinal

Early morbidity of open tension free mesh repair of inguinal hernia.

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JSP-Journal of Surgery Pakistan International 2013; 18 (3): 118-120

Keywords: Surgical Mesh; Morbidity; Polypropylenes

Abstract: To determine the early morbidity of open tension free mesh repair of inguinal hernia. Descriptive case series. Department of Surgery Abbasi Shaheed hospital Karachi, from September 2007 to July 2009. Patients with inguinal hernia were selected for the study. Open tension free repair was done using polypropylene mesh. After surgery, wound infection, seroma, hematoma, testicular atrophy and early recurrence were noted. This study included 180 patients diagnosed with inguinal hernia. All the study subjects were males. Their mean age was 48.38 +/- 15.59 year [range 22 - 76 year]. Superficial wound infection occurred in 6 [3.3%] patients and numbness in 3 [1.7%] patients. The open tension-free repair of inguinal hernias using propylene mesh was a safe approach with overall early morbidity of only 5%.

Hip

pathology

Hip disarticulation, report of 3 cases and literature review.

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Jordan Medical Journal 2014; 48 (2): 132-137

Keywords: Disarticulation; Review Literature as Topic

Abstract: Hip disarticulation is a rarely performed procedure and few surgeons are expert in doing it, the operation may be needed urgently for a sick unstable patient. We present three cases of hip disarticulation for severe infection, vascular disease and chondrosarcoma in which we were involved over a short period of time and a literature review to discuss the success and mortality of this procedure. Hip disarticulation accounts for 0.5% of lower extremity amputations and mostly performed for malignant musculoskeletal tumors, limb ischemia, infections and trauma. It has a poor functional outcome but it may be the only available option to cure the patient or save his life. Hip Disarticulation is a major complex surgery and should be part of the armamentarium of the orthopaedic surgeon who is treating severe lower limb infections, dealing with lower limb sarcomas and peripheral vascular diseases. It is a major procedure for the patient. It should not be undertaken lightly and patient and surgeon need to know the likely outcome.

Hospital Information Systems

[Usability evaluation of hospital information systems based on isometric standard from the viewpoint of users in education and treatment centers affiliated to Qom university of medical sciences, Iran]

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Qom University of Medical Sciences Journal 2014; 8 (4): 58-63

Keywords: Cross-Sectional Studies; Questionnaires; Information Systems

Abstract: Evaluation has an important role in software development. Quality is considered in the evaluation of information systems, which depends on usability, availability, validity, compatibility, and response time. This research was performed with the aim of determining the usability of hospital information systems according to the 7 principles of isometric 9241, part 10. This study was carried out as a descriptive cross-sectional study on a sample

of hospital information systems' users in Education and Treatment Centers affiliated to Qom University of Medical Sciences. The standard questionnaire of isometric 9241, part 10, consisting of 75 questions was used to assess the usability of hospital information systems. In this questionnaire, 7 principles were assessed, including suitability for the tasks, self-descriptiveness, controllability, error tolerance, suitability for personalization, suitability for learning, and conformity with user's expectations. Descriptive tests [mean, percentage, and frequency] were used for data analysis and evaluation of specified criteria. In this evaluation, the mean score of suitability for the task was 2.81 [the highest score], self-descriptiveness 2.51, controllability 2.63, conformity with user expectations 2.65, error tolerance 2.61, suitability for personalization 2.39 [the lowest score], and suitability for learning 2.70. Regarding the results of this study and previous researches, developers of hospital information systems in Iran should pay adequate attention to user's needs when designing and developing the software.

Humeral Fractures

therapy

Outcome of close reduction and percutaneous pinning in displaced pediatric supracondylar fracture of humerus assessed by Flynn's criteria.

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JSP-Journal of Surgery Pakistan International 2013; 18 (3): 121-125

Keywords: Bone Nails; Fractures, Closed; Pediatrics; Treatment Outcome; Humerus

Abstract: To evaluate the adequacy of closed reduction and percutaneous Kirschner [K]-wire fixation technique in treatment of unstable type II and III supracondylar humeral fractures in children by Flynn's Criteria. A descriptive study. Combined Military Hospital / Military Hospital Rawalpindi, from August 2008 to September 2012 Children with displaced type II and III supracondylar fractures of the humerus who were managed with closed reduction and percutaneous K-wire fixation were included. All patients were operated upon within three days after trauma. Patients were followed up for a mean period of 4 +/- 1 months and assessed radiologically for union. Functionally and cosmetically they were assessed according to Flynn's criteria. Eighty nine children with displaced type II and III supracondylar fractures of the humerus were managed with closed reduction and percutaneous K-wire fixation. There were 67 boys and 22 girls with a mean age of 7.2 +/- 2.07 year. All patients achieved solid union. Functionally, 94.4% patients achieved excellent and good while 4.5% had satisfactory results. Cosmetically 86.5% of patients had excellent and good results, 5.6% satisfactory and 7.9% had unsatisfactory results. The most frequent complication was minor pin tract infection in seven patients. Two patients had neuropaxia of ulnar nerve after pinning. The obtained results and few complications noted suggest that the technique is a suitable treatment option for displaced type II and III supracondylar fractures in children, if referred early.

Radiological evaluation of the stability of crossed-pins versus lateral-pins fixation in displaced supracondylar fractures of humerus.

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JSP-Journal of Surgery Pakistan International 2013; 18 (3): 126-130

Keywords: Humerus; Bone Nails; Radiology; Fracture Fixation; Fractures, Closed

Abstract: To compare the radiological evaluation of stability of closed reduction of supracondylar fractures of humerus treated by percutaneous two-crossed-pin fixation and 2-lateral pin fixation. Randomized controlled trial. Orthopedic Unit Hayatabad Medical Complex Peshawar, from January 2008 to July 2009. Fifty patients with displaced supracondylar fracture of humerus presented between ages 1-12 year were randomly allocated in two groups of 25 patients each and were subjected to crossed-pin fixation and lateral pin-fixation. Primary outcome measure was determined with the help of Baumann angle. Secondary outcome measure was determined with the help of Metaphyseal-Diaphyseal [MD] angle. Mean age of patients was 7.02 +/- 2.25 year. Mean loss of Baumann angle and Metaphyseal Diaphyseal angles were 5.360 +/- 2.220 and 2.420 +/- 1.250 respectively. The mean Baumann angle loss in the two cross pins fixation group and the 2-lateral pins fixation group were 5.56° +/- 1.80° and 5.16° +/- 2.64° respectively. The mean MD angle loss in the two crossed pins fixation group and the 2-lateral pins fixation group was 2.440 +/- 1.220 and 2.400 +/- 1.230 respectively. When loss of Baumann and Metaphyseal-Diaphyseal angles were compared between two methods of fixation using Student t test, no significant difference in the stability of two methods of pin fixation was observed. Radiological analysis showed that both the techniques were effective in terms of stability.

Hydatidiform Mole

genetics

Variable number tandem repeat [VNTR] genotyping of hydatidiform mole in Iranian patients.

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AJMB-Avicenna Journal of Medical Biotechnology 2014; 6 (4): 246-253

Keywords: Minisatellite Repeats; Genotyping Techniques; Polymerase Chain Reaction

Abstract: Classification of molar gestation into Complete Hydatidiform Mole [CHM] and Partial Hydatidiform Mole [PHM] is done according to clinical, ultrasonographic, histologic and genetic criteria. However, making a distinction between CHM and PHM using histologic criteria alone may be difficult and several studies have shown that misclassifications are frequent, even for experienced pathologists. CHM is the most common precursor to choriocarcinoma and heterozygous moles carry an increased predisposition to transformation. Formalin-fixed, paraffin-embedded tissue sections of patients as well as peripheral blood of patients and their partners' were collected in EDTA tubes. Tissue samples were obtained by curettage. Histological evaluation was performed on routine section stained with Hematoxylin and Eosin. Variable Number Tandem Repeats [VNTRs] genotyping was performed for 30 cases in two groups of CHM [n=21] and PHM [n=9], with Polymerase Chain Reaction [PCR] amplification of 2 different polymorphic loci, namely the Col2A1 and D1S80. The results of DNA analysis by VNTR genotyping showed that in 16 cases of CHM, amplification of the VNTR polymorphic loci showed androgenetic mono-spermic moles [homozygote] and in 5 cases of CHM androgenetic dispermic moles [heterozygote] in molar tissue. In cases of PHM, 6 samples were triploid dispermic and 3 samples were diploid biparental. This study confirmed that VNTR genotyping can identify the parental source of polymorphic alleles in hydatidiform mole. Compared to STR genotyping, VNTR genotyping was performed by PCR amplification of several minisatellite markers of DNA. This method significantly requires less time and is cost-effective.

Hydronephrosis

congenital

An experience of open Anderson-Hynes pyeloplasty.

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JSP-Journal of Surgery Pakistan International 2013; 18 (3): 135-138

Keywords: Ureteral Obstruction; Multicystic Dysplastic Kidney; Prospective Studies

Abstract: To document the outcome of open Anderson-Hynes pyeloplasty for pelviureteric junction [PUJ] obstruction in terms of renal function and complications. Descriptive study. Department of Urology at Peoples University of Medical and Health Sciences for Women Hospital Shaheed Benazir Abad [Nawabshah] from 2007 to 2009. Thirty consecutive cases of pelviureteric junction obstruction were admitted. All patients underwent Anderson-Hynes open pyeloplasty. Complications and outcome were recorded. Most of our patients were male [n=25]. Majority belonged to age group 1-5 year [n=18]. Left side was affected in most of the cases [n=22]. Low incidence of postoperative accepted complications noted. Post operative outcome was excellent in relation to improved drainage and renal function. Anderson-Hynes pyeloplasty was safe, with low postoperative complication rate and better renal function preservation.

Hypoglycemia

Neonatal hypoglycemia; presenting pattern and risk factors of neonatal hypoglycemia.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 745-749

Keywords: Infant, Newborn, Diseases; Infant, Newborn; Risk Factors; Prospective Studies

Abstract: To determine the presenting features and assessment of the neonates with hypoglycemia along with maternal and neonatal risk factors for hypoglycemia. Subjects and All consecutive neonates with hypoglycemia admitted were included in the study. Demographic characteristics of the mothers and their babies, past medical history and illnesses during pregnancy especially that, of diabetes mellitus and duration, details of the management of labour and place of delivery, birth asphyxia as well as history of feeding prior to admission. All the risk factors and

clinical features were documented. From presenting features neonates were most common temperature instability 32% of the neonates. Maternal risk factors were as Maternal diabetic mellitus, Intrapartum administration of glucose, Maternal drug uses as: [Beta blockers, Oral hypoglycemic agents, Valproate], family history of metabolic disorder and without any factors with the percentage 13%, 17%, [15%, 08%, 07%], 27% and 13% respectively. Neonatal risk factors of the patients were found low birth weight 49%, small gestational age 26%, macrosomia 11%, respiratory distress 32%, sepsis 20%, hypothermia 25%, congenital cardiac abnormalities 4%, endocrine disorder 4%, family history of metabolic disorder 7%, inborn errors of metabolism 4%, rhesus hemolytic disease 5%, erythroblastosis fetalis 1%, inadequate feeding 35% and neonates without factors were 6%. The risk factors associate with neonatal hypoglycemia are, low birth weight, small gestational age, macrodome, respiratory distress, sepsis, hypothermia and inadequate feeding, and maternal risk factors associate to neonatal hypoglycemia was Eclampsia, Maternal diabetic mellitus, and maternal drug uses.

Immediate Dental Implant Loading

Immediate implant placement and temporization in the aesthetic zone in the presence of horizontal and vertical bone defect. A case report.

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Smile Dental Journal 2014; 9 (2): 24-28

Keywords: Esthetics, Dental; Bone and Bones-abnormalities; Incisor; Maxilla; Bone Regeneration

Abstract: A 52-year-old male patient presented with an endodontically failed right maxillary central incisor. The patient expressed high esthetic demands: "I can't walk away without a tooth, and I can't support any removable appliance". The clinical and radiographic examination revealed according to Elian et al. [2007] a type 2 defect site requiring guided bone regeneration procedure prior to implant placement, moreover the presence of diastema contraindicated any bonded provisional prosthetic solution. After tooth extraction, a localized alveolar ridge deficiency did not prevail the immediate placement of a tapered 5x 13mm diameter dental implant [Full Osseotite tapered implant, Biomet 3i, Palm Beach Garden, Florida] with bone regeneration using xenograft granules of Endobon [Biomet 3i, Palm beach Garden, Florida]. Simultaneously, a temporary platform switching abutment was screw-retained on top of the implant allowing for a four months healing period. Later, the implant demonstrated excellent conditions for impression taking and the final restoration was screw-retained 5 months following implant placement. The immediate implant placement is an ideal treatment option for the proper candidate. Several factors must be taken into consideration to allow clinical success and attain patient's expectations. This case report describes the successful replacement and temporization of a failed maxillary central incisor with a Biomet 3i implant after immediate placement and a bucco-lingual augmentation of the resorbed alveolar ridge.

Inappropriate Prescribing

[Frequency of use of potentially inappropriate medications and its associated factors in elderly people in Qom city, 2012, Iran]

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Qom University of Medical Sciences Journal 2014; 8 (4): 44-52

Keywords: Pharmaceutical Preparations; Aged; Cross-Sectional Studies; Questionnaires

Abstract: Today, use of potentially inappropriate medications [PIM] by the elderly is a serious concern. This study was done with the purpose of determining the frequency of use of potentially inappropriate medications and its associated factors among the elderly in Qom city. In this descriptive cross-sectional study, 1240 elderly people were selected using systematic cluster sampling from nursing homes, outpatient clinics, and Kamkar, Nekoei, and Shahid Beheshti Hospitals in Qom city in 2012. Data were collected by demographic questionnaire and Beers criteria [updated in 2003], and were analyzed using descriptive statistics, chi-square and t-tests. In this study, 31% of the elderly were using PIM. Digoxin [7.9%], alprazolam and Bisacodyl [6.1%], and chlorthalidopoxide [4.6%] were the most common potentially inappropriate medications used by the elderly. The frequency percentage of PIM use was significantly associated with education, cause of drug use, and number of medications used by the elderly [$p < 0.05$]. The frequency percentage of the use of PIM in outpatient centers were more than other centers. Also, more than a quarter of elderly subjects used at least one potentially inappropriate medication. The frequency percentage of PIM use in outpatient treatment centers, illiterate people, subjects with cardiovascular and musculoskeletal disorders, and those who took more than 5 drugs were more than other groups. Nurses can prevent the development of side-effects in elderly subjects by review of drugs used in patients. Therefore, it is suggested that a study be conducted to determine the effect of training about PIM use on the incidence of adverse effects, drug interactions, frequency of hospitalization and mortality rate in elderly people.

Incisor

injuries

Immediate autotransplantation of premolar as a treatment modality to replace a severely traumatized central incisor.

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Pakistan Oral and Dental Journal 2014; 34 (3): 440-444

Keywords: Transplantation, Autologous; Bicuspid

Abstract: Autotransplantation of teeth has been reported by many authors to replace missing teeth, either posterior or anterior, where it became a realistic treatment alternative and useful routine procedure for replacement of teeth in young adolescents where the implant option is relatively contraindicated, particularly to replace teeth lost due to trauma. This paper presents fourteen years old boy, who was referred for the treatment of crown fracture of the maxillary central incisor. Decision was made to extract a mandibular premolar and to transplant it in the site of extracted incisor. At the time of surgery, the central incisor was removed and the mandibular first premolar was transplanted in its socket and splinted with orthodontic multiflex wire for three weeks. Endodontic treatment commenced after one week. The pulp was extirpated and non-setting calcium hydroxide was inserted in the canal and replaced every month for six months, the root was filled with gutta-percha filling material and the crown was reshaped to look like central incisor by composite resin restoration. The patient was then referred for orthodontic treatment.

Individualized Medicine

Personalized medicine: a tailor made medicine.

Akhondzadeh, Shahin

AJMB-Avicenna Journal of Medical Biotechnology 2014; 6 (4): 191-191

Keywords: Medicine

Induced Pluripotent Stem Cells

A comparative study of osteogenic differentiation human induced pluripotent stem cells and adipose tissue derived mesenchymal stem cells.

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Cell Journal [Yakhteh] 2014; 16 (3): 235-244

Keywords: Adipose Tissue; Mesenchymal Stromal Cells; Tissue Engineering; In Vitro Techniques; Flow Cytometry; Alkaline Phosphatase; Real-Time Polymerase Chain Reaction

Abstract: Human induced pluripotent stem cells [iPSCs] have been shown to have promising capacity for stem cell therapy and tissue engineering applications. Therefore, it is essential to compare the ability of these cells with the commonly used mesenchymal stem cells [MSC] for bone tissue engineering in vitro. In this experimental study, the biological behavior and osteogenic capacity of the iPSCs were compared with MSCs isolated from human adipose tissue [AT-MSCs] using 3-[4,5-di-methylthiazol-2-yl]-2,5-diphenyltetrazolium bromide [MTT] assay, Alizarin red staining, alkaline phosphatase [ALP] activity measurements, calcium content assay and common osteogenic-related genes. Data were reported as the mean \pm SD. One-way analysis of variance [ANOVA] was used to compare the results. A p value of less than 0.05 was considered statistically significant. There was a significant difference between the rate of proliferation of the two types of stem cells; iPSCs showed increased proliferation compared to AT-MSCs. During osteogenic differentiation, ALP activity and mineralization were demonstrated to be significantly higher in iPSCs. Although AT-MSCs expressed higher levels of Runx2, iPSCs expressed higher levels of osteonectin and osteocalcin during differentiation. iPSCs showed a higher capacity for osteogenic differentiation and hold promising potential for bone tissue engineering and cell therapy applications.

Infection Control

Knowledge, attitude and practice concerning infection control measures among dental health care providers of Dow university of health sciences.

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Pakistan Oral and Dental Journal 2014; 34 (3): 452-456

Keywords: Infection Control, Dental; Health Knowledge, Attitudes, Practice; Health Personnel; Students, Dental; Cross-Sectional Studies

Abstract: A cross sectional study was conducted among dental students of Dow International Dental College [DUHS] to find out their level of knowledge, attitude, and practice about infection control measures. If any significant linear correlation was present between the knowledge, attitudes and practice, their scores were observed. Statistical analyses for knowledge, attitude and practice descriptive statistics were computed using the SPSS software for Windows version 17. ANOVA was used to calculate p-value of knowledge, attitudes, and practice values. Pearson's test was used to compute the correlation among knowledge, attitudes, and practice scores. A p value of ≤ 0.05 was considered to be significant for all statistical analyses. Mean scores of knowledge, attitudes, and practice were 9.66 [1.38], 6.98 [1.36], and 10.16 [1.42] respectively. Significant differences between the study groups were noticed for means of practice scores [≤ 0.01] and significant linear correlation was observed between knowledge and practice scores [p ≤ 0.01]. Among knowledge-attitude and attitude-practice scores no differences were seen. The knowledge and attitude of dental students about cross infection control is enhancing but there is still some room for developing a firm attitude. This attitude can be improved by refreshing and upgrading their knowledge by obtaining continues education regarding universal infection control measures through arranging sessions or lectures for students of each professional year and keeping all the vaccination especially Hepatitis B mandatory for students prior to take admission in any dental institution.

Infertility, Male

A rare de novo complex chromosomal rearrangement [CCR] involving four chromosomes in an oligo-asthenosperm infertile man.

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Cell Journal [Yakhteh] 2014; 16 (3): 377-382

Keywords: Chromosomes; Chromosome Aberrations; Karyotype; In Situ Hybridization, Fluorescence; Spermatogenesis; Oligospermia; Chromosomes, Human, Pair 13; Chromosomes, Human, Pair 14; Chromosomes, Human, Pair 16; Chromosomes, Human, Pair 18

Abstract: Complex chromosomal rearrangements [CCRs] are rare events involving more than two chromosomes and over two breakpoints. They are usually associated with infertility or sub fertility in male carriers. Here we report a novel case of a CCR in a 30-year-old oligoasthenosperm man with a history of varicocelelectomy, normal testes size and normal endocrinology profile referred for chromosome analysis to the Genetics unit of Royan Reproductive Biomedicine Research Center. Chromosomal analysis was performed using peripheral blood lymphocyte cultures and analyzed by GTG banding. Additional tests such as C-banding and multicolor fluorescence in situ hybridization [FISH] procedure for each of the involved chromosomes were performed to determine the patterns of the segregations. Y chromosome microdeletions in the azoospermia factor [AZF] region were analyzed with multiplex polymerase chain reaction. To identify the history and origin of this CCR, all the family members were analyzed. No micro deletion in Y chromosome was detected. The same de novo reciprocal exchange was also found in his monozygous twin brother. The other siblings and parents were normal. CCRs are associated with male infertility as a result of spermatogenic disruption due to complex meiotic configurations and the production of chromosomally abnormal sperms. These chromosomal rearrangements might have an influence on decreasing the number of sperms.

Intubation, Intratracheal

methods

Comparison of three tracheal intubation techniques in thyroid tumor patients with a difficult airway: a randomized controlled trial.

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Medical Principles and Practice 2014; 23 (5): 448-452

Keywords: Thyroid Neoplasms; Laryngoscopes

Abstract: To investigate the effectiveness of the Shikani optical stylet [SOS] and Glide Scope video laryngoscope [GLV] for tracheal intubation of thyroid tumor patients with a difficult airway. One hundred and twenty thyroid tumor patients with a difficult airway, who were undergoing elective surgery requiring general anesthesia, were enrolled in the study. They were randomly allocated to 3 groups [n = 40 each] who underwent direct laryngoscopy [DL], SOS or GLV. The outcomes recorded were time to intubation, first-attempt success rate, mean artery pressure [MAP], heart rate [HR] and incidence of complications. The mean time to intubation in the SOS group [group S; 42.4 +/- 24.1 s] and the GLV group [group G; 29.8 +/- 22.3 s] was significantly less than that in the DL group [group D] [68.8 +/- 26.6 s]. The first-attempt success rate in group S [90.0%] and group G [97.5%] was significantly higher than that in group D [75.0%; all p < 0.05]. The HR and MAP at 1 min after intubation were lowest in group S [76.4 +/- 9.2 beats/min and 12.9 +/- 1.1 kPa], followed by group G [79.9 +/- 9.3 beats/min and 13.0 +/- 0.9 kPa] and then group D [90.4 +/- 8.1 beats/min and 16.6 +/- 1.2 kPa]. The difference was statistically significant [all p < 0.05]. The incidence of lip or mucosal trauma was lowest in group S, followed by group G and then group D. The SOS and the GLV had advantages over the DL in the management of thyroid tumor patients with a difficult airway in terms of a shorter time to intubation, a higher first-attempt success rate and a reduced incidence of complications. Thus, a rational choice of one of these techniques may be better for the perioperative safety of thyroid tumor patients with a difficult airway.

Kidney

ultrasonography

Sonographic assessment of renal size in healthy adults.

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Medical Principles and Practice 2014; 23 (5): 432-436

Keywords: Ultrasonography; Adult; Kidney Cortex

Abstract: To assess the normal sonographic values of renal length and cortical thickness in healthy adults and establish reference ranges in our population for comparison when examining renal disease. Sonographic assessment of renal length and cortical thickness were performed from January 2006 to December 2011 in 252 healthy individuals who were self-referred to the El-Reshaid Renal Clinic in Kuwait. They were screened for the absence of renal abnormalities. Weight and height were measured, and body mass index [BMI] and body surface area calculated. Patients were divided into 5 age groups: 18-30, 31-40, 41-50, 51-60 and 61 -80 years, in order to generate reference graphs for renal length and cortical thickness. The mean renal lengths for the right and left kidney were 10.68 +/- 1.4 and 10.71 +/- 1.0 cm, respectively [p = 0.56] without a significant change with age. The minimum cortical thickness was 0.6 cm. The renal length correlated with the weight of the patients [p < 0.01] and their BMI [p < 0.01] but not with their height. There was no difference in renal size or cortical thickness in patients older than 60 years despite an age-related decline in the glomerular filtration rate [p < 0.001]. Renal length and cortical thickness did not vary significantly with age. Renal length correlated well with weight and BMI but not with height. Hence, establishing normal ranges of renal parameters is essential for comparison in situations where possible renal disease is being investigated.

Kidney Function Tests

Should renal function become an important factor in cognitive impairment and cognitive decline?

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Medical Principles and Practice 2014; 23 (5): 486-486

Keywords: Cognition Disorders; Alzheimer Disease; Dementia

Leiomyoma

epidemiology

Fibroid; frequency and factors.

Khalil, Mehreen; Ali, Lubna; Hakeem, Nazia

Professional Medical Journal-Quarterly [The] 2014; 21 (4): 639-643

Keywords: Uterine Neoplasms; Menorrhagia; Obesity; Risk Factors

Abstract: Fibroids are the commonest benign tumors and it is estimated that they occur in 20-40% of women during their reproductive years. Reported risk factors consistent with the hormonal hypothesis include

premenopausal status, younger at menarche, and obesity. Reported protective factors include parity and oral contraceptive use. This study was designed to give us the burden of fibroid and factors leading to fibroid. To determine the frequency and factors leading to fibroid in women presenting with menorrhagia in outpatient department of gynae unit-I Civil Hospital Karachi. Cross sectional study. Department of Obstetrics and Gynaecology- I, Civil Hospital, Karachi. Six months from 12th March, 2011 to 11th September, 2011. A total of 121 patients meeting the inclusion criteria were enrolled in study. History was taken regarding duration and severity of menorrhagia and the factors leading to fibroid including age, parity, obesity and family history, women with a weight of 50kg or more were taken as obese. If findings consistent with fibroid as per operational definition were found on ultrasound then it was termed as fibroid +ve. Mean [+/- SD] age was 27.9 [+/- 5.3] years. Frequency of fibroid was found in 68 [56.2%] patients with menorrhagia. Family history fibroid was found in 51 [42.1%] women out of which fibroid was found positive in 30 [58.8%] women, that was the most common factor leading to fibroid in this study, followed by obesity 28 [35.4%] and nulliparous 10 [25.6%]. Frequency of fibroid was found in 56.2% patients with menorrhagia. Family history of fibroid was most common risk factor leading to fibroid found in 58.8% women.

Lifting

Measurement of the carrying angle in Jordanians with respect to different body parameters.

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Jordan Medical Journal 2014; 48 (2): 93-101

Keywords: Age Factors; Sex Factors; Body Height; Body Weight; Elbow Joint

Abstract: The carrying angle is defined as the angle made by the long axes of the arm and fore arm in the coronal plane when the forearm is fully extended and supinated. This angle is important in the management of fractures and surgeries that occur around the elbow joint. The present study aimed to investigate the carrying angle variations in a Jordanian population with respect to several body parameters including age, sex, height, weight, and dominant side. The study included students and employees from the Jordan University of Science and Technology and younger students from elementary public schools in Jordan. The supplementary carrying angles [SCAs] of these volunteers were measured using a universal manual goniometer. SCA is the acute angle that complement carrying angle to 180. The results indicate that SCA increased significantly after 10 years of age. The SCA was greater in Jordanian women than in the men. However, no variation in SCA was found with respect to height and weight in the Jordanians. Furthermore, the SCA was significantly greater in the dominant side. In conclusion, age, sex, and handedness were important factors that influenced the carrying angle in our Jordanian study samples. However, height and weight did not seem to have any influence on the values in our study.

Linitis Plastica

diagnosis

Infiltrative gastric carcinoma - linitis plastica.

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JSP-Journal of Surgery Pakistan International 2013; 18 (3): 148-150

Keywords: Stomach Neoplasms-diagnosis; Dyspepsia

Abstract: Diffuse gastric carcinomas infiltrate gastric walls creating fibrous reactions and are frequently hard to diagnose. Biopsies of the mucosa may not contain the cancerous tissue. We present the case of a 51 year old male with dyspepsia. The upper GI endoscopy revealed thickening of the gastric mucosal folds, with no ulceration; the biopsy was normal. The endosonography confirmed the plastic linitis without invasion of the surrounding organs. A total gastrectomy was performed with partial ganglionic excision. The histopathology revealed a poorly differentiated diffuse adenocarcinoma. The patient passed away two months after surgery.

Liver Cirrhosis

classification

The correlation between serum sodium level and the disease stage and complications in liver cirrhosis.

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Assiut Medical Journal 2013; 37 (1): 115-120

Keywords: Liver Cirrhosis-complications; Sodium-blood; Liver Function Tests

Abstract: Hyponatremia is a common finding in patients with decompensated cirrhosis due to an abnormal regulation of body fluid homeostasis. Most prognostic scores including Child-Pugh score rely on a limited number of variables, which were put together empirically. To evaluate the level of serum sodium in liver cirrhosis in its different disease stages and complications and the possible of adding its value to Child-Pugh score to improve it. 190 patients; 100 males and 90 females; with liver cirrhosis admitted to Qena university hospital were included. Patients were classified according to Child-Pugh score into three groups; class A, B and C. Presence of different complications including hepatic dysfunction and portal hypertension were detected. Serum sodium level was measured for all patients. Its correlations with different disease stages and complications were statistically analyzed. Serum sodium level was decreased significantly from child A to B to C [P value = 0.02 between groups]. Patients with massive ascites showed statistically lower level than those with mild and moderate ascites [P value = 0.00 between groups] but there was no difference between patients with and without spontaneous bacterial peritonitis. Sodium level decreased significantly in patients with hepatic encephalopathy grade III and IV than those with grade I, II and those without HE [P value= 0.03 between groups] No statistically significant difference was found between those with absence, small and large esophageal varices. Positive correlation was detected between serum sodium level and Child-Pugh score [r = +0.72, P value = 0.02] Serum sodium level decreased significantly with more liver dysfunction, adding its value to Child-Pugh score could improve the score value in assessment of the liver affection.

Liver Transplantation

Management of traumatic upper limb arterial injuries: three years study.

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Assiut Medical Journal 2013; 37 (1): 279-290

Keywords: Living Donors; Prospective Studies; Graft Survival-physiology

Abstract: Upper limb vascular injury conditions requiring surgical intervention are multivariuous and so are the surgical techniques employed. In the developing countries traumatic events predominate and the mechanism by which varies from society to another. Upper limb vascular injury must be approached promptly to avoid debilitating morbidity and mortality. is to assess the current management approach and to evaluate the outcome of patients with upper limb vascular trauma in Assiut University hospital. Forty two patients requiring operative intervention for upper limb vascular trauma from October 2009 - October 2012 were included. Patients were underwent full physical examination and resuscitation. The diagnosis of vascular injury is initially made by clinical examination as part of the full trauma assessment, plain x-ray, Doppler, Duplex and CT-angiography when indicated. Types of vascular repairs, orthopedic fixation, nerve repair, fasciotomy procedure and state of limb function after management were recorded. Forty two patients [37 males and 5 females] with mean age of 27H2.6 years [range 1.5 -70 ys] were included. The right upper limb was affected in 22 patients and the left was affected in 20 patients. Brachial artery was the most frequently affected 57.1%, followed by the axillary artery 31%, subclavian artery 9.5% and the ulnar artery 2.4%. The patients were presented 1-10 hours after injury [mean 6 +/- 2.1 hrs] with bleeding in 42.9%, ischemia 30.9%, ischemia 4 bleeding 9.5%, ischemia + hematoma 7.2% and expansile hematoma 9.5%. Penetrating trauma was in 90.4% and blunt trauma was in 9.6%. Injury by fire arm was in 40.4%, sharp objects 26%, motor car and train accidents 21%, iatrogenic 2.1% and fall from height 9.5%. Concomitant vein and/or nerve injuries were in 73%. Isolated nerve injury [brachial plexus or median nerve] was in 9.5%, isolated vein injury in 7.2% and both were injured in 57%. Orthopedic injuries occurred in 33% [open fracture 19%, closed fracture 12% and dislocation 2.4%]. Orthopaedic repair was done firstly before vascular repair except in delayed cases. Arterial repair in the form of end to end anastomosis in 42.8%, interposition vein graft 33.4%, simple repair 12%, ligation 4.7%, or thromboembolctomy in 4.7% were done. Heparin was applied both intralesional and systemic. Prophylactic fasciotomy with other vascular repair was also done in 30%. Primary nerve repair in non thermal [firearm] injuries was obtained while delayed repair was decided in thermal injuries. Small veins are ligated and large veins are managed by simple repair. The success rate of vascular repair was 39/42 [92.8%] assessed by the return of distal pulses at the end of the operation and limb salvage in follow up period. Three patients [7.2%], one of them [2.4%] died because of major head injury and above elbow amputation was done for the other two [4.8%]. All surviving patients were followed for one year for hand function and distal pulse. Clinical examination of the injured upper limb is a reliable diagnostic approach for evaluation of the vascular injury. Factors could help promoting good prognosis are; not wasting time with preoperative diagnostic tests, early intervention within 10 hours after trauma, performing orthopaedic repair firstly before vascular repair except in delayed cases, assessment and management

of nerve injuries, use of intralesional and systemic anticoagulants, and prophylactic fasciotomy performance.

Is meld score a reliable outcome predictor in living donor liver transplantation?

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Assiut Medical Journal 2013; 37 (1): 269-278

Keywords: Living Donors; Prospective Studies; Graft Survival-physiology

Abstract: In patients undergoing orthotopic liver transplantation [OLT], some studies have shown that a higher preoperative MELD score is associated with higher morbidity and mortality [Saab et al 2003]. Other studies also suggest that higher MELD scores are associated with increased intraoperative risks [Xia et al 2008]. to evaluate the impact of preoperative MELD status on metabolic, electrolyte and haemodynamic changes during living donor liver transplantation, and consequently on outcome and for right choice of candidate who will get greatest benefit from transplantation. After approval iron- ethical committee and a written consent from every patient a prospective observational study including 40 patients scheduled for living donor liver transplantation in Wady El Nile hospital. Patients classified according to MELD score into group 1 [G1] with score <25 and group2 [G2] > 25. Haemodynamic, metabolic and electrolytes data collected during the three phases: pre anhepatic, anhepatic and post reperfusion phase and follow up for 1[st] post operative week then two years mortality. G2 associated with significant intraoperative haemodynamic disturbances in all stages compared to G1 in the form of lower mean arterial blood pressure, lower systemic vascular resistance, higher pulmonary vascular resistance, and higher cardiac output. Also there were more intraoperative metabolic and electrolyte disturbances as there were more acidosis, lower standard bicarbonate values, more base deficits, more negative anion gap and strong ion difference, higher serum potassium level, poor intraoperative glycemic control and much higher blood lactate level. Also there were higher early mortality in G2 8 cases [40%] while 3 cases [15%] in G1. 2 years mortality in G1 5 cases [25%] while 10 cases [50%] in G2., time of ICU stay was 5.1 days in G1 and 7 days in G2 time of hospital stay was 21.6 days in G1 and 26.2 days in G2 High MELD score patients associated with more intraoperative haemodynamic, metabolic and electrolyte disturbances, longer postoperative ICU and hospital stay and higher mortality.

physiology

Role of multidetector CT in evaluation of liver transplantation donors.

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Assiut Medical Journal 2013; 37 (1): 45-60

Keywords: Multidetector Computed Tomography-utilization; Prognosis

Abstract: Several factors have contributed to an increasing demand for liver transplantation including an increasing incidence of cirrhosis caused by hepatitis C and the early detection of small hepatomas that are potentially curable with transplantation. Living donors can help alleviate the shortage of available livers for transplantation. Multidetector CT is a technologic advance that permits highspeed and high-resolution helical imaging of the entire liver volume during a single breath-hold. Rapid helical data acquisition has resulted in increased body coverage, decreased motion artifact, better use of contrast bolus, and multiphase organ scanning that allows accurate vascular mapping. The combination of fast helical scanning and image processing in three-dimensional [3D] and multiplanar reconstructions has resulted in dramatic improvement of image quality and the ability to depict fine anatomic-vascular detail. The study included 50 potential living liver donors to assess the impact of multidetector multiphase CT in facilitating patient selection and surgical planning in potential donors being evaluated for living adult right lobe liver transplantation. Results: the mean age of the donors was 27.4 years including 28 females and 22 males. Calculated total liver volumes mean was 1523 +/- 239 gm, right lobe mean weight with middle hepatic vein was 893 +/- 153 gm and 621 +/- 772 gm without middle hepatic vein, intra operative mean graft weight was 1043.46 +/- 763.77 gm while that measured intra operatively had a mean weight of 853.14 +/- 122.69 gm with a mean weight difference of 190.32 gm. CT calculated graft recipient weight ratio was 1.34 while actual GRWR was 1.068. meal L/S ratio 1.12. The classic anatomy of right main hepatic artery originating from the caeliac trunk [Michel type I] is seen in 35 cases [70%], while RHA originating from SMA [Michel s' type HI] seen in 8 cases [16%], CHA originating from SMA [Michel s' type IX] in 4 cases [8%], RHA from the aorta [Michel s' type XI] in 2 cases [4%] and two LHAs [Michel s' type VII] in one case [2%]. Variation in portal venous anatomy occurred in 20% of patients and includes: 1-trifurcation of the portal vein [type B] in 9 cases [18%] 2-posterior right portal vein from main portal vein [separate branch for posterior inferior segment, segment VII] Type D in lease [2%]. hepatic veins showed early confluence to the right was present in j patients [6%] and accessory inferior right hepatic vein was detected in 2 patients [4%] Multidetector CT is a valuable tool in the evaluation of potential living liver donors that provides complete and comprehensive information on the hepatic vascular anatomy, the liver parenchyma, and volumetric measurements.

Lumbar Vertebrae

Radiography

Age estimation and sex determination from lumbar vertebral morphometry by magnetic resonance image [MRI]

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Assiut Medical Journal 2013; 37 (1): 107-114

Keywords: Age Determination by Skeleton; Sex Determination Analysis; Magnetic Resonance Imaging-methods

Abstract: Estimation of age and determination of sex are very important in forensic medicine. The present study aimed to detect the reliability of age estimation and sex determination based on lumbar vertebral measurements of some Upper Egypt population. Evaluation of the lumbar indices in 121 cases [63 males, 58 females: 26 - 48 years old] was done. For lumbar vertebrae [L2 and L4], anterior height, central height, posterior height and anteroposterior diameter measurements [H[a], H[c], H[p] and D respectively] were performed by MRI. These measurements were used to calculate the anterior wedge index [H[a]/ H[r]] the biconcavity index [H[L]/ H[p]] and the compression index [H[r]/ D]. The values of each of the three indices for both lumbar vertebrae of females were higher than those of the same vertebrae in males. The H[t]/H[p] and H./H[r] ratios were increased by increasing age for both L2 and L4 in males and females. While, Hp/D decreased with age at L2 and L4 in females only. Regarding to changes in these indices with age, in males for L2, the value of anterior wedge index [H[a]/H[p]] was statistically significant [p <= 0.02] in males less than 40 years. The biconcavity index [H[c]/H[p]] was highly statistically significant in males less and more than 40 years [p <= 0.002, p <= 0.003 respectively]. For L4, only biconcavity index [H[c]/Hp] was statistically significant [p <= 0.02] for all ages in males. In females, the values of Ha/Hp ratio were not significant with all ages, while biconcavity index [H[c]/H[r]] was statistically significant [p <= 0.01] for L2 only in females less than 40 years. The key benefits associated with MR-based morphometry for lumbar vertebra may favor its application in estimation of age and differentiation of sex.

Macular Edema

drug therapy

Diabetic macular edema; role of intravitreal bevacizumab in treating clinically significant diabetic macular edema.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 810-815

Keywords: Diabetes Mellitus; Antibodies, Monoclonal, Humanized; Intravitreal Injections; Visual Acuity; Prospective Studies

Abstract: To evaluate the effect of Intravitreal Bevacuzimab on Best Corrected Visual Acuity in patients with clinically significant diabetic macular edema. A prospective uncontrolled interventional case series in which 42 eyes of 31 consecutive diabetic patients with clinically significant macular edema and no significant comorbid ocular association presenting in the outpatients department of Holy Family Hospital and EYE SURGERY clinic, Rawalpindi Pakistan and opting for the treatment from 1st September 2013 to 31st January 2014 were given an intravitreal injection of Bevacizumab. BCVA was documented prior to and four weeks after the injection. Main outcome measure was changes in BCVA. Out of the 31 patients included in the study 14[45.16%] were male and 17 [54.83%] female. Average age was 56.1 +/- 7.6. All 31 patients [42 eyes] came for follow up and their BCVA recorded. 41 [97.61%] eyes showed an improvement of one or more line on Snellen's chart at 4 weeks. 14 [33.33%] eyes showed an improvement of one line, 19 [45.23%] eyes an improvement of two lines, 6 [14.28%] eyes three lines and just 2 [4.76%] eyes had an improvement of four lines on Snellen's chart at 4 weeks. Only 1[2.38%] eye remained same with no worsening. On log MAR conversion scale for Snellen's letters the BCVA improved from 0.76 +/- 0.27 to 0.47 +/- 0.27 [p < 0.001]. No significant complications were observed in any of the eyes. The use of intravitreal Bevacizumab [1.25mg/0.05ml] is a safe and effective mode of treatment for clinically significant diabetic macular edema.

Magnetic Fields

Effect of uniform magnetic field on dose distribution in the breast radiotherapy.

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International Journal of Radiation Research 2014; 12 (2): 151-160

Keywords: Breast; Radiotherapy; Phantoms, Imaging; Breast Neoplasms

Abstract: To reduce the dose to normal tissues surrounding the treated breast, a uniform magnetic field was used within a humanoid phantom in breast radiotherapy. Monte Carlo simulations were performed with GEANT4, irradiating humanoid phantoms in a magnetic field. To reconstruct phantoms, computed tomography [CT] data slices of four patients were used for the Monte Carlo simulations. All of them had left breast cancer either or not mastectomy. In the simulations, the planning and methods of chest wall irradiation were similar to the actual clinical planning. Utilizing magnetic field will help to produce uniform dose distribution to the breast with a sharp dose-volume histogram [DVH] curve for the planning target volume [PTV], however, for the ipsilateral lung and chest wall skin the mean dose was reduced by a mean of 16% and 12% at 1.5 T, and 9% and 7% at 3 T, respectively. The magnetic field was shown to restrict the lateral spread of secondary electrons to the contralateral organs, resulting in significant dose reductions to the contralateral breast [CB] and contralateral chest wall skin [CCWS] by a mean [range] of 28% [21-37%] and 58% [44-75%] at 1.5 T, and 48% [32-81] and 66% [54-73%] at 3 T, respectively. The simulations established that the magnetic field can reduce the dose to the internal and contralateral tissues and increase it to the PTV with sharper edge DVH curve.

Malathion

toxicity

Light and electron microscopic study on the effect of malathion on the adrenal gland of adult male albino rat and the possible protective role of vitamin [C]

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Assiut Medical Journal 2013; 37 (1): 147-172

Keywords: Adrenal Glands-ultrastructure; Microscopy, Electron-methods; Protective Agents; Ascorbic Acid-therapeutic uses; Treatment Outcome; Rats

Abstract: Malathion is one of the organophosphorus insecticides widely used in agricultural and household applications to control pests. Actually, the studies of the effect of malathion on the adrenal gland are still limited, Vitamin C is the major water soluble antioxidant and free radical scavenger within the body. The aim of the work is to study the effect of chronic exposure to malathion on the adrenal gland. We also aim to study the possible protective effect of vitamin C in attenuating the possible malathion induced changes. A total number of 30 adult male albino rats aged three months was used in the present study. Rats were randomly divided into three groups: 1- The first group [G1]: 10 rats were used as control 2- The second group [GH]: 10 animals were used as malathion treated group. 3- The third group [GU]: 10 rats were used as malathion/vitamin C treated group. Commercial malathion was used, dissolved in distilled water and given orally by intragastric tube in a dose of 100 mg/kg/day for 2 months. Vitamin C was given orally by intragastric tube in a dose of 20 mg/WOgm/day for 2 months. After two months, the animals of the three groups were anaesthetized with ether inhalation and the suprarenal glands were dissected out and processed for light and electron microscopic examination. In malathion treated rats, there was cellulose disturbance in the arrangement of the adrenal gland. The cells of the cortex and medulla, showed irregular nuclei and apparent increase in the cytoplasmic vacuolation. Cortical and medullary blood capillaries were dilated and engorged with blood. Immunohistochemical staining for Caspase-3, showed many caspase-3 positive cells in the cortex and medulla. Ultrastructurally, degenerative changes were observed in the cortical and medullary cells in the form of cytoplasmic vacuolation, mitochondria! degeneration and increased lipid droplets. These changes were partially resolved by coadministration of vitamin C. Malathion had a harmful effect on adrenal gland so, it leads to impairment of its function in producing various hormones. This effect could be partially resolved, by concomitant administration of vitamin [C]. So, it is advisable to give vitamin [C] to those exposed to malathion.

Malocclusion

epidemiology

Frequency of malocclusion among 12 -15 years old school children in three sectors of Karachi.

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Pakistan Oral and Dental Journal 2014; 34 (3): 510-514

Keywords: Prevalence; Schools; Child; Cross-Sectional Studies; Overbite

Abstract: This study was done to explore the prevalence of malocclusion among 12-15 year old school children and to determine the differences of malocclusion status in gender. A cross sectional study was conducted in which a total of 1200 school children were examined. Out of these 718 students fulfilled the inclusion criteria using a non-randomized purposive sampling technique. The study was conducted during the period of 2009-2011 in Karachi schools [Bahadurabad, Nazimabad and Gulsahan-e-Iqbal areas]. Each individual was assessed visually with a millimetre ruler for the presence of different occlusal traits [normal occlusion, Class 1, Class 2 division 1, Class 2 division 2 and Class 3 malocclusion] overjet [OJ], overbite [OB], crowding, midline diastema and cross bite. Gender dimorphism was analysed using descriptive statistics and Chi-square test by using computer software [SPSS version 16.0]. Out of all the occlusive traits, Class 1 malocclusion and overbite was dominant feature in females. The baseline data explained in the present study can be utilized for the future planning of orthodontic treatment needed among the population.

Prevalence of malocclusion and its relation with crowding and spacing.

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Pakistan Oral and Dental Journal 2014; 34 (3): 472-476

Keywords: Prevalence; Orthodontics; Maxilla; Mandible; Cross-Sectional Studies

Abstract: Study was carried out to determine the prevalence of malocclusion and its relation with crowding and spacing in orthodontically referred patients in a Karachi sample. 1082 patients were examined [362 males and 720 females] over the period of three years. Malocclusion was categorized according to Angles classification. Study model of each subject was used to assess crowding and spacing in both maxillary and mandibular dentition. Chi Square test was used to find relationship of crowding and spacing with different categories of malocclusion. Class II division 1 was most prevalent type of malocclusion [32%]. Relation of maxillary and mandibular crowding or spacing with different categories of malocclusion was found to be statistically significant [$p < 0.05$]. Mild maxillary crowding, mild mandibular crowding and mild mandibular spacing were most common finding in all malocclusion categories. Except for Class III malocclusion category, where moderate maxillary spacing was more prevalent, mild maxillary spacing was most frequently observed in remaining categories. Class II was most prevalent category of malocclusion. Relationship of crowding and spacing with different malocclusion categories was statistically significant. These results do not necessarily reflect the trend of entire Pakistani population as study was conducted in southern Pakistani population.

Maxillofacial Injuries

etiology

Etiology, pattern and management of maxillofacial fractures in patients seen at mayo hospital, Lahore - Pakistan.

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Oral and Maxillofacial Surgery

Pakistan Oral and Dental Journal 2014; 34 (3): 417-421

Keywords: Maxillofacial Injuries-therapy; Disease Management; Fractures, Bone; Tertiary Care Centers; Retrospective Studies; Facial Bones-injuries; Accidents, Traffic; Mandibular Fractures

Abstract: The objective of the study was to determine the varying etiology, pattern and mode of treatment of maxillofacial injuries in a tertiary care centre, Mayo Hospital, Lahore, Pakistan. This was a retrospective study spread over two years and six months i.e. January 2010 to June 2012. 214 consecutive indoor/ outdoor and emergency patients with maxillofacial injuries formed the study group. Data concerning the patients' demographics, aetiology, occupation, socioeconomic status and pattern of maxillofacial injuries were obtained and analysed. The most frequent bone fractured was the mandible, which accounted for 106 cases 49.5%, followed by 15.4% of pan facial [full house] fractures and 12.6% of Zygomatic complex fracture. The associated mid face fractures were found in 12.6% and isolated nasal bone fractures were found in 1.5% cases. The most common cause of injury was RTA 58.4%, followed by falls 24%, FAls 6.1%, interpersonal violences 2.8%, sports and other injuries were 8.4%. Employees 49.5% and students 31.3% in age groups 20-40 years were mostly affected by RTA, while falls 14.4% were more common in age group less than 20 years. Open reduction and internal fixation alone 43.9%, maxillomandibular fixation +/- suspension 38.8% and open reduction and internal fixation with maxillomandibular fixation 14.5% were the main mode of treatment in this centre. In this study, mandible was the most commonly fractured facial bone; RTA especially by motorbike and chigchi rikshaw was the most common etiological factor. Results could be influenced by the personal and working environment.

Meckel Diverticulum

complications

Axial torsion of a massive Meckel's diverticulum causing ileal gangrene.

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JSP-Journal of Surgery Pakistan International 2013; 18 (3): 154-155

Keywords: Torsion Abnormality; Gangrene; Ileum-pathology

Abstract: Meckel's diverticulum [MD] is a common congenital gastrointestinal anomaly prevalent in around 2% of the population causing complications in 4% of patients. Axial torsion of MD is a rare complication. Gangrene of MD and ileum secondary to axial torsion, is an extremely rare phenomenon. Presenting here a case of gangrenous MD of size 22cmx10cm, with axial torsion at its base due to vascular meso-diverticular band which not only strangulated the Meckel's diverticulum causing gangrene but also strangulated the terminal ileum causing its gangrene too.

Menopause

Women's perception towards menopause.

Karim, Farah; Ghazi, Asifa; Ali, Tahmina; Jabbar, Shazia; Naz, Shama; Aslam, Ruksana

JSP-Journal of Surgery Pakistan International 2013; 18 (3): 143-147

Keywords: Perception; Women; Knowledge; Attitude; Cross-Sectional Studies

Abstract: To determine knowledge and attitude towards menopause among women aged 40 - 60 year presenting with gynecological complaints. Descriptive cross sectional survey. Obstetrics and Gynaecology Unit III, Civil Hospital Karachi from February 2009 to January 2010. Two-hundred premenopausal and postmenopausal women of 40 - 60 year of age were recruited in the study. They were interviewed after informed consent to obtain information about knowledge and attitude towards menopause. Data entered and analyzed by SPSS version 10. Descriptive statistics like frequencies, percentage proportions were calculated to present all categorical variables. The mean age of the participants was 46.8 year, 54.5% were premenopausal and 45.5% postmenopausal, out of them 10% had surgical menopause. 99% were married and 98.5% multiparous and grand multiparous. Only 22% were educated. 94% had heard about menopause, only 30% knew about symptoms, consequences [22%] and treatment of menopause [11%] especially hormone replacement therapy [HRT - 2%]. Ageing and natural transition were considered the common reasons of menopause. Only 21.5% had negative attitude towards menopause due to reason of somatic problems, loss of fertility and femininity. 58.5% considered treatment for menopause unnecessary. Majority of women knew about menopause but lacked knowledge because of limited source of information, education and cultural taboos.

[Determination and comparison of estimated menopausal age based on serum anti-mullerian hormone in women with and without polycystic ovariansyndrome]

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IJEM-Iranian Journal of Endocrinology and Metabolism 2014; 16 (4): 283-289

Keywords: Anti-Mullerian Hormone-blood; Polycystic Ovary Syndrome; Case-Control Studies; Questionnaires

Abstract: Menopause is defined as 12 months of constant amenorrhea in the absence of any pathology. Right now there is no definite test to predict menopause age and the ovarian reserve evaluations are mainly implemented on the basis of sonographic and hormonal measurements. The present study was conducted to determine and compare the menopausal age in women with polycystic ovarian syndrome [PCOS] and non PCOS women based on anti-mullerian hormone [AMH]. The present study is an epidemiologic case- control research in which from among 1019 women aged 20-40 years, 208 PCOS women and 811 normo-ovulatory controls were selected as the case and control groups respectively. Data collection was done through completing questionnaire, clinical examination and lab test measurements. After age and body mass index [BMI] matching, AMH levels in relation to age were displayed in an interactive graph and SPSS software version 21 was used for statistical analysis. Findings showed the mean age and BMI for case and control groups were 29.75 years - 27.1 [kg/m²] and 31.62 years - 26.1 [kg/m²] respectively. Our results indicated significantly higher AMH levels in PCOS cases than in normal controls [P<0.0001]. The estimated menopausal age for PCOS and non PCOS women was 51 and 49 years respectively. To conclude PCOS patients reach menopause two years later than healthy women. If the length of reproductive period in these patients is higher than that the healthy women, it may be possible to use this period for increasing the fertility likelihood.

Mentors

A perspective on mentoring dental students of Dow international dental college [Dow university of health sciences]: a cross-sectional study.

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Pakistan Oral and Dental Journal 2014; 34 (3): 498-502

Keywords: Students, Dental; Perception; Cross-Sectional Studies; Questionnaires

Abstract: The objective was to determine the perception and the effects on mentors regarding mentoring dental students at Dow International Dental College, Karachi; Pakistan. There was a qualitative research study consisting of 16 mentors, in which data collection was done by questionnaire designing. Study of the close-ended questions showed that the majority of the mentors had 6-10 numbers of mentees [81%], but unluckily they did not have any communication with mentees' parents. However, 50% of the mentors gave chief preference to their mentees. They helped their mentees in communicating with people which they did not find easy to approach [69%]. Most of the mentors met their mentees once a week [62%]. All the mentors shared their private phone numbers with their mentees [100%]. Majority of the mentors were aware about their mentees' hobbies [69%]. All the mentors guided their mentees in professional advancement [100%]. If mentees showed misconduct or misbehaved with their mentors in any aspect then most of the mentors counseled them [87.5%]. Unfortunately half of the mentors believed that by so much of effort on mentoring and supervision, their mentees did not show any enhancement in academics. It was concluded that mentoring program was acknowledged by the mentors to be a prosperous and pleasing approach for educating young dental students.

Mesenchymal Stromal Cells

Differentiation of human umbilical cord matrix-derived mesenchymal stem cells into germ-like cells.

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AJMB-Avicenna Journal of Medical Biotechnology 2014; 6 (4): 218-227

Keywords: Umbilical Cord; Germ Cells; In Vitro Techniques; Bone Morphogenetic Protein 4; Tretinoin

Abstract: Mesenchymal Stem Cells [MSCs] are multipotent cells that can be collected from different sources. Under specific conditions, MSCs can be differentiated to tissue specific cells in vitro. Human Umbilical Cord Mesenchymal Stem Cells [hUCMSCs] can easily be harvested and cultured in in vitro conditions. Production of germ cells from mesenchymal stem cells is a very interesting and promising area in the field of reproductive medicine. In the present study, the possible trans-differentiation of hUCMSCs into Primordial like Germ Cell [PGC] was performed in vitro under specific condition. Human umbilical cord mesenchymal stem cells were cultured and expanded in DMEM medium containing 10% FBS. The cultured cells were studied for differentiation ability to adipocytes and osteocytes. Furthermore, MSCs related markers were identified by flow cytometry method. For PGC differentiation, hUCMS cells were cultured in differentiation medium containing Bone Morphogenetic Protein 4 [BMP4] and it was followed by retinoic acid [RA]. Real time PCR and immunocytochemistry analysis were performed to evaluate the expression of PGC specific genes and proteins, respectively. Our results showed that hUCMSCs cultured in the presence of BMP4 and RA are able to trans differentiate in to PGC like cells in vitro. Real time PCR and immunocytochemistry results showed that differentiated cells expressed PGC specific markers after 14 days of culture. Based on these results, it was concluded that hUCMSC may be considered as a promising alternative cell source in reproductive medicine. More studies including laboratory and also animal models are needed to evaluate the functionality of differentiated PGCs before introducing them to clinical applications.

Metabolic Syndrome X

[The association between dairy intake with metabolic syndrome and its components in adolescents: Tehran lipid and glucose study]

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IJEM-Iranian Journal of Endocrinology and Metabolism 2014; 16 (4): 270-282

Keywords: Dairy Products; Adolescent; Lipids; Glucose; Cross-Sectional Studies; Questionnaires

Abstract: Epidemiological studies show that consumption of dairy products plays an important role in prevention and treatment of the metabolic syndrome [MetS]. The objective of this study is to examine the relation between dairy intake with MetS and its components in Tehranian adolescents. In this cross-sectional study, 785 adolescents, aged 10 to 19 years, participants of the fourth phase of the Tehran Lipid and Glucose Study were selected. Usual dietary intake was assessed using a valid semi-quantitative food frequency questionnaire. Total dairy, low fat and high fat dairy, milk, yoghurt and cheese were and anthropometrics, biochemical measurements and blood pressure were assessed. MetS was defined according to the de Ferranti criteria. Mean age of subjects was 14.8 +/- 2.9

years. The prevalence of MetS was 22.2% [girls: 19.5% and boys: 25.2%]. The most prevalent component for MetS among boys was high waist circumference [53.4%] and among girls was low HDL-C [53.1%]. Energy density and intake of protein, total fat, saturated fat, cholesterol, calcium and phosphor were higher in the highest quartile of dairy consumption, than in the lowest quartile. After adjustment for confounders, odds ratios with 95% confidence interval for MetS in the highest quartiles of total dairy, low fat dairy, high fat dairy, milk, yoghurt and cheese were 0.97 [0.57-1.66], 1.44 [0.83-2.49], 0.97 [0.56-1.67], 0.70 [0.42-1.18], 1.62 [0.99-2.64], 0.72 [0.44-1.18] respectively, compared to the lowest quartile. Results of this study do not support the hypothesis that consumption of dairy products protects against MetS and its components.

Methanobrevibacter

Induction of strong and specific humoral and T-helper 1 cellular responses by HBsAg entrapped in the Methanobrevibacter smithii archaeosomes.

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AJMB-Avicenna Journal of Medical Biotechnology 2014; 6 (4): 238-245

Keywords: Hepatitis B Surface Antigens; Immunity, Humoral; T-Lymphocytes, Helper-Inducer; Immunity, Cellular; Archaea; Mice, Inbred BALB C

Abstract: Application of adjuvants with microbial origins is a recently highlighted approach in the vaccinology trials. Archaeosomes are among these microbial compounds with both adjuvant and liposomal activities and features. In the present study, recombinant HBsAg encapsulated into Methanobrevibacter smithii [M. smithii] archaeosomes. Balb/c mice immunized with this compound and humoral and cytokine secretion pattern of immunized models analyzed. Frequency of IFN-gamma secreting cells in the HBsAg-containing archaeosomes group was significantly higher than HBsAg and HBsAg+C/IFA groups [p <= 0.05]. IgG2a titer in the sera of HBsAg-containing archaeosomes group was also significantly higher than this subclass titer in the other groups [p <= 0.05]. Analysis of induced responses revealed the Immunopotentiating characteristics of M. smithii archaeosomes in the induction of T-helper 1 responses according to the dominance of IgG2a subtype and IFN-gamma secreting splenocytes of immunized mice.

Methanol

toxicity

Quiz.

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Journal of Taibah University Medical Sciences 2014; 9 (3): 248-249

Keywords: Alcoholic Intoxication

Mitomycin

Cytomorphological effects of mitomycin C on urothelial cells: eosinophils may be clue to the drug-induced changes.

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Cell Journal [Yakhteh] 2014; 16 (3): 375-376

Keywords: Urothelium-drug effects; Carcinoma, Transitional Cell; Administration, Intravesical; Eosinophils

Abstract: Cytomorphological changes of mitomycin C on urothelial cells may be misinterpreted as a neoplastic process. A 60-year old male patient who was given an eight-week course of intravesical mitomycin C due to non-invasive low grade transitional cell carcinoma. During his follow-up care, the findings of a urine cytology exam were as follows: nuclear enlargement of cells, wrinkled nuclear membranes, little hyperchromasia, pleomorphism, abnormal nuclear morphology and disordered orientation of the urothelium. Furthermore, there were eosinophils nearby the atypical cells. This report aimed at reminding the cytomorphologic changes of mitomycin C may be misinterpreted as carcinoma, so the presence of eosinophils is required to predict the drug-induced changes.

Mitral Valve Stenosis

Perinatal outcome in pregnant patients with moderately severe mitral stenosis.

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JSP-Journal of Surgery Pakistan International 2013; 18 (3): 139-142

Keywords: Pregnancy Outcome; Perinatal Mortality; Pregnancy; Infant, Premature; Infant, Low Birth Weight

Abstract: To determine the frequencies of prematurity, low birth weight babies and perinatal deaths in pregnant women presenting with moderately severe mitral stenosis. Descriptive case series. Department of Obstetrics and Gynecology, Jinnah Postgraduate Medical Centre Karachi, from October 2008 till April 2009. Pregnant women with moderately severe mitral stenosis [mitral valve area <2cm²] fulfilling inclusion criteria, selected through antenatal clinic were included in the study. Perinatal outcome in terms of prematurity, low birth weight, and perinatal mortality were assessed. There were a total of 54 pregnant women with moderately severe mitral stenosis managed during the study period. Preterm babies numbered 22[40.7%], low birth weight babies [<2.5kgs] were found in 17 [31.5%] cases and perinatal mortality seen in 7[13%] cases. Encouraging perinatal outcome was observed in this study which was targeting very high risk cardiac patients.

Molar, Third

Impacted third molar extractions-are we following any recommended guidelines?

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Pakistan Oral and Dental Journal 2014; 34 (3): 426-428

Keywords: Tooth, Impacted; Tooth Extraction; Guidelines as Topic

Abstract: Among the minor oral surgeries done by an oral surgeon and surgeries carried out in the department of oral and maxillofacial surgery all over the world third molar removal is one of the most frequent procedures done. The procedure is accompanied by significant risks, with possible damage to the inferior alveolar and/or lingual nerve being of special concern. Considering these risks of morbidity, it is essential to establish the need of removal. National Institute of Clinical Excellence [NICE] in the United Kingdom introduced guidelines for removal of third molars in 2000, advocating that only pathological third molars should be removed. The following article makes reference to a study carried out in Ireland where third molars are extracted in accordance with NICE guidelines. This study was carried out to assess the compliance of general dental practitioners and oral surgeons to the NICE guidelines. It was noted that 90% of the patients referred for third molars extraction fulfilled the criteria set forth by NICE. A few modifications were carried out in the guidelines provided which were done under scientific evidence based knowledge i.e. Prophylactic extraction of impacted third molars. These guidelines cut down a lot of unnecessary referrals and allowed for organization of the patient load by the secondary referral center, as well as limiting unnecessary surgeries and postoperative complications. It is suggestive that the governing authorities in Pakistan should also implement such guidelines for extractions of impacted third molars.

Mouth Mucosa

pathology

Histopathological audit of oral epithelial lesions.

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Pakistan Oral and Dental Journal 2014; 34 (3): 457-461

Keywords: Biopsy; Carcinoma, Squamous Cell; Papilloma; Retrospective Studies

Abstract: The objective of the study was to see the morphological pattern and frequency of oral epithelial lesions. All oral biopsies received in the Department of Pathology, Basic Medical Sciences Institute, Jinnah Postgraduate Medical Centre Karachi, over a period of 5 years were reviewed and relevant special stains were performed. A total of 685 cases were reviewed. Five hundred twelve [75%] were found neoplastic and 173 [25%] were non neoplastic. Granuloma Pyogenicum was the commonest [65] non neoplastic lesions. In neoplastic lesions, 498 cases were epithelial while 14 cases were diagnosed as non-epithelial lesions. Squamous cell carcinoma was found to be commonest [412 cases] epithelial malignant neoplastic lesion. There was a single case of benign epithelial lesion [Papilloma]. The epithelial precursor lesions include 75[15%] cases of hyperplasia followed by 10[2%] showing mild dysplasia. Oral malignant epithelial lesions were common in 5th decade of life in males and 4th decade in females. In non epithelial lesions, commonest benign lesion was Hemangioma [8] followed by Neurofibroma [1], Neurolemmoma [1], Kaposi Sarcoma [1] and single case of Lymphoma. Squamous cell carcinoma was the commonest malignant epithelial lesion. Granuloma pyogenicum was the commonest non neoplastic lesion of oral cavity.

Mouth Neoplasms

pathology

Histopathological patterns of oral squamous cell carcinoma.

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Pakistan Oral and Dental Journal 2014; 34 (3): 449-451

Keywords: Carcinoma, Squamous Cell; Retrospective Studies; Cross-Sectional Studies; Biopsy

Abstract: The objective of this study was to provide a baseline data on the pattern of oral squamous cell carcinoma in Karachi. The retrospective cross sectional study was conducted. The patients of oral squamous cell carcinoma were examined from January 2007- December 2010 at oral maxillofacial department, Darul Sehat Hospital Karachi. All retrievable case files were obtained and necessary data were extracted regarding age, gender, site and histological type. All cases were clinically examined and provisionally diagnosed. Biopsy was taken from the lesions and tissues were fixed in 10% buffered formalin and submitted to histopathologic department for histological confirmation. 62% of males and 38% females were diagnosed with squamous cell carcinoma. 30% were observed in age group of 41-50 years old. 45% of squamous cell carcinoma were on buccal mucosa. OSCC was most common of all oral malignancies of which most were in the older age group. Serious thought should be given to prevention and early detection.

Music

Mozart, music and medicine.

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Medical Principles and Practice 2014; 23 (5): 403-412

Keywords: Medicine; Music Therapy; Emotions; Positron-Emission Tomography; Magnetic Resonance Imaging; Neurobiology

Abstract: According to the first publication in 1993 by Rauscher et al. [Nature 1993;365:611], the Mozart effect implies the enhancement of reasoning skills solving spatial problems in normal subjects after listening to Mozart's piano sonata K 448. A further evaluation of this effect has raised the question whether there is a link between music-generated emotions and a higher level of cognitive abilities by mere listening. Positron emission tomography and functional magnetic resonance imaging have revealed that listening to pleasurable music reactivates cortical and subcortical cerebral areas where emotions are processed. These neurobiological effects of music suggest that auditory stimulation evokes emotions linked to heightened arousal and result in temporarily enhanced performance in many cognitive domains. Music therapy applies this arousal in a clinical setting as it may offer benefits to patients by diverting their attention from unpleasant experiences and future interventions. It has been applied in the context of various important clinical conditions such as cardiovascular disorders, cancer pain, epilepsy, depression and dementia. Furthermore, music may modulate the immune response, among other things, evidenced by increasing the activity of natural killer cells, lymphocytes and interferon-gamma, which is an interesting feature as many diseases are related to a misbalanced immune system. Many of these clinical studies, however, suffer from methodological inadequacies. Nevertheless, at present, there is moderate but not altogether convincing evidence that listening to known and liked music helps to decrease the burden of a disease and enhances the immune system by modifying stress.

Myeloproliferative Disorders

blood

JAK2 V617F mutation in myeloproliferative neoplasms.

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Assiut Medical Journal 2013; 37 (1): 127-134

Keywords: Jarus Kinase 2-blood; Mass Screening

Abstract: Myeloproliferative neoplasms [MPNs] are clonal hematopoietic stem cell Malignancies characterized by excessive production of blood cell :they include polycythemia vera [PV],essential thrombocythemia [ET],Myelofibrosis [MF] and chronic myeloid leukemia [CML].A somatic mutation in the Janus Kinase gene on chromosome 9: a guanine to thymine point mutation at nucleotide 1849 in exon 14, results in substitution of valine to phenylalanine at codon 617 this mutation contributes to the expansion of the MPN clone by increasing tyrosine phosphorylation activity providing hematopoietic [dh with a proliferative and survival advantage. The present work aimed to study the expression of JAK2 V617 F mutation by Real time PCR in myeloproliferative neoplasms patients. This study included /5 MPNs patients ;19 cases were diagnosed as

PV 10 cases were diagnosed as ET16 cases were diagnosed as MF .20 age and sex matched individuals were also included as a control group. In MPNs patients, JAK2 mutation was expressed in 62%, in P V, ET and MF patients 79%, 60% and 44% of cases had JAK2 mutation respectively. There was highly significant relationship between JAK2 mutation expression and patients' laboratory findings as regards hemoglobin level, total leucocytic count in PV positive JAK2 mutation patients and platelets count in ET positive JAK2 mutation patients. JAK2, mutation expression was associated with increased risk of MPNs .We concluded from this study that JAK2 mutation plays a fundamental role in the pathogenesis and development of MPNs ,and its detection is very useful to confirm the diagnosis and help in treatment and follow up of MPNs patients.

Myocardial Infarction

drug therapy

Recovery response of melatonin in induced myocardial infarction in adult male rabbits.

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Assiut Medical Journal 2013; 37 (1): 187-200

Keywords: Heart Arrest, Induced-methods; Cardis protective Agents; Melatonin-therapeutic uses; Treatment Outcome; Oxidative Stress; Rabbits; Male

Abstract: Because myocardial infarction [MI] is a major cause of morbidity and mortality worldwide, protecting and remedy of the heart from the ischemia is the focus of intense research. This study aims to investigate the effects and the possible mechanism of melatonin in isoproterenol [ISO] induced acute MI in rabbits by studying electrocardiography [ECG], its angiogenic role, anti-inflammatory and antioxidants effects as well as histopathological changes of the cardiac muscle. A total of 50 rabbits were randomly divided into 5 groups, each of which were 10 rabbits: [I] Control group: received vehicle only, [II] Melatonin group: received melatonin in a dose of 10 mg/kg by intraperitoneal injection [i.p], [III] MI group: MI was induced with ISO [85 mg /kg] administered subcutaneously twice at an interval of 24 h. [IV] Prophylactic group: melatonin injection was done for 7 days and induction of infarction with ISO was done at the 6[th] and 7[th] day of the experiment and [V] Therapeutic group: Injected with ISO in the 1[st] and 2[nd] day and melatonin was given for 7 days starting at day one of induced infarction. The following parameters were evaluated: ECG, heart weight/ body weight [HW/BW] ratio, serum levels of cardiac marker enzymes [creatinine kinase-MB [CK-MB], lactate dehydrogenase [LDH] and cardiac troponin-T [cTnT].], inflammatory markers [serum tumor necrosis factor- α [TNF α] and cardiac myeloperoxidase [MPO] enzyme], cardiac total peroxides level, total antioxidant capacity [TAC], oxidative stress index [OSI], angiogenic markers [cardiac vascular endothelial growth factor [VEGF] and inducible nitric oxide [iNO]], and histopathological changes of the cardiac muscle. ISO induced MI rabbits showed significant pathological changes in the ECG pattern [elevated ST-segment and decreased R amplitude], significant increased HW/BW ratio, significant increased serum levels of cardiac marker enzymes [CK-MB, LDH and cTnT]. Also, inflammatory markers [serum TNF- α and cardiac MPO], angiogenic markers [VEGF and iNO], total peroxides and OS I were significantly higher whereas TAC were significantly lower in MI group as compared to control group. The histopathological findings of the myocardial tissue evidenced myocardial damage in ISO induced MI rabbits. Administration of melatonin in prophylactic and therapeutic groups revealed that melatonin has an efficient anti-inflammatory and antioxidant activity, reduced the cardiac marker enzymes and the pathological ECG patterns, ameliorated the increase in the HW/BW ratio and augmented myocardial angiogenesis. Also, decreased myocardial damage was evidenced by the histopathological findings with melatonin administration. The mending effects of melatonin in prophylactic group were more prominent than in the therapeutic group. The present study clearly demonstrated the cardioprotective effects of melatonin in a model of induced myocardial infarction which could be due to its anti-inflammatory, membrane stabilizing and free radical scavenging properties. Interestingly, this study is the first to prove the cardioprotective effect of melatonin via its angiogenic effect. Thereby, it should be considered for prophylactic and as a novel adjunctive therapy for attenuating ischemic myocardial damage.

epidemiology

A 5-year trend of myocardial infarction, hypertension, stroke and diabetes mellitus in gender and different age groups in Erzurum, Turkey.

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Journal of Taibah University Medical Sciences 2014; 9 (3): 198-205

Keywords: Hypertension-epidemiology; Stroke-epidemiology; Diabetes Mellitus-epidemiology; Gender Identity; Age Factors; Sex Factors; Risk; Coronary Artery Disease-epidemiology; Retrospective Studies

Abstract: To investigate the trend and risk of coronary artery diseases [CAD], myocardial infarction [MI], hypertension [HT], stroke, cerebrovascular disease [CVD], and diabetes mellitus type 2 [DMT2] as regard to different age groups and gender. We retrieved retrospectively almost 5-year data [January 1st 2007 through December 31st 2011] from the Ataturk university hospital that has database registry system based on International Classification of Diseases [ICD-10]. We included 88,293 patients in this analysis. A logistic-regression model was

used to assess the effect of groups of variables on the associations of interest [sex and its interaction with age] with calculation of odds ratios with their 95 percent confidence intervals. Out of 88,293 patients, 45% [39,514] were females and mean age was 56.86 +/- 16.23. The females were dominant [P = 0.001] in all age groups in diabetes type 2. Whereas in case of hypertension, CAD and strokes except in young age groups males were more prominent. We found that females had high risk 1.54 [95% CI, 1.50-1.59] for diabetes mellitus while for other cardiovascular disease females had lower risk except a slightly high risk for overall CVD [1.01; 95% CI, 0.93-1.09]. The results demonstrated that for diabetes type 2 and young age group for other cardiovascular diseases females are dominant and have higher risk.

Myringoplasty

Temporalis fascia versus cartilage graft in myringoplasty.

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Jordan Medical Journal 2014; 48 (2): 113-120

Keywords: Cartilage; Fascia; Prospective Studies

Abstract: The aim of the present study is to compare the surgical and audiological results of temporalis fascia versus conchal cartilage in myringoplasty. A randomized prospective study concerned with 40 patients for whom myringoplasty have been done. These patients were collected from the Out Patient Department of ENT at Al-Jamhory Teaching Hospital, Mosul/IRAQ from January 2009 to January 2012. Patients were randomly assigned into two groups; in the first group temporalis fascia graft was used [18 patient] while conchal cartilage graft was used in the second group [22 patients]. Our study included 40 patients, 23 males and 17 females. The average age of our patients is 28.4 years with a range from 13- 55 years. Surgical success rates for the first and second groups are 77.78% and 95.45%, respectively. There is 19.4 dB improvement in mean hearing threshold in fascia group, compared to 15.2 dB improvement in cartilage group, giving an average of 17 dB improvement in mean hearing threshold of the total series. There was no significant difference neither in surgical success rate nor in hearing gain between the two groups.

Neoplasms

World cancer day 2014: "increasing the awareness".

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Cell Journal [Yakhteh] 2014; 16 (3): 383-384

Keywords: World Health Organization; Awareness

Abstract: World Cancer Day [WCD] is celebrated on February 4th each year around the world to remind the efforts done by united nations, World Health Organization [WHO], and other governmental and non-governmental health organizations with the aim of delivering the real message about cancer and its treatments to fight against this fatal disease through uniting all the people on global basis [1-4]. In brief, cancer is a large group of different disorders involving unregulated cell growth. In malignancy, cells divide and grow uncontrollably to form malignant tumors and to invade neighboring parts of the body. The cancer tumor may spread to more distant parts of the body through blood or lymphatic systems [5-8]. It has been observed that most of the cancer cases and related deaths happen in less developed countries that this situation is expected to get worse by 2030. Therefore, it is very crucial to get control over such condition throughout the world. Furthermore, WCD aims to save millions of preventable deaths every year by raising alertness and by educating people about malignancy, while forcing the governments throughout the world to take action against this disease [2-8]. The day is also a key chance for cancer patients to ensure that world leaders stick to the promises they made at the United Nations Summit for reducing the cancer and its impacts. During this particular occasion, participants try to promote healthy lifestyles, balanced diet, regular physical activity, weight management, as well as using antioxidants in order to diminish the risk of malignancies [1-8]. Furthermore, this day is celebrated to plan certain new strategies and to imply various new programs in order to make people aware of this disorder. WCD is also celebrated to make non-patient people aware about the preventive methods and the risk factors of cancer [2-8]. The theme of WCD of 2014 is "Debunk the Myths" because some people believe that if they contact or live with a patient who has cancer, they would get cancer as well. The day is, therefore, distinguished to eradicate such types of the social myths [5-13] and to make certain concepts about different aspects of the malignancy, such as its symptoms, causing factors and treatment [1, 3, 9]. Furthermore, on this day, some of activities are organized to indicate that cancer patients should not be treated distinctly, while they are entitled to the same rights as normal people in the society [14-19]. Although they have less chances of existence, they should be fulfilled their wishes by their relatives. It should not make them sense that the treatment remedies are given them for existence as they are dying. In this regards, it is very important to make them feel better like a normal person. They should be also prepared a normal environment in their home and society. It is essential that normal people avoid being overly sympathetic to them [20-27].

Neuroblastoma

genetics

High expression of the wild type of ALK gene is associated with favorable prognosis in human neuroblastomas.

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Assiut Medical Journal 2013; 37 (1): 31-44

Keywords: Gene Expression; Polymerase Chain Reaction; Prognosis

Abstract: Anaplastic lymphoma kinase [ALK] gene is a transmembrane receptor tyrosine kinase initially discovered as part of the NPM-ALK fusion protein, resulting from a chromosomal rearrangement frequently associated with anaplastic large cell lymphomas. ALK is a novel dependence receptor and normally expressed in the developing and adult nervous system. The mutated ALK gene has been identified as a potential oncogene in human neuroblastomas [NBLs]. However, the frequency of mutation is only 5-8%. The present study was performed to examine the level of ALK mRNA gene expression in primary neuroblastoma patient tumor tissue samples and to assess the relation between ALK gene expression and other previously reported prognostic factors of neuroblastoma. Methods: Quantitative real-time RT-PCR was applied to examine the expression level of ALK mRNA. and its prognostic value in primary neuroblastoma patients was analyzed by the statistical methods. Immunohistochemical staining was used to check the expression level of ALK proteins. In analysis of 79 patients with sporadic primary neuroblastoma, we found that high expression level of ALK mRNA was significantly associated with Shimada's pathological classification [$p=0.0000$], patient's age [$p=0.0000$], MYCN amplification status [$p=0.0000$], tumor stage [$p=0.0000$][and] TrkA expression level [$p=0.0390$], all these factors are known to be associated with good prognosis in neuroblastoma. Of interest, immunohistochemical study revealed positive ALK in ALK-amplified tissues and cell lines. Furthermore, mutation results showed that ALK mutation represented about 4.6% of cases and ALK amplification represented about 1.5% of cases. So that mutations not only occur among unfavorable cases with low ALK but also in favorable cases with high ALK expression. Our findings suggested that, high expression of wild type ALK is associated with good prognosis of NBL and that, as the mutation and amplification of ALK are reported to play an important role in NBL, also the expression level of wild type ALK gene might also have some function in cell growth as well as differentiation in neuroblastoma.

Noise, Occupational

The risk of noise on the hearing levels of individuals working in orthotic and prosthetic sector.

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Jordan Medical Journal 2014; 48 (2): 71-80

Keywords: Noise; Hearing; Orthotic Devices; Prostheses and Implants; Audiometry; Hearing Loss, Noise-Induced

Abstract: To identify the effect of noise exposure on the hearing threshold of subjects working in the sector of orthotics and prosthetics. The hearing threshold of all subjects was tested using a screening audiometer based on the procedure recommended for industrial audiometry. Subjects working in the sector of orthotics and prosthetics appeared to have noise induced hearing loss as indicated by their hearing threshold and/or by the presence of notch on their audiograms at 4 or 6 kHz. It was also found that longer duration of noise exposure appears to result in worse hearing threshold. Our results indicate that subjects working in the sector of orthotics and prosthetics are exposed to hazardous noise levels that have negative effects on their hearing. This is why the implementation of a hearing conservation program that prevents further damage for the hearing of those subjects becomes crucial.

Nose Deformities, Acquired

rehabilitation

Prosthetic rehabilitation of traumatic nasal defect: a case report.

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Pakistan Oral and Dental Journal 2014; 34 (3): 437-439

Keywords: Nose-injuries; Prostheses and Implants; Rehabilitation; Wounds and Injuries; Reconstructive Surgical Procedures

Abstract: Trauma, tumor resection, and congenital deformities results in facial defects.¹ These defects are highly displeasing and cause a considerable psychological stress to patients. Site and size of defect, etiology of tissue loss and age of the patients are the factors which are to be considered when planning for reconstruction. Some people may not be medically fit for long reconstructive surgeries or may not wish to undergo surgery. Here is the case report of the patient who preferred prosthetic nasal rehabilitation rather plastic reconstructive surgery.

Obesity

[Inefficient education and process of obesity in Tehranian adolescents: a qualitative study]

Jalali Farahani, S.; Amiri, P.; Ghofranipour, F.; Ahmadi, F.; Hosseinpanah, F.; Hooman, H.A.

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IJEM-Iranian Journal of Endocrinology and Metabolism 2014; 16 (4): 262-269

Keywords: Adolescent; Health Education; Evaluation Studies as Topic; Life Style

Abstract: This study aimed to determine inefficiencies in current educational programs for promoting of healthy lifestyles and prevention of obesity from the perspective of adolescents and mothers. This was a qualitative study conducted based on a grounded theory approach. To collect data, 23 personal interviews and 12 semi-structured focus group discussions were conducted with overweight/obese adolescents and mothers who had at least one overweight/obese child. To maximize the variation of participants' experiences with different socio-economic backgrounds, two demographically diverse areas from the north and south of Tehran were selected and followed with theoretical sampling. All the interviews and focus group discussions were audio recorded and transcribed verbatim. Data collection and analysis were done simultaneously, using the Strauss and Corbin analysis method. In the current study, inefficient education was explored using two main themes including "Single dimensional curriculum of schools" and "Inefficient public education". The single dimensional curriculum of schools was found to be characterized by "lesson-based curriculum" and "burdensome educational programs" and the inefficient public education was characterized by "inappropriate content", "lack of comprehensive educational program", "inappropriate ways of messaging" and "contradictory messages". Based on the findings of this study, "single dimensional curriculum of schools" and "Inefficient public education" were the main correlates of inefficient education in our society, which led to obesity-related behaviors and consequently excessive weight gain in Tehranian adolescents. The results of this study may be effective in prioritizing and designing health promotion programs aimed at promoting healthy lifestyles and prevention of obesity in children and adolescents.

Oncorhynchus mykiss

growth and development

[A study on the effects of supplementary L-arginine and L-ornithine on the growth indices in rainbow trout, *Oncorhynchus mykiss*]

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IJEM-Iranian Journal of Endocrinology and Metabolism 2014; 16 (4): 290-300

Keywords: Arginine; Ornithine; Growth; Insulin-Like Growth Factor I

Abstract: Fish are useful models for physiological studies in which using nutritional, growth and hormonal indices can lead to the understanding of several biological mechanisms in vertebrates. In this study, the effects of the addition of two amino acids, L-arginine and L-ornithine, to a commercial feed on the growth indices and the blood levels of insulin-like growth factor-I [IGF-I] of rainbow trout, *Oncorhynchus mykiss* were examined. The fish [average initial weight 45 +/- 4 g] were fed for 8 weeks with one of the following 4 dietary treatments: Commercial trout diet supplemented with 2% L-arginine-[T1] 2% L-ornithine-[T2] 2% L-arginine + 1% L-ornithine-[T3]; 3% L-arginine + 1% L-ornithine-[T4] and the commercial feed without addition of the amino acids [controls]. According to the results, maximum weight gain [268.94 +/- 5.84%] and specific growth rate [SGR] [2.33 +/- 0.05% day⁻¹] were observed in the fish of group T3, while maximum hepatosomatic index [HSI] [1.49 +/- 0.04%] was recorded in group T4. These amounts were significantly higher than their counterpart indices of the control group [P<0.05]. Supplementing the feed with the amino acids, overall, increased IGF-I levels throughout the study period. At the end of the eighth week, in the T3 and control groups maximum and minimum IGF levels were 1180 pg/ml and 980.35 pg/ml respectively. Results of this study showed the positive effects of providing fish diet with additional amino acids, especially a combination of arginine and ornithine, on growth promotion in rainbow trout.

Organ Transplantation

Ethical issues of transplanting organs from transgenic animals into human beings.

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Cell Journal [Yakhteh] 2014; 16 (3): 353-360

Keywords: Animals, Genetically Modified; Ethics; Transplantation, Heterologous

Abstract: One of the most important applications of transgenic animals for medical purposes is to transplant their organs into human's body, an issue which has caused a lot of ethical and scientific discussions. We can divide the ethical arguments to two comprehensive groups; the first group which is known as deontological critiques [related to the action itself regardless of any results pointing the human or animal] and the second group, called the consequentialist critiques [which are directly pointing the consequences of the action]. The latter arguments also can be divided to two subgroups. In the first one which named anthropocentrism, just humankind has inherent value in the moral society, and it studies the problem just from a human-based point of view while in second named, biocentrism all the living organism have this value and it deals specially with the problem from the animal-based viewpoint. In this descriptive-analytic study, ethical issues were retrieved from books, papers, international guidelines, thesis, declarations and instructions, and even some weekly journals using keywords related to transgenic animals, organ, and transplantation. According to the precautionary principle with the strong legal and ethical background, due to lack of accepted scientific certainties about the safety of the procedure, in this phase, transplanting animal's organs into human beings have the potential harm and danger for both human and animals, and application of this procedure is unethical until the safety to human will be proven.

Orthodontic Retainers

A reversible diagnostic method for occlusal, esthetic and functional evaluation of full arch re-construction: a novel approach using thermoplastic retainers.

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Pakistan Oral and Dental Journal 2014; 34 (3): 524-527

Keywords: Occlusal Splints; Dental Occlusion; Esthetics, Dental; Orthodontic Appliances, Functional; Dental Arch; Diagnostic Techniques and Procedures; Mouth Rehabilitation

Abstract: Patients presented for extensive tooth wear frequently need elaborated case study and analysis for all occlusal, muscular and TMJ factors before final and definitive treatment is commenced. This includes thorough and comprehensive assessment of the occlusal scheme. A preoperative visualization of the final esthetic results in vivo is essential before deciding to go for a particular treatment option, especially when tooth preparation is part of the treatment plan. The two major factors that concern patients with extensive tooth surface loss are increasing occlusal vertical dimension and esthetic modification to the present situation, where some patients cannot visualize the new situation even when seen on animated software or modified photographs for illustrated purposes. In this paper the authors have discussed a reversible and versatile method for esthetic and occlusal assessment for cases of severe tooth wear, which would allow patients to "practice" their new treatment in reality, and allow them to evaluate its functional and esthetic merits before deciding to choose that particular treatment option. In this diagnostic method, the masticatory system is allowed to adapt to the new treatment approach easily with the option of modifications at all levels or even cancelling the whole treatment without any adverse effect on the teeth or the masticatory apparatus.

Ovarian Follicle

Vitrification and subsequent in vitro maturation of mouse preantral follicles in presence of growth factors.

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Cell Journal [Yakhteh] 2014; 16 (3): 271-278

Keywords: Vitrification; In Vitro Oocyte Maturation Techniques; In Vitro Techniques; Mice; Intercellular Signaling Peptides and Proteins; Fibroblast Growth Factors; Epidermal Growth Factor

Abstract: Cryopreservation of ovarian tissue or follicles has been proposed as an alternative method for fertility preservation. Although successful vitrification of follicles has been reported in several mammalian species, the survival rate is generally low. The aim of this study was to investigate the effects of fibroblast growth factor [FGF] and epidermal growth factor [EGF] on in vitro preantral follicle development after vitrification. In this experimental study, preantral follicles with diameter of 150-180 microm were mechanically isolated from ovaries of 18-21 days old NMRI mice. Follicles were vitrified and warmed, then cultured in alpha-minimal essential medium [alpha-MEM] without growth factor supplementation as control group [group I], while supplemented with 20 ng/ml FGF [group II],

20 ng/ml EGF [group III], and 20 ng/ml FGF +20 ng/ml EGF [group IV]. After 12 days, human chorionic gonadotrophin [hCG]/EGF was added to culture medium, and after 18-20 hours, the presence of cumulus oocyte complexes [COCs] and oocyte maturation were assessed. The chi-square [chi2] test was used to analyze survival and ovulation rates of the follicles. Our results showed that the rate of metaphase II [MII] oocytes in FGF group increased in comparison with control and other treatment groups [$p < 0.027$], but there was no difference between control with EGF and EGF+FGF groups in oocyte maturation rate [$p > 0.05$]. There was a significant decrease in survival rate of follicles in EGF+FGF group in comparison with other groups [$p < 0.008$]. After in vitro ovulation induction, the follicles in EGF group showed a higher ovulation rate [$p < 0.008$] than those cultured in other groups. FGF has beneficial effect on oocyte maturation, and EGF increases COCs number in vitro. Combination of EGF and FGF decreases the number of survived follicles.

Ovariectomy

adverse effects

Some immunological responses to ovariectomy and aging in female rats.

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Assiut Medical Journal 2013; 37 (1): 217-228

Keywords: Cytokines-immunology; Aging; Age Factors; Rats; Female; Interleukin-6-blood

Abstract: Menopause is a normal biological process that occurs as part of aging in women and includes changes resulted from end of reproductive period. We studied the changes of cytokines serum levels with aging and ovariectomy in rats. In addition, we investigated if these changes induced by ovariectomy reverted by estrogen receptor selective agonists. Fifty White Albino female rats were divided into 5 groups: sham-operated group, ovariectomized [OVX-C] group, a group of ovariectomized rat treated with ER alpha agonist [OVX-ERalpha], a group of ovariectomized rat treated with ER beta agonist [OVX-ERbeta], and an old group. After 6 weeks, blood samples were taken for measurement of tumor necrosis factor alpha [TNF-alpha], interleukin-4 [IL-4], IL-6, IL-10 and body and uterine wet weights were measured. The body weight gain of OVX-C and old rats was significantly higher than the sham-operated group and significantly decreased in OVX-ERa agonist group while, OVX-ERbeta agonist group showed no significant change in the body weight gain compared to OVX-C group. Uterine wet weight, serum levels of IL-4 and IL-10 of OVX-C group and aged rats were significantly lower than the sham-operated group. However, they were significantly higher in OVX-ERalpha while, OVX-ERP agonist showed no significant change in these data compared to OVX-C group. Serum levels of TNF- alpha and IL-6 were significantly higher in the OVX-C group rats and aged rats compared to the sham-operated group and significantly lower in OVX-ERalpha rats and OVX-ERbeta rats compared to the OVX-C group. We concluded that there was relationship between ovarian function and immune system as indicated by pro-inflammatory and anti-inflammatory cytokine imbalance by aging and ovariectomy. ER agonists corrected, although to different degrees, changes induced by the ovariectomy.

Overweight

Impact of maternal overweight and obesity on perinatal outcomes.

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Jordan Medical Journal 2014; 48 (2): 121-131

Keywords: Obesity; Perinatal Care; Prevalence; Pregnancy; Pregnancy Outcome; Prospective Studies; Body Mass Index; Mothers

Abstract: Maternal obesity adversely affects perinatal outcome through increasing rates of hypertensive disease during pregnancy, diabetes, cesarean section and fetal macrosomia. To investigate the prevalence of prepregnancy over weight and obesity and their impact on pregnancy and perinatal outcomes in Jordan. A prospective study comparing prepregnancy BMI categories with pregnancy and perinatal outcomes. University teaching hospital. Singleton term babies [>37 weeks] born in the year 2009. A total of 2129 newborns were categorized according to their mothers self reported body mass index [BMI] into three groups [normal, over weight and obese]. Multivariate regression analysis was performed. The main outcomes were pregnancy induced hypertension, gestational diabetes, mode of delivery, birthweight, neonatal admission and death. A total 2129 newborns were identified. The incidence of overweight and obese mothers was 33.6% and 12.5%, respectively. In comparison to mothers with normal BMI, overweight and obese mothers were older and more likely to be multiparous. Their pregnancy was at a significantly higher risk for pregnancy-induced hypertension, gestational diabetes, Cesarean delivery, induction of labor, giving birth to a macrosomic baby and neonatal admission. Obese women were less likely to have instrumental delivery. Babies born to overweight and obese mothers were not at a higher risk of having other short adverse perinatal outcomes. Increasing prepregnancy BMI was associated with increased risk of adverse outcomes. Effective Interventional programs are important implications for health policy for counseling mothers during antenatal, postnatal and primary health care visit.

Parabens

toxicity

Subchronic toxicity of propyl paraben in adult male rats.

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EJB-Egyptian Journal of Biochemistry and Molecular Biology [The] 2013; 31 (1): 1-20

Keywords: Food Preservatives; Testis-pathology; Liver-pathology; Testosterone-blood; Estradiol-blood; Endocrine Disruptors; Rats

Abstract: In the current study, daily per os administration of propyl paraben [n-propyl-p-hydroxybenzoate] to adult male rats for four consecutive weeks induced severe hepatotoxicity as revealed by the significant elevation in serum marker enzymes along with a significant decrease in serum protein and its fractions. Furthermore, propyl paraben administration disturbed steroid hormones balance by suppressing serum testosterone level, with a concomitant increase in serum estradiol and an ultimate decrease in testosterone/estradiol ratio. Hepatic and testicular toxicity was further attributed to oxidative stress induction, since propyl paraben altered the oxidant/antioxidant balance in both tissues. Signs of toxicity and histopathological changes in the liver and testes were observed by light microscopy of haematoxylin and eosin-stained sections. In conclusion, our data demonstrate the potency of propyl paraben as an endocrine disruptor to induce disturbances in normal steroid balance in adult male rats. In addition, the induced oxidative stress represents a common mechanism of propyl paraben toxicity in hepatic and testicular tissues.

Periodontal Diseases

Periodontal health and oral hygiene status during the second trimester and its effects on pregnancy outcomes - preterm and low birth weight.

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Pakistan Oral and Dental Journal 2014; 34 (3): 481-485

Keywords: Periodontitis; Oral Hygiene; Pregnancy Trimester, Second; Pregnancy; Pregnancy Outcome; Infant, Premature; Infant, Low Birth Weight

Abstract: Periodontal disease is one of the most prevalent chronic diseases known to mankind. Recently there have been studies that suggest a possible inter-relationship between periodontal disease and systemic diseases including cardiovascular disease, diabetes, and adverse pregnancy outcomes including pre-term and low birth weight deliveries. However, most of these studies are carried out in the western part of the world and the results may not be directly applicable to the population in Pakistan. This research is an exploratory study that aims to find the relationship between periodontal disease and adverse pregnancy outcomes including preterm and low-birth weight in Pakistani population. The periodontal status in forty-five medically healthy pregnant females aged less than 35 years during the second trimester of pregnancy were assessed. A detailed periodontal examination, including plaque score, bleeding score, probing pocket depth and clinical attachment loss were recorded. Postpartum data was collected and the outcomes were recorded as pre-term [<32 weeks of gestation], term [on or >37 weeks], post term [>40 weeks] and low birth weight [< 2.5 kg]. Pregnant females in the second trimester had an average plaque score of 84% [95% C.I. 51.1-87], average bleeding on probing score of 66.3% [95% C.I.= 60.4-72.2], and average clinical attachment loss of 2.5 mm [95% C.I.= 2.35-2.6]. Thirty-four participants delivered on or term [>37 weeks] and 8 participants delivered pre-term [<32 weeks of gestation]. Only one patient delivered post term [>40 weeks]. This exploratory study highlights that the oral hygiene and periodontal status of these female patients in the second trimester of pregnancy is poor. These patients had high plaque scores, marked gingival inflammation as evidenced by high gingival bleeding score, and were diagnosed with mild generalized periodontitis. None of the periodontal variables had a significant correlation with pre-term or post-term pregnancy outcomes [$p>0.05$].

therapy

Role of periodontal therapy in type II diabetes mellitus.

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Pakistan Oral and Dental Journal 2014; 34 (3): 486-490

Keywords: Diabetes Mellitus, Type 2; Hemoglobin A, Glycosylated; Blood Glucose; Oral Hygiene

Abstract: The purpose of this study was to observe a gender based effect of periodontal therapy on glycaemic control of type II diabetes mellitus. This Interventional study was conducted on one hundred four patients suffering from type II diabetes mellitus, both gender were included from twenty five to sixty five years of age. Periodontal parameters were calculated using the community periodontal index need, bleeding on probing, tooth mobility and furcation involvement. The glycaemic status was evaluated by determining glycosylated haemoglobin [HbA1c] levels at base line before non-surgical periodontal therapy and three months after receiving the treatment. All the examination and data collection were carried out by a single examiner. The data were analysed using the SPSS version 15. It was conducted that the periodontal parameters along with the reduction in the results of glycaemic parameters significantly improved [p 0.005] and more pronounced in female patients than male patients. It was concluded that the severity of the periodontal disease is the most important risk factor related to poor glycaemic control.

Peritonitis

Non appendicular perforation peritonitis; spectrum and management outcome "experience at peripheral teaching hospitals".

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 613-620

Keywords: Peptic Ulcer Perforation; Duodenal Ulcer-complications; Appendix; Intestinal Perforation; Disease Management; Hospitals, Teaching; Outcome Assessment [Health Care]; Retrospective Studies

Abstract: To evaluate the spectrum of non-appendicular perforation peritonitis and their management outcome in a peripheral teaching hospitals. Retrospective descriptive, Interventional. Surgical Department Aziz Bhatti Shaheed [Teaching] Hospital Nawaz Sharif Medical College University of Gujrat and Surgical Department Islam Medical College Sialkot. February 2011 to June 2013. All the patients with clinical diagnosis of Acute Peritonitis were included, however patients with peritonitis secondary to perforated appendix and traumatic GIT perforations were excluded from study when found preoperatively. Total 100 patients with acute peritonitis were operated. 79 patients were male and 21 were female. Mean age was 39.9 years, youngest patient was a 12 year old boy whereas oldest was 73 year old. Perforated duodenal ulcer was the commonest cause of peritonitis seen in 42 cases followed by intestinal tuberculosis 18%. Enteric gut perforation was seen in 17% cases. Mortality was 9% and sepsis and multi organ failure was the main cause of death. Management of perforation peritonitis is a complex and demanding. We can avoid this complication by primary prevention, adequate and timely treatment of diseases like Peptic ulcer, tuberculosis and Typhoid fever which are the commonest cause of GUT perforations in Eastern region/ Tropical countries. Early diagnosis of acute peritonitis, adequate efficient resuscitation and early exploration preferable within six hours is the key to reduce both morbidity and mortality these patients.

Spontaneous bacterial peritonitis; frequency of asymptomatic in patients of liver cirrhosis.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 606-612

Keywords: Bacteria; Asymptomatic Infections; Liver Cirrhosis; Ascites; Cross-Sectional Studies

Abstract: Cirrhosis of liver is a chronic process characterized by structurally abnormal nodules in the liver, with diffuse generalized increased fibrous tissue in the liver. Spontaneous bacterial peritonitis [SBP] is a serious complication occurring in 10 to 30% of patients hospitalized with cirrhotic ascites. Assess the frequency of SBP in asymptomatic patients of liver cirrhosis. Cross sectional study. Hepatitis clinic medical unit- 1 Services hospital, Lahore. One year. Total 100 patients of cirrhotic ascites. Ten patients were found to have SBP [10%, 95% CI, 4.1 to 15.9] and 90 patients were found to have no SBP [90%, 95% CI, 84.1 to 95.9]. Seven SBP patients [70%] had pyuria [Fisher's exact test p-value < 0.01], and abnormal liver function tests [Chi square-value < 0.01]. We concluded that 10% of asymptomatic patients with cirrhotic ascites had SBP. SBP patients had significantly abnormal liver function tests and pyuria.

Phantoms, Imaging

Design of homogeneous and heterogeneous human equivalent thorax phantom for tissue inhomogeneity dose correction using TLD and TPS measurements.

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International Journal of Radiation Research 2014; 12 (2): 169-178

Keywords: Thorax; Thermoluminescent Dosimetry; Thoracic Neoplasms

Abstract: The purpose of this study is to fabricate inexpensive in-house low cost homogeneous and heterogeneous human equivalent thorax phantom and assess the dose accuracy of the Treatment Planning Systems [TPS] calculated values for different lung treatment dosimetry. It is compared with Thermoluminescent

Dosimeter [TLD] measurement. Homogeneous and heterogeneous thorax human equivalent phantoms were fabricated using bee's wax [density=0.99 g/cm³] as a tissue simulating material, with inserts of cork [density=0.2 g/cm³] and Teflon [density=2 g/cm³] as lung and spine simulating material respectively. Lithium fluoride [LiF] TLD capsules were irradiated for different thoracic tumor treatment techniques using the locally fabricated homogeneous and heterogeneous phantoms. The 3D TPS calculated values of homogeneous and heterogeneous phantoms were compared with TLD measured values. Experiments were carried out for different thoracic tumour treatment techniques for small and larger field sizes and also with and without wedge for Cobalt - 60 photon beams. Plato TPS were used to calculate the inhomogeneity for the homogeneous and heterogeneous phantoms. TLD and 3D TPS calculated values were found to have deviation of +/- 5%. Both the homogeneous and heterogeneous phantoms has proved to be a valuable tools in the development and implementation of external beam radiotherapy [EBRT] in the clinical thorax region and in the verification of absolute dose and dose distributions in the regions of clinical and dosimetric interest.

Polypropylenes

[The antibacterial effect of polypropylenimine-G2 dendrimer on *Escherichia coli*, *Enterobacter cloacae*, *Bacillus subtilis*, and *Staphylococcus aureus*]

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Qom University of Medical Sciences Journal 2014; 8 (4): 34-43

Keywords: Dendrimers; Anti-Bacterial Agents; *Escherichia coli*; *Enterobacter cloacae*; *Bacillus subtilis*; *Staphylococcus aureus*; Microbial Sensitivity Tests

Abstract: Dendrimers are a new class of synthetic macromolecules, which have many applications in medical sciences. This study was carried out with the purpose of investigating the antibacterial effect of polypropylenimine-G2 [PPI-G2] dendrimer on some bacterial species. In this study, the antibacterial effects of PPI-G2 dendrimer were studied by disk diffusion and microdilution method. PPI-G2 dendrimer in concentrations of 0.5, 5, 50, and 500microg/ml were inoculated onto blank disks and placed in Mueller-Hinton agar media. Zone of inhibition was investigated by bacterial inoculation according to the McFarland standard 0.5. Minimum inhibitory concentration [MIC] and minimum bactericidal concentration [MBC] of PPI-G2 dendrimer in the concentrations of 0.05, 0.5, 5, 50, and 500microg/ml, were determined using microdilution method in nutrient broth media. In this study, antibacterial activity of dendrimer increased with increasing their concentration in the disk. Zone of inhibition in the concentration of 500microg/ml for *E. coli*, *Enterobacter cloacae*, *Bacillus subtilis*, and *Staphylococcus aureus* were 19, 20, 25, and 21mm, respectively. The MIC for *Enterobacter cloacae*, *Bacillus subtilis*, and *Staphylococcus aureus* was 5microg/ml and for *E. coli* was 500microg/ml. In addition, the MBC for *Bacillus subtilis* and *Staphylococcus aureus* was 50microg/ml and for *E. coli* and *Enterobacter cloacae* was 500microg/ml. The findings of this study showed that PPI-G2 dendrimer has antibacterial effects. However, use of the dendrimer for drinking water disinfection requires further and wider studies.

Proton Therapy

Impact of range straggling and multiple scattering on proton therapy of brain, using a slab head phantom.

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International Journal of Radiation Research 2014; 12 (2): 161-167

Keywords: Brain; Phantoms, Imaging; Scattering, Radiation

Abstract: The advantages of proton beam in radiation therapy- like small lateral scattering as well as absence of exit dose tail in the organs which are after the tumor- make it capable of delivering more treatment doses to the target and much lesser to the critical tissues near it. In this study, the Monte Carlo MCNPX code has been used to simulate a slab head phantom irradiated by proton pencil beams. The simplified slab has tissue compositions of the ICRU 46, and the necessary data have been taken from adult male phantom of MIRD-ORNL family series. Suitable energy range of incident proton beams has been estimated in order to have the Bragg peaks inside the brain tissue. Energy straggling or, rather, range straggling, and multiple scattering which affect the lateral broadening of incident beams, have been investigated. The results show that the FWHM [Full Wide in Half Maximum] increases more than six times from 1.73 mm to 10.78 mm for the energy range of 50 - 135 MeV. The FWHM values of lateral dose profiles change from 1 mm in 50 MeV to 7.5 mm in 135 MeV, and it has been shown that when a pencil beam is used to irradiate a tissue, the absorbed dose in depth along the central axis does not show a Bragg peak pattern.

Pulpitis

drug therapy

Evaluation of pain after administration of local anesthesia with and without medication [midazolam] in irreversible pulpitis in a sample of Sindh.

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Pakistan Oral and Dental Journal 2014; 34 (3): 528-531

Keywords: Pain-drug therapy; Anesthesia, Local; Midazolam; Cross-Sectional Studies

Abstract: The objective was to evaluate pain experience of the patient after administration of local anesthesia in symptomatic irreversible pulpitis with and without pre-medication. Patients were diagnosed after taking medical and dental history, clinical examination, thermal tests and by taking radio-graphs. One hundred patients formed the study group. They were divided into two groups of fifty each, Group-A patients were given oral medication [Midazolam, Dormicum 7.5mg] and inferior dental nerve Block, while Group-B patients were given only Inferior Alveolar Nerve [IAN] Block [1.8 ml cartridge-1:100000 epinephrine] of Xylestesin-S [ESPE-Germany] without any pre-medication. Pre-operative pain of patients of both groups was recorded on Visual Analogue Scale [VAS] i.e: 0= no pain, 10 = most severe pain. [VAS 0>10] Group-A patients were given anesthesia 45 minutes after pre medication while Group-B, patients were treated routinely after administering inferior dental nerve Block. In group A [40% showed no pain, 44% mild pain, 12% moderate pain and 4% suffered severe pain n=50] while in group B [20% showed no pain, 50% mild pain, 20% moderate pain and 10% suffered from severe pain after the procedure was done. It was concluded that the patients who had received sedation, prior to anesthesia showed better results.

Quercetin

therapeutic uses

In vivo effect of quercetin flavonoid on hepatic gene expression and enzyme activity levels in old rats.

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EJB-Egyptian Journal of Biochemistry and Molecular Biology [The] 2013; 31 (1): 21-34

Keywords: Antioxidants-chemistry; Gene Expression; Quercetin-enzymology; Rats; Aged; Glutathione-blood

Abstract: Quercetin, one of the major flavonoids present in the human diet, has been associated with a wide range of biological properties, including antioxidant, anti-inflammatory and anticarcinogenic actions. The antioxidant action is considered as the most likely mechanism for the beneficial effects of quercetin. Therefore, the present study aimed to investigate the in vivo effects of quercetin on mRNA and activity levels of hepatic glutathione-S Transferase [GSTa2] and glutathione peroxidase [GPx] in aged rats. Quercetin treatment resulted in significant increase in relative hepatic mRNA levels for glutathione peroxidase, liver GPx enzyme activity and hepatic glutathione concentrations. On the other hand, it significantly decreased relative hepatic mRNA levels for Gsta2 and hepatic GST enzyme activity. No significant difference was found in BMI or in plasma concentration of ox-LDL between the two groups of aged rats. The present study may elucidate the molecular basis of the actions played by quercetin in vivo by increasing gene expression and enzymatic activities of the antioxidant GPx and by decreasing gene expression and enzymatic activities of GSTa2 in aged rats.

Quinolinic Acid

Histopathological and behavioral assessment of toxin-produced cerebellar lesion: a potent model for cell transplantation studies in the cerebellum.

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Cell Journal [Yakhteh] 2014; 16 (3): 325-334

Keywords: Cerebellum; Cognition; Purkinje Cells-pathology; Cell Transplantation; Rats, Wistar

Abstract: The cerebellum is a key structure involved in coordinated motor planning, cognition, learning and memory functions. This study presents a permanent model of a toxin produced cerebellar lesion characterized

according to contemporary motor and cognitive abnormalities. In this experimental study, slow administration of quinolinic acid [QA, 5 microl of 200 micromol, 1 microl/minute] in the right cerebellar hemisphere [lobule VI] caused noticeable motor and cognitive disturbances along with cellular degeneration in all treated animals. We assessed behavioral and histopathological studies over ten weeks after QA treatment. The data were analyzed with ANOVA and the student's t test. The QA treated group showed marked motor learning deficits on the rotating rod test [p <= 0.0001], locomotor asymmetry on the cylinder test [p <= 0.0001], dysmetria on the beam balance test [p <= 0.0001], abnormalities in neuromuscular strength on the hang wire test [p <= 0.0001], spatial memory deficits in the Morris water maze [MWM, p <= 0.001] and fear conditioned memory on the passive avoidance test [p <= 0.01] over a ten-week period compared with the control animals. Histopathological analysis showed loss of Purkinje cells [p <= 0.001] and granular cell density [p <= 0.0001] in the lesioned hemisphere of the cerebellum. Results of the present study show that QA can remove numerous cells which respond to this toxin in hemispheric lobule VI and thus provide a potential model for functional and cell-based studies.

Radiobiology

Human 3-D tissue models in radiation biology: current status and future perspectives.

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International Journal of Radiation Research 2014; 12 (2): 81-98

Keywords: Skin; Lung; Breast; Endothelium

Abstract: In this review, we discuss the use of a variety of 3-D models [particularly 3-D skin, lung, breast and endothelial] in radiobiological research and highlight the differences in responses compared to 2-D culturing conditions [monolayers]. We review the characteristics of existing 3-D models and aim to point out the substantial advantages 3-D cultures provide for modern radiobiology. In particular, they may facilitate the shift from the classical DNA damage and repair studies mainly carried out in monolayer cultures to the investigation of more generalized responses through pathway analysis and a system biology approach. 3-D models are expected to be very informative for investigations on radiotherapy responses in addressing the low dose risk. However, the 3-D model systems are not as easy to propagate and standardize as monolayer cultures. Therefore, we discuss the problems and limitations of 3-D models and propose ways to overcome some of the problems.

Radius Fractures

Intra-articular fractures of distal radius; outcome of treated with bridging [static] external fixator.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 649-653

Keywords: Intra-Articular Fractures; Radius; External Fixators

Abstract: To assess the radiological and functional outcome of external fixator in the treatment of intra-articular fractures of distal radius. Descriptive case series. Orthopaedic unit District Headquarter Hospital Temargarha Lower Dir from March 2013 to March 2014. Twenty five patients of intra-articular fracture distal radius fulfilling the inclusion criteria were treated with AO external fixator by ligamentotaxis. Preoperative and postoperative radiograph measurements were taken of radial inclination, radial tilt, and radial length, and fractures were classified according to the AO system. The fixator was removed after 6-8 week and functional assessment was done using Gartland and Werely point system at monthly interval for six months. Eighteen male [72%] and 7[28%] females mean age 43.1 years with intra-articular distal radius fractures were treated with external fixator. Preoperative mean radial inclination [10.5 degree] radial tilt[29 degrees dorsal] and radial length [6.3 mm] were reported postoperatively as 18.8 degrees, 8 degrees volar and 10 mm respectively at final follow up visit. The functional evaluation by Gartland and Werely's point system reported excellent [60% patients], good [20%] and fair[12%] at final follow up visit. One [4%] patient could not achieve union while one [4%] malunion was reported. Bridging external fixator[static] yields excellent radiological and functional results in majority of intra-articular distal radius fractures.

Rectal Neoplasms

Coexistence of perineural invasion and lymph node metastases is a poor prognostic factor in patients with locally advanced rectal cancer after preoperative chemoradiotherapy followed by radical resection and adjuvant chemotherapy.

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Medical Principles and Practice 2014; 23 (5): 465-470

Keywords: Lymphatic Metastasis; Lymph Nodes; Chemoradiotherapy; Chemotherapy, Adjuvant; Preoperative Period; Prognosis; Peripheral Nerves

Abstract: To determine the role of lymph node metastases [ypN] and perineural invasion [PNI] in patients with locally advanced rectal cancer [LARC]. Eighty-eight LARC patients receiving preoperative chemoradiotherapy from April 2006 to November 2011 were enrolled in this study. Univariate and multivariate analyses were conducted to determine the association between clinicopathologic features and clinical outcome. The presence of ypN [$p = 0.011$] and PNI [$p = 0.032$] was a significant adverse prognostic factor for disease-free survival [DFS]. High histologic grade [$p = 0.015$], PNI+ [$p = 0.043$] and ypN+ [$p = 0.041$] were adverse prognostic factors for overall survival [OS]. Positive PNI was significantly associated with a higher risk of distant failure [odds ratio = 6.09; 95% CI: 1.57-27.05; $p = 0.008$]. Moreover, patients with a coexistence of ypN+ and PNI+ had the significantly worst DFS [$p < 0.001$] and OS rates [$p < 0.001$] compared with other phenotypes. The presence of either PNI or ypN was a significant prognostic factor for predicting poor survival rates in LARC patients, especially those with a coexistence of both factors. Accordingly, we recommend an intensive follow-up and therapeutic programs for LARC patients with simultaneous PNI+ and ypN+.

Resistance Training

Effects of an eight-week resistance training on plasma vaspin concentrations, metabolic parameters levels and physical fitness in patients with type 2 diabetes.

Mahdirejei, Hassan Amouzad; Abadei, Sajedah Fadaei Reyhan; Seidi, Arshin Abbaspour; Gorji, Negar Eshaghei; Kafshgari, Hassan Rahmani; Pour, Mostafa Ebrahim; Khalili, Habib Bagheri; Hajeizad, Farshad; Khayeri, Mohamad Islamic Azad University - Faculty of Physical Education and Sport Science - Department Of Exercise Physiology

Cell Journal [Yakhteh] 2014; 16 (3): 367-374

Keywords: Serpins-blood; Insulin; Lipids-blood; Blood Glucose; Diabetes Mellitus, Type 2

Abstract: Vaspin as a novel adipokine has insulin-sensitizing effects, which may be associated with decreased blood glucose concentration. In this study, we aimed to investigate the effects of resistance exercise training on plasma vaspin concentrations and its relation to plasma levels of insulin and glucose in patients with type 2 diabetes [T2D]. In a quasi-experimental study, 18 male patients with T2D [mean age, 48.50 +/- 7.73 years, mean weight, 79.41 +/- 12.60 kg] were divided into 2 groups as follows: control [n=9], and resistance training [RT; n=9] groups. Resistance training was performed 3 times weekly for 8 weeks. Anthropometric, metabolic parameters and plasma vaspin levels were measured at baseline and at the end of study. Within-group data were analyzed with the paired t test, and between-group effects were analyzed with the independent t test. Waist-hip ratio [WHR], glucose, insulin of plasma and insulin resistance [homeostasis model assessment of insulin resistance [HOMA-IR] score] were all significantly decreased, whereas levels of vaspin and plasma lipids [cholesterol, triglycerides [TG], high-density lipoprotein [HDL], low-density lipoprotein [LDL] and very low-density lipoproteins [VLDL]] showed no significant changes in RT group as compared with the related values of control groups. Serum vaspin levels did not correlate with anthropometric and metabolic parameters at the assigned times. Our findings suggest that 8-week of resistance training significantly improved insulin resistance index; however, this form of exercise failed to result in significant changes in serum vaspin concentration and lipid profiles. Further research is needed to investigate the role of vaspin in human physiology and to elucidate the effect[s] of exercise intervention on serum vaspin concentrations.

[The effect of shoulder resistance training on isometric strength of the neck extensor muscles]

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Qom University of Medical Sciences Journal 2014; 8 (4): 19-26

Keywords: Shoulder; Muscle Strength; Neck

Abstract: Neck pain is an important public health care problem in modern societies, and proper and effective training programs are required for its prevention and treatment. The purpose of this study was to determine the effect of shoulder-abduction resistance trainings on isometric strength of the neck extensor muscles. In this study, a total of 28 healthy women [20-25 years of age], were randomly divided into two groups of shoulder-abduction resistance exercises [n=14] and control [n=14], who performed active range of motion exercises [AROM]. Both groups performed exercises 3 days/week for 10 weeks. In both groups, isometric strength of neck muscles was measured before and after the intervention period using an isometric neck muscle strength measurement device. Data were analyzed by independent and paired t-tests. The strength of the neck extensor muscles in the case group was 72.69 +/- 15.82, which was significantly higher in comparison with the control group, 52.68 +/- 14.20 [$p < 0.001$]. The results of this study showed that shoulder-abduction resistance exercises are effective in increasing isometric strength of the neck extensor muscles.

Rhabdomyosarcoma, Embryonal

diagnosis

Primary embryonal rhabdomyosarcoma of the kidney in an adult: a case report.

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International Journal of Radiation Research 2014; 12 (2): 189-192

Keywords: Kidney Neoplasms; Adult

Abstract: Primary rhabdomyosarcoma [RMS] of the kidney is a rare malignant mesenchymal tumor with an aggressive clinical course. Adult renal RMS is typically a pleomorphic histologic subtype and only a few cases have ever been reported. We herein present a new case of renal RMS of the embryonal histologic subtype in a 26-year-old woman.

Root Canal Therapy

Comparison of root canal treatment quality performed by house surgeons and postgraduate students.

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Pakistan Oral and Dental Journal 2014; 34 (3): 543-547

Keywords: Endodontics; Periapical Periodontitis; Surgeons; Students, Dental; Quality of Health Care; Cross-Sectional Studies; Dental Pulp Cavity; Pit and Fissure Sealants

Abstract: Endodontics is a challenging discipline, and includes technically demanding procedures in general dental practice. The objective of this study was to compare the quality of root canal treatment performed by house surgeons and postgraduate students. Comparative cross sectional study was carried out in the Department of Operative Dentistry, Lahore Medical and Dental College, Lahore [LMDC]. The duration of study was from 13th march 2008 to 12th September 2008. One hundred [100] single rooted teeth of patients reported to the Department of Operative dentistry of LMDC. Patients were randomly allotted and divided in to two groups. Root canal treatment of group A patients was performed by postgraduate students and that of group B by house surgeons. Quality of root canal treatment of both groups was assessed radiographically. A predetermined criterion for assessing quality used in earlier studies was employed. All quality assessment variables for evaluation of root canal which were lateral root seal, adequate length, transportation of apex and instrument fracture showed statistically significant difference between the two groups. The quality of root canal treatment performed by postgraduates was much better than the house surgeons.

Rothmund thomson syndrome

diagnosis

Rothmund Thomson syndrome.

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Pakistan Oral and Dental Journal 2014; 34 (3): 411-413

Keywords: Rothmund thomson syndrome-therapy

Abstract: Rothmund Thomson Syndrome is a rare autosomal recessive syndrome caused by homozygous or compound heterozygous mutations in [RECQL4] gene. It was first described in 1868 by a German ophthalmologist [Rothmund1] and later in 1936 by an English dermatologist [Thomson2] who reported another three similar patients but the ononym Rothmund Thomson Syndrome [RTS] was named by Taylor3 in 1957.

Shoes

High heel shoes; outcome of wearing in young generation: a cross sectional study.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 798-803

Keywords: Heel; Cross-Sectional Studies; Questionnaires; Hallux Valgus; Callosities; Heel Spur; Blister; Hypesthesia; Students, Medical

Abstract: Outcome of wearing high heel shoes in young generation: A Cross Sectional Study. Introduction/ High heels increase the heel height, thus increasing the pressure under the metatarsal head in forefoot, they push the center of mass of the body forward taking the hips and spine out of alignment moreover the altered posture of walking 1-5 in high heels places excessive forces on the inside of the knee joint. All these factors contribute in causing deleterious pathologic deformities. The studies carried out previously were more focused on the adult population furthermore there isn't much work done to investigate the effect of heels in Pakistan therefore, this was a non-invasive study the purpose of which was to evaluate these complications particularly targeting the medical students of medical colleges, Karachi. A total of 220 respondents aged between 15 to 25 years were selected as potential respondents meeting the criteria for selection. A convenience based randomized sampling method was adopted, where the participants were required to fill questionnaires and give their demographic details. They were inquired about the presence of any co morbidities which was an essential part of the exclusion criteria. They were also inquired about their usage of high heel shoes, their size, duration and frequency of usage, and if they had been causing any complications such as bunions, heel spur, callosities or pain in soles, calf or back. The data obtained was analyzed through SPSS and the graphs of frequency for all the complications were computed. After analyzing the 220 participants it was found that 7.7% were males while 92.3% were females, and 61.8% were found to be within 21 to 23 years of age. After the analyses of data for the complications it was found that out of the total participants 18.8% experience foot swelling, 19.4% blisters, 16.4% foot numbness, 12.3% foot callosities, 2.8% heel spur, and 3.7% experience bunions. From this study conducted on the students of medical college it was found that wearing high heel shoes is not associated with any significant complications among most of the students.

Silk

Potential use of natural silk for bio-dental applications.

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Journal of Taibah University Medical Sciences 2014; 9 (3): 171-177

Keywords: Biomedical and Dental Materials; Dentistry; Tissue Scaffolds; Bombyx

Abstract: Silks are protein polymers that are spun into fibres by silkworms and spiders under ambient conditions. Silk has been used as a biomaterial in a variety of biological applications for many years, whereas there are few applications in dentistry. The aim of this study was to explore the potential properties of natural silk for dental applications by determining the structure and features that make natural silk a biocompatible candidate. We conducted a literature search through the recognized databases of medline, ISI web of science, SCOPUS, and EBASE to elucidate the natural properties of silk, its processing for biomedical applications and its use in dental applications. Silk has excellent natural properties, such as strength, resistance to light, temperature and humidity and biocompatibility. Once silk has been dissolved, it can be used to produce a variety of materials, such as films, gels, fibres, nanofibres, granules, foams, spheres and electrospun mats, on a micro or nano scale. Applications in dentistry include biomineralization, tissue engineering for scaffold applications and drug delivery. There has been renewed research on silk-based materials for various biomedical applications, including dentistry.

Silver

Antioxidant status of rats administered silver nanoparticles orally.

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Journal of Taibah University Medical Sciences 2014; 9 (3): 182-186

Keywords: Antioxidants; Nanoparticles; Lipid Peroxidation; Rats, Wistar

Abstract: Silver nanoparticles are being used increasingly for biomedical purposes because of their broad antimicrobial potential. Their effects on cellular systems, however, have been addressed in only a few studies. We evaluated the effects of these nanoparticles on the antioxidant status of groups of five male Wistar rats. Six groups of rats were given 100, 1000 or 5000 mg/kg daily through an oral cannula for 7 or 14 days, one group received 5000 mg/kg for 21 days, and a control group received distilled water. The animals were sacrificed 24 h after the end of treatment, and serum and tissue homogenates were prepared. Silver nanoparticles significantly [$p < 0.05$] increased

the concentrations of malondialdehyde and superoxide dismutase but decreased the levels of reduced glutathione, glutathione S-transferase and catalase. These results indicate that silver nanoparticles may cause lipid peroxidation and alter antioxidant status in a manner that may cause oxidative stress.

Silymarin

The comparison of the effects of silybin and silybin-phosphatidylcholine on viability and ESR expression in human breast cancer T47D cell line.

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Cell Journal [Yakhteh] 2014; 16 (3): 299-308

Keywords: Phosphatidylcholines; Estrogen Receptor alpha; Gene Expression; Breast Neoplasms; Cell Line

Abstract: Silybin is a polyphenol with anti-oxidant and anti-cancer properties. The poor bioavailability of some polyphenols can be improved by binding to phosphatidylcholine. In recent years, studies have been conducted to evaluate the anti-cancer effect of silybin. We studied the effect of silybin and silybin-phosphatidylcholine on ESR1 and ESR2 gene expression and viability in the T47D breast cancer cell line. In this experimental study, a 3-[4,5-Dimethylthiazol-2-Yl]-2,5- Diphenyltetrazolium Bromide test [MTT test] was used to determine doses for cell treatment, and the gene expression was analyzed by real-time reverse transcriptase-polymerase chain reaction [real-time RT-PCR]. Significant dose- and time-dependent cell growth inhibitory effects of silybin and silybin-phosphatidylcholine along with ESR1 down-regulation were observed in T47D cells. In contrast to ESR1, the T47D cell line showed negligible ESR2 expression. This study suggests that silybin and silybin-phosphatidylcholine down-regulate ESR1 in ER+ breast cancers. Results also show that in the T47D cell line, silybinphosphatidylcholine has a much higher growth inhibitory effect and a more significant down-regulation of ESR1 compared with silybin.

Spermatozoa

Effect of extender and equilibration time on post thaw motility and chromatin structure of buffalo bull [Bubalus bubalis] spermatozoa.

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Cell Journal [Yakhteh] 2014; 16 (3): 279-288

Keywords: Buffaloes; Chromatin; Cryopreservation

Abstract: The aim of the present study was to investigate the effects of four equilibration times [2, 4, 8 and 16 hours] and two extenders [tris or Bioxcell] on cryopreservation of buffalo semen. In this experimental study, split pooled ejaculates [n=4], possessing more than 70% visual sperm motility were divided in two aliquots and diluted in Bioxcell and tris-citric egg yolk [TCE] extenders. Semen was cooled to 4°C within 2 hours, equilibrated at 4°C for 2, 4, 8 and 16 hours, then transferred into 0.5 ml French straws, and frozen in a programmable cell freezer before being plunged into liquid nitrogen. Postthaw motility characteristics, plasma membrane integrity, acrosome morphology and DNA integrity of the buffalo sperm were studied after thawing. There were significant interactions between equilibration times and extenders for sperm motility and membrane integrity. Post thaw sperm motility [PMOT], progressive motile spermatozoa [PROG], plasma membrane integrity [PMI] and normal apical ridge [NAR] measures were lower for sperm equilibrated for 2 hours in both TCE and Bioxcell extender compared to others equilibration times. PMOT, PMI and NAR for sperm equilibrated for 4, 8 and 16 hours showed no significant differences in either extender, although PROG measures were superior in Bioxcell compared to TCE at all equilibration times [p<0.05]. Kinematic parameters such as average path velocity, curvilinear velocity and linearity in the Bioxcell extender were superior to those in the TCE extender studied. In contrast to motility and viability, the DNA integrity of post thaw spermatozoa remained unaffected by different equilibration times. Equilibration time is necessary for preservation of the motility and integrity of buffalo sperm membranes. Equilibration times of over than 2 hours resulted in the greatest preservation of total semen parameters during cryopreservation. There were no significant interactions between equilibration times over 4 hours and type of extender which lead to greater post thaw sperm survival.

Spinal Cord Diseases

diagnosis

Cervical gouty myelopathy in two cases at King Abdulaziz medical city.

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Journal of Taibah University Medical Sciences 2014; 9 (3): 239-244

Keywords: Gout; Cervical Vertebrae; Magnetic Resonance Imaging

Abstract: Gout is a rheumatological disorder found exclusively in human species. It is caused by deposition of crystals of monosodium urate in joints, cartilages, tendons, and soft tissues. Involvement of the spine, however, is rare. In this report, we describe two patients presented to King Abdulaziz Medical City in Jeddah with clinical features of cervical myelopathy, including neck pain, L'hermitte phenomena, quadriparesis and sensory deficit [shoulder level]. Magnetic resonance imaging confirmed the presence of cervical cord compression with intrinsic cord signal abnormalities. Both patients had laminectomy and intraoperatively; severe canal stenosis was identified. A whitish cheesy material was noticed causing significant root compression. The pathology was diagnostic of gout. In this article, we present two difficult cases with interesting clinical, radiological and pathological findings. We emphasize on the importance of early diagnosis to prevent morbidity.

Sterilization

Knowledge and practice of sterilization among different health care workers.

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Pakistan Oral and Dental Journal 2014; 34 (3): 507-509

Keywords: Knowledge; Awareness; Health Personnel; Questionnaires; Dentists

Abstract: Objective of the study was to assess the level of knowledge and awareness among different levels of healthcare workers about sterilization. A questionnaire was designed to obtain information about knowledge of sterilization among dental house officers, dental auxiliaries and other non teaching staff of different dental colleges of Karachi. The sample size of the study was 500. The questionnaires were filled in by dentists and dental auxiliaries. The was spread over 6 months. The questionnaire contained questions about socio-demographic data and knowledge about sterilization, wearing of gloves, masks, and sterilization protocol. Data were analyzed by SPSS statistical software. There were 12 questions in each questionnaire. The study group consisted of 182 [36.4%] male and 318 [63.6%] female. The majority of respondents included house officers, teaching and non teaching staff of different medical/ dental colleges of Karachi. Most of the dentists wore gloves while treating patients, 484 [98.6%] of respondents said that they always changed their gloves after each patient where as 11[2.2%] said they did sometimes.

Surgical Attire

Comparison of pore size analysis of existing and experimental surgical gowns.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 804-809

Keywords: Hospitals; Microscopy, Electron, Scanning; Porosity

Abstract: Majority of the public and private sector hospitals are using reusable gowns and scrubs whereas only a few hospitals are using disposable ones. Protection during surgery is very important both for the patient as well as for the surgeon. The reasons are not only hygienic but also creating a barrier so that the bacteria and the viruses do not transfer from patient to doctor and vice versa. The surgical gowns have been in use for many decades. With the advancements in the field of manufacturing [weaving and finishing], the quality of gowns has been improving over the period of time. In Pakistan, there is no awareness yet regarding the construction of surgical apparels viz. surgical gowns and scrubs so no standards are being followed as such during the manufacturing [weaving and finishing] of surgical apparels. For effective barrier function of surgical gowns and scrubs, it is necessary for them to comply with certain standards in terms of physical characteristics viz. mass per unit area, number of threads per unit length, tensile strength etc. The idea behind this study was to evaluate the physical characteristics of surgical gowns and scrubs currently being used in different public sector hospitals of Lahore. [1] To evaluate the pore size of existing and experimental surgical gowns being used in different hospitals of Lahore. [2] To compare the pore size analysis of existing surgical gowns with experimental surgical gowns. Experimental study design was used. January 2014- April 2014. Samples of fabric used for making surgical gowns and scrubs were collected from different hospitals of Lahore and evaluated for pore size with the help of optic microscope. For experimental gowns the fabric was developed according to the international standards. Pore size of surgical gowns was measured with the help of scanning electron microscope. The results showed large pores in existing surgical gown. No length or width wise pores in the experimental surgical gowns fabric except there are tiny holes of 0.5 after 20 launderings. The existing reusable surgical gowns did not offer any resistance against bacterial penetration because of large pores. The fabric used for the existing surgical gowns was not up to the mark and did show large pores under microscope. The experimental surgical gown showed no pores in the fabric structure when subjected to scanning electron microscope. The functional ability of resistance against bacterial penetration of the surgical gowns is important because the risk of SSI. If the patient develops SSI whether it is grades 1, 2 or 3, the cost is significant. The cost effectiveness of the existing reusable surgical gowns becomes insignificant as none of the existing surgical gowns offer any resistance against bacterial penetration and the risk of SSI with subsequent treatment cost. Necessary

guidelines can be formulated and proposed to the concerned departments of various hospitals, in the light of which they can design some specifications and select appropriate materials for surgical apparels in future.

Taboo

Prevalence of social myths and taboos related to dental health among general population of Rawalpindi - Pakistan. Nasir, Zubair; Ahmed, Waseem; Iqbal, Fatima; Iqbal, Sana; Tariq, Maliha; Saba, Aleshba

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Pakistan Oral and Dental Journal 2014; 34 (3): 520-523

Keywords: Oral Health; Prevalence; Dentistry; Cross-Sectional Studies; Mythology

Abstract: It was a descriptive cross-sectional study conducted in 2010 to explore various misconceptions and taboos about dental health to see their prevalence in the community and to assess their effects on general dental health. The survey was carried out using convenient sampling technique of 300 adults. A Questionnaire in Urdu language consisting of ten close-ended questions regarding most common myths related to dental health in the community was used. SPSS version 16 was used for data analysis. Most of the respondents were found strong believers of various myths irrespective of their qualification level. The results of this study shows that general population of Rawalpindi believes in various myths regarding teeth and their health which results in poor dental health. This might be due to lack of knowledge about the dentition, dental health and its importance.

Tannins

Effect of tannic acid on growth and acid production of *Candida albicans*.

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Pakistan Oral and Dental Journal 2014; 34 (3): 405-408

Keywords: *Candida albicans*; Growth; Growth Inhibitors; Acids

Abstract: Tannic Acid or Hydrolysable Tannins are naturally occurring complex phenol-rich polymers; prevalent in a wide variety of herbs, plants and fruits. Tannic Acid's antimicrobial activity against food-borne pathogens has been recognized and it is generally considered a safe food additive. The present study was carried out to investigate the effect of Tannic acid [TA] on the growth and acid production of *C. albicans*. Various concentrations of TA prepared with Sabourand's dextrose broth were inoculated with *C. albicans* and incubated at 37°C. Growth was monitored by optical density [OD] at 560nm wavelength and measured at specific intervals over a period of 24 hours. *C. albicans* cells were used as a non-growing cell suspension in a buffer solution of 40mM Sodium bicarbonate [NaHCO₃] and 6mM Dipotassium phosphate [K₂HPO₄] to which various concentrations of TA were added. Acid production was stimulated by the addition of 1% glucose. The data obtained showed that TA was fungistatic at concentrations of 10, 50, 300 and 500 microg/ml and fungicidal at 700 microg/ml. Acid production of *C. albicans* was inhibited at concentrations of 100, 300 and 500 microg/ml. The inhibitory activity of TA on growth and acid production of *C. albicans* suggests that TA could play an important role in prevention and treatment of Oral Candidosis and in reducing caries activity.

Tendons

Comparative study on functional effects of allotransplantation of bone marrow stromal cells and adipose derived stromal vascular fraction on tendon repair: a biomechanical study in rabbits.

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Cell Journal [Yakhteh] 2014; 16 (3): 263-270

Keywords: Transplantation, Homologous; Allografts; Mesenchymal Stromal Cells; Mesenchymal Stem Cell Transplantation; Adipose Tissue; Biomechanical Phenomena; Rabbits; Bone Marrow

Abstract: Tendon never returns to its complete biological and mechanical properties after repair. Bone marrow and, recently, adipose tissue have been used as sources of mesenchymal stem cells which have been proven to enhance tendon healing. In the present study, we compared the effects of allotransplantation of bone marrow derived mesenchymal stromal cells [BMSCs] and adipose derived stromal vascular fraction [SVF] on tendon mechanical properties after experimentally induced flexor tendon transection. In this experimental study, we used 48 adult male New Zealand white rabbits. Twelve of rabbits were used as donors of bone marrow and adipose tissue, the rest were divided into control and treatment groups. The injury model was a unilateral complete transection of the deep digital flexor tendon. Immediately after suture repair, 4x10⁶ cells of either fresh SVF from enzymatic digestion of adipose tissue or cultured BMSCs were intratendinously injected into tendon stumps in the

treatment groups. Controls received phosphate-buffered saline [PBS]. Immobilization with a cast was continued for two weeks after surgery. Animals were sacrificed three and eight weeks after surgery and tendons underwent mechanical evaluations. The differences among the groups were analyzed using the analysis of variance [ANOVA] test followed by Tukey's multiple comparisons test. Stromal cell transplantation resulted in a significant increase in ultimate and yield loads, energy absorption, and stress of repairs compared to the controls. However, there were no statistically significant changes detected in terms of stiffness. In comparison, we observed no significant differences at the third week between SVF and BMSCs treated tendons in terms of all load related properties. However, at the eighth week SVF transplantation resulted in significantly increased energy absorption, stress and stiffness compared to BMSCs. The enhanced biomechanical properties of repairs in this study advocates the application of adipose derived SVF as an excellent source of multipotent cells instead of traditional BMSCs and may seem more encouraging in cell-based therapy for tendon injuries.

Th17 Cells

Positive and negative regulation of Th17 cell differentiation: evaluating the impact of RORC2.

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Cell Journal [Yakhteh] 2014; 16 (3): 343-352

Keywords: Cell Differentiation; Interleukin-17; Receptors, Interleukin; RNA, Small Interfering; Nuclear Receptor Subfamily 1, Group F, Member 3

Abstract: Th17 cells are known to be involved in some types of inflammations and autoimmune disorders. RORC2 is the key transcription factor coordinating Th17 cell differentiation. Thus, blocking RORC2 may be useful in suppressing Th17-dependent inflammatory processes. The aim was to silence RORC2 by specific siRNAs in naive T cells differentiating to Th17. Time-dependent expression of RORC2 as well as IL-17 and IL-23R were considered before and after RORC2 silencing. In this experimental study, naive CD4+ T cells were isolated from human cord blood samples. Cytokines TGFbeta plus IL-6 and IL-23 were used to polarize the naive T cells to Th17 cells in X-VIVO 15 serum free medium. A mixture of three siRNAs specific for RORC2 was applied for blocking its expression. RORC2, IL-17 and IL-23R mRNA and protein levels were measured using qRT-PCR, ELISA and flow cytometry techniques. Pearson correlation and one-way ANOVA were used for statistical analyses. Significant correlations were obtained in time-dependent analysis of IL-17 and IL-23R expression in relation with RORC2 [R=0.87 and 0.89 respectively, p<0.05]. Silencing of RORC2 was accompanied with almost complete suppression of IL-17 [99.3%; p<0.05] and significant decrease in IL-23R gene expression [77.2%, p<0.05]. Our results showed that RORC2 is the main and the primary trigger for upregulation of IL-17 and IL-23R genes in human Th17 cell differentiation. Moreover, we show that day 3 could be considered as the key day in the Th17 differentiation process.

Thoracic Vertebrae

injuries

Anterior surgical approaches for thoracolumbar burst fractures.

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Assiut Medical Journal 2013; 37 (1): 23-30

Keywords: Lumbar Vertebrae-injuries; Fractures, Bone-surgery; Postoperative Period; Treatment Outcome

Abstract: The choice of optimal surgical procedure for thoracolumbar burst fractures remains controversial. To evaluate the results of anterior surgical approaches to thoracolumbar burst fractures as regard ease of the technique, safety and incidence of complications, postoperative stability and functional outcomes. A retrospective study of 18 patients with thoracolumbar burst fractures treated through an anterior surgical approach between March 2011 and 2012. We used both the Thoracolumbar Injury Classification and Severity [TLICS] score and the Load Sharing Classification score for selection of cases. Anterior corpectomy, grafting and Z-plate fixation were done. Follow up of cases was documented as regard clinical and radiological results. There were 12 males and 6 females, with a mean age of 38.3 years. Falls were the most common cause. Tnmspleural thoracotomy approach done in 5 patients, thoraco abdominal approach in 9 patients and flank retroperitoneal approach in 4 patients. 2 patients died first day postoperatively due to DVT and pulmonary embolism. Satisfactory results occurred in 10 patients, 5 patients had no clinical improvement and 1 patient showed clinical deterioration. Anterior approach of the spine allows for one stage decompression, stabilization and deformity correction.

Thrombocytopenia

epidemiology

Frequency of thrombocytopenia; patients with chronic hepatitis C infection.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 684-690

Keywords: Hepatitis C, Chronic; Cross-Sectional Studies

Abstract: To determine frequency of thrombocytopenia in patients with Chronic Hepatitis C infection. A 6 months cross sectional study was carried out to determine frequency of thrombocytopenia in all patients admitted with chronic hepatitis c infection in all medical units at Civil Hospital Karachi, from April 2, 2012 to October 1, 2012. Patients with platelet count <150,000/microL was labeled as having thrombocytopenia and categorized according to the Child-Pugh Scoring. Patients with Child-Pugh score <7 was categorized in Grade A, 7-9 in Grade B and >9 in Grade C. Out of 141 patients, 46[32.6%] were male and 65[46%] were female with 1.17:1 male to female ratio. The average age of patients was 47.25 +/- 11.52 years [95%CI: 45.33 to 49.17]. Similarly average duration of illness was 3.06 +/- 1.78 Years [Range 8 months to 9 Years] and average platelet count was 165156.74 +/- 176324.9. Seventy five patients [53%] had thrombocytopenia [platelet count <150000/microL]. The average age of thrombocytopenic patients was 48.53 +/- 12.34 years and duration of illness was 3.7 +/- 1.81 years. Regarding child Pugh class, 35[24.8%] cases had in class A, 49[34.8%] in class B and 57[40.4%] in class C. Thrombocytopenia was most common in above 60 years of age that is 10.7% [8/75] and 22.7% to 32% in all age groups. In our study the frequency of thrombocytopenia was found to be higher. Patients of age more than 60 years and of child-Pugh class C affected the most.

Tibial Fractures

therapy

Open tibial shaft fractures; treatment with external fixator.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 654-658

Keywords: Fractures, Open; External Fixators; Tibia

Abstract: The purpose of the study was to evaluate the clinical results after operative treatment of open tibia fractures [grade IIIA/B] with external fixator. 25 patients with open fractures of the tibial diaphysis, classified as type III A and B, according to the Gustilo classification, were operatively treated in Agency Headquarter Hospital Landikotal. All the patients were treated with an external fixator. The time of the union of the fracture, problems with the union [malunion and nonunion], infection were examined as treatment outcome. Late complications and their treatment was not the object of the study. The follow-up period was at least 8 months. The end results of the external fixation of 25 tibial shaft fractures, 18 [72%] men and 7 [28%] women, average age 37.7 [16-65]. The union rate was 83%. Nonunion rate was 12%. And malunion rate was 5% [fig-I]. Fifteen patients had Gustilo type IIIA injury while 10 patients had type IIIB injury [fig-II]. Pins tract infection rate was 10%. The average time of fractures healing was 28.5 weeks [15-22]. There were 3 cases with wound infection and no sequestrum formation. External fixation is a simple and effective means of treating all types of open tibial shaft fractures.

Tobacco

Cytomorphometry of buccal smears of Nicotiana tabacum [naswar] users: a pilot study.

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Pakistan Oral and Dental Journal 2014; 34 (3): 445-448

Keywords: Mouth Mucosa; Cytological Techniques

Abstract: The objective of the current study was to assess the cytomorphometric changes in buccal mucosal smears of naswar users. The study groups consisted of 24 subjects divided into two groups i.e A control group and B naswar users of ages between 15yrs-60yrs. Cellular diameter CD, nuclear diameter ND and nuclear to cytoplasmic ratio N/C ratio was assessed in buccal mucosal smears taken from clinically normal mucosa of naswar users and normal subjects using exfoliative cytology. The mean cellular diameter of group A and B was

43.93microm and 44.13microm respectively. The mean nuclear diameter of control group and naswar users was 9.99microm and 11.88microm respectively. And the mean N/C ratio of group A and B was 1: 4.42 and 1: 3.71 respectively. The independent T test showed significant results [$p \leq 0.000$] for nuclear diameter ND and N/C ratio both. Cytomorphometric changes in cellular diameter, nuclear diameter and N/C ratio assessed by our study depict only cause effect relationship between naswar and association of these changes with dysplasia or premalignancy needs further verification with the help of specific immunomarkers.

Toll-Like Receptor 2

Maintenance of memory CD4 cells; the role of TLR2 engagement.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 771-781

Keywords: Memory; Antigens, CD4; CD4-Positive T-Lymphocytes; T-Lymphocytes; Mice, Inbred BALB C; Immunity

Abstract: Ligation of TLR by distinct pathogen components provides essential signals for T cell priming, although how individual TLR engagement affects memory T cells induction and maintenance in vivo is not well defined. The aim of the present study was to investigate the role of TLR2 engagement in the maintenance of memory T cells. Ova specific KJ-1 cells from DO-11 mice were adoptively transferred to Balb/c mice. T cells were activated with Ova in the host of adoptive cells to induce memory. To examine the function and + maintenance of memory cells in vivo, CD4 T cells were transferred to mice, which were then challenged with PBS or Ova-BLP and looked for memory cell proliferation. Furthermore, the memory T cells harvested from lymph node and spleen of Balb/c mice were treated with Ova and BLP in vitro to establish the effects of TLR2 ligation on proliferation of memory T cells. Two different protocols were used to confirm the same phenomenon. Two different protocols show that memory T cells proliferation in vivo and in vitro can be maintained by TLR2 agonist [BLP]. We demonstrate that antigen specific CD4 T cells undergo extensive proliferation in the presence of Ova and TLR2 agonist, in fact with TLR2 priming results in greater expansion. Moreover, TLR2 agonist priming of ova-specific CD4 T cells resulted in a higher frequency of persisting ova/BLP specific memory CD4 T cells which facilitated strong secondary responses upon challenge with ova antigen. Ligation of TLR2 agonist BLP [Pam3Cys] alone is + sufficient to maintain the proliferation of Ova specific CD4 T cells without the need of antigen. Which might suggest that long-term functional capacities of T cells are set by innate signals during early phases of an infection.

Tomography, Emission-Computed, Single-Photon

Quantitative SPECT and planar 32P bremsstrahlung imaging for dosimetry purpose - an experimental phantom study.

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International Journal of Radiation Research 2014; 12 (2): 129-138

Keywords: Echo-Planar Imaging; Phosphorus Radioisotopes; Radiometry; Phantoms, Imaging; Tomography, X-Ray Computed

Abstract: In this study, Quantitative 32P bremsstrahlung planar and SPECT imaging and consequent dose assessment were carried out as a comprehensive phantom study to define an appropriate method for accurate Dosimetry in clinical practice. CT, planar and SPECT bremsstrahlung images of Jaszczak phantom containing a known activity of 32P were acquired. In addition, Phantom contour was determined for attenuation correction and image registration. Reconstructed SPECT slices were corrected for attenuation effect using two different methods: conventional Chang's method and an expectation maximization algorithm followed by CT and SPECT image registration. Cumulated activity was calculated by a predefined calibration factor. Both attenuation correction algorithms were quantitatively assessed by the Monte Carlo SIMIND program. Acquired planar Bremsstrahlung images were quantified by the Conjugate View Method, as well. Calculated activities were statistically different among various quantification methods [$P= 0.0001$]. When iterative expectation maximization algorithm and applied methods were used, mean calculated activity had the least difference with real activity of +/- 3%. Quantitative 32P Bremsstrahlung SPECT imaging could accurately determine administered activity and assess radiation dose if precise attenuation correction and appropriate registration with CT were done even without sophisticated scatter correction or when SPECT/CT machines are not available. Therefore, it has the potential of specific tumor/organ dosimetry in clinical practice. The best method for calculating activity is quantitative SPECT using iterative expectation maximization algorithm. Additionally, applied method for determining phantom contour was practical for attenuation correction and image registration.

Tooth Movement

Signaling molecules and genetic mechanisms involved in orthodontic tooth movement.

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Pakistan Oral and Dental Journal 2014; 34 (3): 467-471

Keywords: Orthodontics; Intercellular Signaling Peptides and Proteins; Colony-Stimulating Factors; Cytokines

Abstract: The objective of this review is to highlight recent developments in cellular, molecular, tissue, and genetic reactions in response to orthodontic force application. Histologic, histochemical, and immunohistochemical studies in the 20th century and the early 21st century demonstrated that many phenomena, both physical and biologic, are involved in tooth movement. When mechanical forces are applied, cells, as well as the extracellular matrix [ECM] of the [periodontal ligament] PDL and alveolar bone, respond concomitantly, resulting in tissue remodeling. During the early phases of orthodontic tooth movement, PDL fluids are shifted, and cells and ECM are strained. In areas where tension or compression evolves under the influence of the orthodontic appliance, vasoactive neurotransmitters are released from distorted nerve terminals. In the PDL, most terminals are near blood-vessel walls. Therefore, the released neurotransmitters interact first with capillary endothelial cells. In response, the endothelial cells express receptors that bind circulating leukocytes, promoting their migration by diapedesis out of the capillaries. These migratory cells secrete many signal molecules, including cytokines and growth factors, some of which might be categorized as inflammatory mediators, that stimulate PDL and alveolar bone lining cells to remodel their ECM. This force-induced remodeling facilitates movement of teeth to areas in which bone had been resorbed.

Transforming Growth Factor alpha

Transforming growth factor -alpha improves memory impairment and neurogenesis following ischemia reperfusion.

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Cell Journal [Yakhteh] 2014; 16 (3): 315-324

Keywords: Memory Disorders; Memory; Neurogenesis; Reperfusion Injury; Hippocampus; Rats, Wistar

Abstract: Stroke is most important cause of death and disability in adults. The hippocampal CA1 and sub-ventricular zone neurons are vulnerable to ischemia that can impair memory and learning functions. Although neurogenesis normally occurs in the dentate gyrus [DG] of the hippocampus and sub-ventricular zone [SVZ] following brain damage, this response is unable to compensate for severely damaged areas. This study aims to assess both neurogenesis and the neuroprotective effects of transforming growth factor-alpha [TGF-alpha] on the hippocampus and SVZ following ischemia-reperfusion. In this experimental study, a total of 48 male Wistar rats were divided into the following groups: surgical [n=12], phosphate buffered saline [PBS] treated vehicle shams [n=12], ischemia [n=12] and treatment [n=12] groups. Ischemia was induced by common carotid occlusion for 30 minutes followed by reperfusion, and TGF-alpha was then injected into the right lateral ventricle. Spatial memory was assessed using Morris water maze [MWM]. Nestin and Bcl-2 family protein expressions were studied by immunohistochemistry [IHC] and Western blot methods, respectively. Finally, data were analyzed using Statistical Package for the Social Sciences [SPSS, SPSS Inc., Chicago, USA] version 16 and one-way analysis of variance [ANOVA]. TGF-alpha injection significantly increased nestin expression in both the hippocampal DG and SVZ areas. TGF-alpha treatment caused a significant decrease in Bax expression and an increase in Bcl-2 anti-apoptotic protein expression in the hippocampus. Our results showed a significant increase in the number of pyramidal neurons. Memory also improved significantly following TGF-alpha treatment. Our findings proved that TGF-alpha reduced ischemic injury and played a neuroprotective role in the pathogenesis of ischemic injury.

Tuberculosis

epidemiology

TB category; associated factors in Multan.

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Professional Medical Journal-Quarterly[The] 2014; 21 (4): 659-666

Keywords: Risk Factors; Cross-Sectional Studies

Abstract: To determine the risk factors for type of TB category in Multan. A cross-sectional study was conducted

in Nishtar Medical College and Hospital, Multan at Chest and Pulmonology Ward to explore the major factors for the type of TB in Multan, Pakistan. We surveyed 164 patients diagnosed for TB from March 2012 to August 2012. The chi square test was used to find the responsible factors for type of TB category. The data were analyzed by using SPSS 20 software. The mean age of these patients was 40.5, 100 male and 64 female patients. 68.9% of cat-1 and 31.1% patients of Cat-2, 65.3% patients having no education, 35.4% patients were of labor profession working in different scenarios, 76.8% patients have their family income less than ten thousands, 67.7% patients belong to the urban residence, 65.2% patients have poor sanitary condition of their houses, 63.41% patients were smoker and 70.1% patients have TB in their families. On the basis of p-value for each factors, we have found that blood pressure [p=0.0100], already treated [p=0.0000], doctor visited [p=0.0000], smoking habit [p=0.0263] and area [p=0.0020] of patients are statistically significant factors while gender [p=0.7040], Education [p=0.0800], family history [p=0.3090], current ATT period [p=0.7280], weight [p=0.1300], environment [p=0.2590], income level [p=0.3690], profession [p=0.0540] and age [p=0.4130] are the insignificant factors. We have found that blood pressure, already treated, doctor visited, smoking habit and area of patients are the significant factors for type of TB category.

Tumor Markers, Biological

Tumor markers; efficacy of CA-125, CEA, AFP, and beta HCG an institutional based descriptive and prospective study in diagnosis of ovarian malignancy.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 621-627

Keywords: Ovarian Neoplasms; CA-125 Antigen; Carcinoembryonic Antigen; alpha-Fetoproteins; Chorionic Gonadotropin, beta Subunit, Human; Prospective Studies

Abstract: Analysis of serum tumor markers CA-125, CEA, AFP, and beta-HCG in patients with ovarian malignant tumors and correlation of their serum levels with histological types. Institution based descriptive and prospective study. Department of Pathology, Liaquat University of Medical and Health Sciences, Jamshoro from January 2009 to June 2011. One hundred cases, diagnosed as ovarian malignant tumor on H and E staining were selected for study and measurement of serum CA-125, CEA, AFP, and beta-HCG preoperatively and postoperatively in each case. Out of 100 ovarian cancers diagnosed on H and E stain 33 were serous cystadenocarcinoma, 29 mucinous adenocarcinoma, 19 germ cell tumors and 15 sex-cord stromal tumors, 1 endometrioid carcinoma, 1 brenner tumor, 1 clear cell carcinoma and 1 case of NHL. Increased level of CA-125 was seen preoperatively in 33/33 cases of serous cystadenocarcinoma and 24/29 cases of mucinous adenocarcinoma. Surprisingly increased levels were also seen in 10/19 germ cell tumor and 8/15 in sex-cord stromal tumors. CEA is raised in mucinous tumors. AFP and beta-HCG were raised in germ cell tumors and sex cordstromal tumors. Serum tumor marker levels were declined following appropriate therapy of the tumors. Serum tumor markers are useful and important for the detection of ovarian tumors. They may also help in assessment of response to specific treatment, prognosis and follow up of patient.

Urinary Calculi

genetics

Urinary cystine calculi and detection of polymorphism in the SLC3A1 gene in Sudanese children.

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Journal of Taibah University Medical Sciences 2014; 9 (3): 219-223

Keywords: Cystine; Amino Acid Transport Systems, Neutral; Amino Acid Transport Systems, Basic; Exons; Polymorphism, Genetic; Child

Abstract: To investigate polymorphism in exon 8 of the SLC3A1 gene in children with urinary cystine calculi in Khartoum. A semi-quantitative chemical method was used to analyse 175 urinary calculi removed surgically from paediatric patients at Soba Teaching Hospital in Khartoum between October 2005 and May 2009. DNA was extracted with phenol chloroform isoamyl alcohol, and exon 8 of the SLC3A1 gene was amplified in a thermocycler and sequenced with an AB3130 genetic autoanalyser. Of the 175 stones, 10 were cystine calculi [5.7%]. The sex ratio of the patients was 2.3:1 [boys to girls], and the mean age at cystine stone onset was 31.1 +/- 28.2 months [range, 3-125 months]. Of the 10 patients, 8 had a positive family history of calculi formation, 4 had bilateral calculi, 3 had both renal and urinary bladder calculi, and 2 had obstructive acute renal failure. All patients required more than one surgical operation. One patient had a missense mutation M467K in exon 8 of the SLC3A1 gene. The prevalence of cystine calculi among urinary calculi in Sudanese children was 5.7%. A family history was found in 80% of children. A mutation [M467T] was identified at exon 8 of the SLC3A1 gene in one child.

Urinary Incontinence

Urinary incontinence- patient's physical, mental and oral health analysis.

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Pakistan Oral and Dental Journal 2014; 34 (3): 515-519

Keywords: Oral Health; Mental Health; Urinary Incontinence, Stress; Urinary Incontinence, Urge; Questionnaires

Abstract: Urinary incontinence can be distressful and may affect the quality of life to a great extent. Common types of UI are stress incontinence, urge incontinence and mixed incontinence. UI is more prevalent in older people and more frequently diagnosed in females than males. Efforts are made to investigate the primary disorder which causes incontinence, as UI is mostly secondary to an underlying medical condition. This study included patients diagnosed with UI and was conducted during one year period extending from February 2013 to January 2014. The data also constituted of a self-administered questionnaire to access the patient's knowledge regarding their disease. Ethical consent was obtained from the hospital where data were collected and oral and written consents were taken from all the participants prior to their participation. The study included 332 patients with a response rate of 73.7%. Overall, 254 males and 278 females participated. 64.9% of the male participants had urge incontinence followed by 26.6% having stress incontinence, while only 8.44% of the males were diagnosed with mixed incontinence. In females 77.2% had stress incontinence followed by urge incontinence [15.1%] and only 7.3% had Mixed urinary incontinence. 24% of males and 44.3% of females believed that pelvic exercises can prevent or treat UI. 34.6% of the total participants [40% females, 27.9% males] had an understanding that weak anatomy contributes to the development of UI. Stress incontinence is more common in women, while the dominant type in men is urge incontinence. All patients, especially pregnant women should be provided information regarding UI in order to efficiently cope up with the condition if encountered.

Urinary Bladder Neoplasms

drug therapy

The role of tri-modality treatment in bladder preservation of invasive bladder carcinoma: concurrent irradiation and twice weekly gemcitabine.

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Assiut Medical Journal 2013; 37 (1): 75-84

Keywords: Combined Modality Therapy; Radiotherapy, Adjuvant; Deoxycytidine-analogs and derivatives; Carcinoma, Transitional Cell-pathology

Abstract: This study was conducted to evaluate the efficacy of transurethral resection plus chemo radiation in achieving bladder preservation, using conformal radiotherapy and twice weekly Gemcitabine. Thirty seven TCC patients with good performance status, and maximum possible transurethral resection .They received. 46 GY/23 fractions with twice weekly Gemcitabine 30mg/m². An evaluation was done after 2 weeks by cystoscopy and biopsy from the tumor bed. Patients who had a complete response continued in phase II, 20 GY/2 weeks, with twice weekly Gemcitabine 30 mg/m². Patients who had invasive bladder cancer were subjected to radical cystectomy. Thirty two patients had complete response. Treatment schedule was tolerable. It was associated with moderate toxicity that was tolerable apart of patients who developed G3 toxicity (that required treatment interruption till improvement .After 2 years of follow up, 29 patients achieved good local control and the 2 years LRFS was 79%. The 2 years overall survival and bladder intact survival was 70%, 69%, respectively. Trimodality bladder-sparing approach consists of transurethral resection, chemotherapy twice daily using gemcitabine and radiotherapy is well tolerated with high rate of bladder preservation. This approach can be considered a reasonable alternative to cystectomy in the proper selected group.

Vascular Endothelial Growth Factor A

New insights into VEGF-A alternative splicing: key regulatory switching in the pathological process.

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AJMB-Avicenna Journal of Medical Biotechnology 2014; 6 (4): 192-199

Keywords: Alternative Splicing; Neovascularization, Pathologic; Gene Expression; Angiogenesis Inhibitors

Abstract: Vascular endothelial growth factor [VEGF-A] is one of the most important regulatory factors in pathological and physiological angiogenesis. Alternative splicing is a complicated molecular process in VEGF-A

gene expression which adds complexity to VEGF-A biology. Among all VEGF-A exons, alternative splicing of exon 8 is the key determinant of isoform switching from pro-angiogenic VEGF-xxx to anti-angiogenic VEGF-xxxb. This is known as a key molecular switching in many pathological situations. In fact, the balance between VEGF-xxx and VEGF-xxxb isoforms is a critical controlling switch in both conditions of health and disease. Here, the properties of VEGF-xxx and VEGF-xxxb isoforms were discussed and their regulatory mechanism and their roles in certain pathological processes were evaluated. In summary, it was suggested that C-terminal VEGF-A alternative splicing can provide a new treatment opportunity in angiogenic diseases.

Vascular Surgical Procedures

methods

Combined spinal epidural anesthesia in patients with dilated cardiomyopathy undergoing vascular surgery in the lower half of the body.

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Assiut Medical Journal 2013; 37 (1): 173-180

Keywords: Cardiomyopathy, Dilated; Anesthesia, Epidural-methods; Hemodynamics; Anesthesia, Spinal-methods; Length of Stay; Treatment Outcome

Abstract: Dilated cardiomyopathy [DCM] is characterized by ventricular dilatation and impaired systolic cardiac junction. Anesthetic management, of patients with cardiomyopathy with reduced systolic junction, is challenging and may be associated with high mortality. The purpose of this study was to evaluate the hemodynamic effects of combined spinal epidural anesthesia [CSEA] in patients with dilated cardiomyopathy, underwent vascular surgery in the lower half of the body, in addition to assess the safety of this anesthetic technique in the early postoperative period. After approval by local research ethics committee of the Faculty of Medicine, and informed written consent obtained from all patients, 24 patients having dilated cardiomyopathy, subjected to vascular surgery in the lower half of the body under CSEA. The effects of CSEA on hemodynamics; IBP, HR and CVP [measured at base line and then every 10 min], in addition to cardiac complications during the hospital stay period were studied. patients had significant decrease in MAP in all readings after the base line one with maximal decrease at 70 min [-14.7%], while HR increased significantly in all readings after the base line one except the last reading with maximal increase at 50 min [13.1%]. CVP showed insignificant changes in all readings except at 90 and 100 min which showed significant increase [$p < 0.05$]. Four patients developed ECG changes in the postoperative period, while no significant changes in EF. combined spinal epidural anesthesia [CSEA] may be an alternative to general anesthesia in patients with dilated cardiomyopathy undergoing vascular surgery in the lower half of the body, as our patients had a largely inevitable postoperative recovery with good pain control.

Ventriculostomy

Endoscopic third ventriculostomy [ETV]; outcome.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 794-797

Keywords: Endoscopy; Third Ventricle; Treatment Outcome; Hydrocephalus

Abstract: To know the surgical outcome of endoscopic third ventriculostomy [ETV] in non communicating hydrocephalus. This study was conducted in Abaseen Hospital, Peshawar, from 13th December 2010 to 12th October 2011. Patients with non-communicating hydrocephalus, irrespective of gender discrimination were included in this study. Patients with communicating hydrocephalus, patients below two years of age and hydrocephalus with infected CSF or hemorrhage were excluded. Hydrocephalus was diagnosed on CT scan brain. The procedure was done under general anesthesia. Clinical Outcome of ETV was evaluated by the time of discharge and on subsequent follow up visits i.e. monthly for the first three months and then at six months. Any patient who subsequently needed VP shunting after the ETV procedure was described as having treatment failure. We operated 27 patients during our study period. Age ranged from 2 years to 57 years with mean age 20.8 years. There were 16[59.26%] males and 11[40.74%] females. Etiologically, 4th ventricular tumors was present in 9 patients [33.33%], tuberculous meningitis in 8[29.62%], aqueductal stenosis in 7[25.92%], brain stem glioma in 1[3.70%], cerebellar haemangioblastoma in 1[3.70%] and pineal tumor [3.70%] with infra tentorial extension in 1 [3.70%] patient. The procedure was successful in 24[88.89%] patients and converted to ventriculoperitoneal shunts in 3[11.11%] cases. Post operatively CSF leakage was present in 2 [7.40%] patients, transient memory loss in 1[3.70%], pneumocephalus in 1[3.70%] and pseudomeningocele in 1[3.70%] patients. Endoscopic third ventriculostomy is a good alternative to the VP shunt in cases of non-communicating hydrocephalus. Although ETV does have some complications but these are transient and can be minimized with proper patient selection and meticulous surgical technique.

Vitamin D

blood

[A comparison of the relationship between the serum level of vitamin D and coronary artery disease in patients with type 2 diabetes].

Parham, Mahmoud; Mohammadi, Masoud; Bagherzadeh, Mohammad; Hosseinzadeh, Fatemeh; Eshraghi, Mohsen; Bakhtiari, Lida; Zaheri, Mohammad Mehdi; Hejazi, Seyed Fakhroldin

Qom University of Medical Sciences - Clinical Research Development Center

Qom University of Medical Sciences Journal 2014; 8 (4): 13-18

Keywords: Coronary Artery Disease; Diabetes Mellitus, Type 2; Case-Control Studies

Abstract: Cardiovascular diseases are among the most common causes of death and disability in patients with type 2 diabetes. According to some studies, Vitamin D deficiency is associated with risk of type 2 diabetes and cardiovascular diseases. The aim of this study was to compare the serum level of Vitamin D between diabetic patients with coronary artery diseases and control group. In this case-control study, patients with diabetes referred to Shahid Beheshti Hospital of Qom for coronary angiography, were divided into two groups of positive angiography [case group] and negative angiography [control group]. In this study, stenosis of the lumen of at least one coronary artery more than 50% was considered as positive angiography and suffering from coronary artery disease, and stenosis lower than 50% was considered as negative angiography. Personal characteristics, biographical information, consisting of age, gender, history of hypertension, hyperlipidemia, smoking, history of coronary artery disease, and family history were recorded using a questionnaire. Venous blood samples of the patients were taken to measure the serum level of 25-hydroxy Vitamin D, and the two groups were compared in terms of Vitamin D level. The mean serum level of 25-hydroxy Vitamin D was 35.09 +/- 26.41ng/ml. Also, there was no significant difference between case and control groups. The level was 35.67 +/- 29.58ng/ml in the case group and 34.50 +/- 23.30ng/ml in control group. The level of Vitamin D in patients with cardiac disease had no significant difference. The results of this study indicated that there was no relationship between serum level of 25-hydroxy Vitamin D in type 2 diabetic patients and stenosis of coronary arteries.

Xeroderma Pigmentosum Group D Protein

Association between XPD [Lys751Gln] polymorphism and lung cancer risk: a population-based study in Iran.

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Cell Journal [Yakhteh] 2014; 16 (3): 309-314

Keywords: Polymorphism, Genetic; Lung Neoplasms; Risk; Polymorphism, Restriction Fragment Length; Case-Control Studies; Polymerase Chain Reaction; Genotyping Techniques

Abstract: People are usually susceptible to carcinogenic aromatic amines, present in cigarette smoke and polluted environment, which can cause DNA damage. Therefore, maintenance of genomic DNA integrity is a direct result of proper function of DNA repair enzymes. Polymorphic diversity could affect the function of repair enzymes and thus augment the risk of different cancers. Xeroderma pigmentosum group D [XPD] gene encodes one of the most prominent repair enzymes and the polymorphisms of this gene are thought to be of importance in lung cancer risk. This gene encodes the helicase, which is a component of transcription factor IIH and an important part of the nucleotide excision repair system. Studies reveal that individuals with Lys751Gln polymorphism of XPD gene have a low repairing capacity to delete the damages of ultraviolet light among other XPD polymorphisms. In this case-control study, first Lys751Gln polymorphism was genotyped, then its association with lung cancer risk was analyzed. Genomic DNA was extracted from the whole blood sample of 640 individuals from Iran [352 healthy individuals and 288 patients]. Allele frequencies and heterozygosity of Lys751Gln polymorphism were determined using polymerase chain reaction-restriction fragment length polymorphism method. According to statistical analyses, lung cancer risk in individuals with Lys751Gln polymorphism [Odd Ratio=1.8, 95% Confidence Interval 0.848-3.819] is approximately twice as high as that of Lys/Lys genotype, however 751Gln/Gln genotype did not relate to lung cancer risk [Odd Ratio=0.7, 95% Confidence Interval 0/307-1/595]. This study suggests that heterozygous polymorphism [Lys/Gln] increases the sensitivity of lung cancer risk, while homozygous polymorphism [Lys/Lys] probably decreases its risk and C allele frequency shows no remarkable increase in the patients.

Yttrium

Production of yttrium aluminum silicate microspheres by gelation of an aqueous solution containing yttrium and aluminum ions in silicone oil.

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Institute of Radiation Problems

International Journal of Radiation Research 2014; 12 (2): 179-187

Keywords: Aluminum; Silicates; Microspheres; Silicone Oils; Microscopy, Electron, Scanning; X-Ray Diffraction; Spectroscopy, Fourier Transform Infrared; Photoelectron Spectroscopy

Abstract: Radioactive yttrium glass microspheres are used for liver cancer treatment. These yttrium aluminum silicate microspheres are synthesized from yttrium, aluminum and silicone oxides by melting. There are two known processes used to transform irregular shaped glass particles into microspheres, these 'spheroidization by flame' and 'spheroidization by gravitational fall in a tubular furnace'. Yttrium aluminum silicate microspheres with the approximate size of 20-50 microm were obtained when an aqueous solution of YCl₃ and AlCl₃ was added to tetraethyl orthosilicate [TEOS] and pumped in to silicone oil and stirred constantly the temperature of 80°C. The resulting spherical shapes were then investigated for crystallization, chemical bonds, composition and distribution of elements by scanning electron microscopy [SEM], X-ray diffraction [XRD], Fourier transform infrared spectroscopy [FTIR], carbon/sulfur analysis, X-ray photoelectron spectroscopy [XPS] and SEM/EDS analysis. The particles produced by the above-mentioned method were regular and nearly spherical in shape. The results of topographical analysis of a cross-section showed that form of the microspheres had formed a 'boiled egg' structure. This method has an advantage over other methods in that the process does not require high temperatures. This paper reports on a novel method to produce yttrium glass microspheres. The resulting microspheres were formed with a silicon crust so the proposed method is expected to be suitable for application in the production of radioactive seed sources for implantation in tumors and cancer tissue.

Zygomatic Fractures

diagnosis

Isolated bilateral zygomatic arch fracture; an unusual case.

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Professional Medical Journal-Quarterly [The] 2014; 21 (4): 820-823

Keywords: Zygomatic Fractures-therapy; Zygoma; Catheters

Abstract: Zygomatic fractures are the most common facial fractures or second in frequency after the nasal fractures. The high incidence of zygomatic fractures probably relates to its prominent position in the facial skeleton hence it is frequently exposed to fractures. This case report presents an isolated bilateral zygomatic arch fracture that was been reduced by Gille's temporal approach and stabilized using foley's balloon catheter. This study highlights the importance of early diagnosis and timely treatment to reduce the morbidities.

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- Nakagawa, Atsuko**
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- Nakagawara, Akira**
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- Naqvi, Syed Kashif**
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- Naranjo Sintes, Ramon**
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- Nasri, Hamid**
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- Nassef, Noha A.H.**
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- Nawaz, Zunaira**
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- Neshasteh Riz, Ali**
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- Nikfarjam, Haniyeh**
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- Niromanesh, Shirin**
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- Noori, Shafaq**
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- Okumus, Nurullah**
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- Osama, Dalia**
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- Osman, Samy M.**
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- Owji, Aliakbar**
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- Pandya, Haren**
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- Qureshi, Khalid Mahmood**
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- Qureshi, Sumaira Rauf**
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- Radwan, Moustafa E.M.**
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- Radwan, Salma**
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- Raei, Mahdi**
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- Rafieian Kopaei, Mahmoud**
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- Rahdani, Rozhin**
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- Rahimi, Pooneh**
METHANOBREVIBACTER
- Rahimian Boogar, I.**
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- Rahman, Ajijur**
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- Rahman, Noor**
HUMERAL FRACTURES (therapy)
- Rahmani, Abdolrasoul**
BODY TEMPERATURE
- Rahmani, F.**
BORON NEUTRON CAPTURE THERAPY
- Rais, Heena**
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- Rajput, Fozia**
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- Rajput, Tausif Ahmed**
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- Rangha, Ali Nawaz**
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- Rashad, Alaa**
DIABETES MELLITUS, TYPE 2 (complications)
- Rasheed, Khalid A.**
FUNGI
- Rasheed, Tazeen**
THROMBOCYTOPENIA (epidemiology)
- Rashidi, Ladan**
FISH OILS
- Rasoulian, Fatemeh**
CARNITINE (pharmacology)
- Rastegarnia, Abdolreza**
SPERMATOCYTES
- Rasti, Mozghan**
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- Raza, Ali**
TOBACCO
- Rehman, Abdur**
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- Rezaei, Abbas**
TH17 CELLS
- Rezaei, Halimeh**
XERODERMAPIGMENTOSUM GROUP D PROTEIN
- Rezaei, Hojatollah**
XERODERMAPIGMENTOSUM GROUP D PROTEIN
- Rezaie, Mahdi**
RESISTANCE TRAINING
- Rezasoltani, Asghar**
RESISTANCE TRAINING
- Riaz ur Rehman**
VENTRICULOSTOMY
- Riaz, Nabeela**
NOSE DEFORMITIES, ACQUIRED (rehabilitation)
- Ribeiro, Antonio Jose Dias**
LINITIS PLASTICA (diagnosis)
- Riekert, Kristin A.**
CYSTIC FIBROSIS
- Rios Pelegrina, Rosa**
EOSINOPHILIA (diagnosis)
- Rizwan, Saher**
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- Robati, Reza**
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- Rombouts, Ch.**
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- Rostami, M.**
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- Rostamkhani, N.**
ONCORHYNCHUS MYKISS (growth and development)
- Roudsari, Rouhollah Vahabpour**
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- Saba, Aleshba**
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- Sabbaghian, Marjan**
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- Sabokrouh, Abdolreza**
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- Sadat, Seyed Mehdi**
METHANOBREVIBACTER
- Saeed, Muhammad**
HYPOGLYCEMIA
- Saghebjo, M.**
DIABETES MELLITUS, EXPERIMENTAL
- Sahito, Badaruddin**
FRACTURE FIXATION, INTERNAL
- Sahito, Rafique Ahmed**
HYDRONEPHROSIS (congenital)
- Sahjpaul, Ramesh L.**
SPINAL CORD DISEASES (diagnosis)
- Said, Mahmoud M.**
PARABENS (toxicity)
- Sajjad, Reema**
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- Salem, Ahmed M.**
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- Saqib, Aqdas**
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- Saqib, Muhammad**
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- Sarwar, Ghulam**
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- Sasaninejad, Zahra**
CARNITINE (pharmacology)
- Sattar, Anam**
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- Sayyed, Ilayam G.**
OVARIECTOMY (adverse effects)
- Scharaf, Neven**
HEALTH KNOWLEDGE, ATTITUDES, PRACTICE
- Seidi, Arshin Abbaspour**
RESISTANCE TRAINING
- Senthilkumar, S.**
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- Set, Turan**
MYOCARDIAL INFARCTION (epidemiology)
- Shafiq ur Rahman**
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- Shah, Ahmad**
DRY SOCKET (epidemiology)
- Shah, Faaiz Ali**
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- Shah, Mewat**
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- Shah, Syed Zulfiquar Ali**
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- Shahnawaz, Danish**
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- Shahverdi, Abdolhossain**
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- Shahwani, Irfan Murtaza**
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- Shaikh, Abdul Hafeez**
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- Shalaby, Sherein Abdel Hamid**
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- Shams Ur Rehman**
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- Shamshiri, Ahmadreza**
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- Sharma, N.S.**
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- Shawebkeh, Aymen Daoud**
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- Sheikh, M. Saleem**
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- Sheng, Ji Fang**
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- Sheng, Zi Ke**
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- Shuja, Samia**
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- Shumaila, Shaikh**
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- Sichani, M.R. Teimoori**
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- Siddiqui, Adel Zia**
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- Siddiqui, Humayun Kaleem**
STERILIZATION
- Siddqui, Humayun Kaleem**
ARECA
- Simsek, Gulcin Guler**
MITOMYCIN
- Simsek, Hulya**
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- Siyal, Abdul Rehman**
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- Sobhani, Aligholi**
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- Sobuh, Mohammad**
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- Sohail, Mohammad Tariq**
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- Solangi, Naveed Ahmed**
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- Soleimani, Mansoorreh**
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- Soleimani, Masoud**
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- Soliman, Hanan A.**
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- Sonia, Suchita Alia**
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- Soofi, A.**
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- Soomro, Bashir Ahmed**
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- Soomro, Maqsood Ahmed**
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- Tabatabaie, Seyed Mahdi**
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- Tabbouche, Omar Samir**
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- Taghizadeh Jahed, Masoud**
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- Tanveer, Waqas**
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DENTAL PROSTHESIS RETENTION
- Tanwir, Farzeen**
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NEUTROPENIA (drug therapy)
- Tariq, Maliha**
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- Tashayoe, Hamid Reza**
POLYPROPYLENES
- Tawfeek, Mohammed**
BRAIN NEOPLASMS (surgery)
- Tehrani, F. Ramezani**
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- Thabet, Bahgat A.H.**
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- Thaman, Deepa**
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- Torun, Emel**
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- Ul Haq, Ehsan**
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- Umer, Naila**
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- Umutoglu, Tarik**
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- Uzair, Fatima**
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- Vaisi Raygani, Asad**
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- Vakili, Behnam**
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- Vakily, Habib**
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- Vargol, Erdem**
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- Vatani, Javad**
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Vazirrad, Vahid
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Volterrani, Duccio
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Wahaj, Aiyesha
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RECTAL NEOPLASMS
COLORECTAL NEOPLASMS (drug therapy)

Wang, M.P.H. Yuan
RHABDOMYOSARCOMA, EMBRYONAL
(diagnosis)
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Waqar, Zubia
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Waqarunnisa
DRY SOCKET (epidemiology)

Xiao Yu, L.
BLOOD (radiation effects)

Xin, Y.
BLOOD (radiation effects)

Yaghmaei, Parichehr
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Yamanel, Kivanc
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Yang, Sheng Shun
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Yaseen, Nada
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Yasir, Saadia
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Ye, Jin
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Yeh, Hong Zen
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Yeh, Yung Sung
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Young Ku, HEO
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Youssef, Adel
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Yue, Hui
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Zafar, Muhammad Sohail
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Zaheer, Sana
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Zaheri, Mohammad Mehdi
VITAMIN D (blood)

Zaib, Nadia
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Appendix II

**List of EMR Journals Indexed in
IMEMR**

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Journal	ISSN
Afghanistan (2)	
Afghan Medical Journal	N/A
AFJPH-Afghanistan Journal of Public Health	2308-2895
Bahrain (3)	
Arab Journal for Food and Nutrition	1608-8352
Bahrain Medical Bulletin	1012-8298
JBMS-Journal of the Bahrain Medical Society	1015-6321
Egypt (140)	
AAMJ-AI-Azhar Assiut Medical Jsrnal	1687-1693
African Journal of Urology	1110-5704
Afro-Arab Liver Journal	1687-224X
Ain-Shams Journal of Forensic Medicine and Clinical Toxicology	1687-1030
Ain-Shams Medical Journal	0002-2144
AJAIC-Alexandria Journal of Anaesthesia and Intensive Care	N/A
AJM-Alexandria Journal of Medicine	2090-5068
AI-Azhar Journal of Dental Science	1110-6751
AI-Azhar Medical Journal	1110-0400
Alexandria Dental Journal	1110-015X
Alexandria Journal of Food Science and Technology	1687-3920
Alexandria Journal of Hepatogastroenterology	2090-1879
Alexandria Journal of Pediatrics	1687-9945
Alexandria Journal of Pharmaceutical Sciences	1110-1792
Alexandria Journal of Veterinary Science [AJVS]	1110-2407
Alexandria Medical Journal [The]	0516-5849
Annals of Pediatric Surgery	1687-4137
Applied Endocrinology in Egypt	1110-1776
Arab Family Health and Population	N/A
Arab Journal of Biotechnology	1110-6875
Arab Journal of Gastroenterology	1687-1979
Arab Journal of Laboratory Medicine [The]	1110-1822
ASJOG-Ain-Shams Journal of Obstetrics and Gynecology	1697-2193
ASNJ-Alexandria Scientific Nursing Journal	1687-3858
Assiut Medical Journal	1110-0494
Assiut University Bulletin for Environmental Researches	1110-6107
Assiut Veterinary Medical Journal	N/A

Journal	ISSN
Benha Medical Journal	1110-208X
Bulletin of Alexandria Thoracic Association	1687-997X
Bulletin of Faculty of Pharmacy-Cairo University	1110-0931
Bulletin of Faculty of Physical Therapy-Cairo University	1110-6611
Bulletin of Pharmaceutical Sciences-Assiut University	1110-0052
Bulletin of the Faculty of Science-University of Alexandria	0568-9619
Bulletin of the National Nutrition Institute of the Arab Republic of Egypt	N/A
Bulletin of the National Research Centre	1110-0591
Bulletin of the Ophthalmological Society of Egypt	0078-5342
Childhood and Development Quarterly	1110-8681
Clinical Diabetes	0891-8929
EDJ-Egyptian Dental Journal	0070-9484
Egyptian Heart Journal [The]	1110-2608
Egyptian Journal of Anatomy [The]	1110-2144
Egyptian Journal of Biomedical Engineering	1012-5558
Egyptian Journal of Biophysics and Biomedical Engineering	1110-8525
Egyptian Journal of Breastfeeding	N/A
Egyptian Journal of Bronchology [The]	1687-8426
Egyptian Journal of Cardiothoracic Anesthesia	1687-9090
Egyptian Journal of Cataract and Refractive Surgery [The]	N/A
Egyptian Journal of Chemistry	0449-2285
Egyptian Journal of Chest Diseases and Tuberculosis [The]	0422-7638
Egyptian Journal of Community Medicine [The]	1110-1865
Egyptian Journal of Dermatology and Andrology	1110-7650
Egyptian Journal of Diabetes [The]	N/A
Egyptian Journal of Food Science	1110-0192
Egyptian Journal of Genetics and Cytology	0046-161X
Egyptian Journal of Histology [The]	1110-0559
Egyptian Journal of Hospital Medicine [The]	1687-2002
Egyptian Journal of Immunology [The]	1110-4902
Egyptian Journal of Medical Human Genetics [The]	1110-8630
Egyptian Journal of Medical Laboratory Sciences	1110-5593
Egyptian Journal of Microbiology	0022-2704
Egyptian Journal of Neonatology [The]	1110-8991
Egyptian Journal of Neurology, Psychiatry and Neurosurgery [The]	1110-1083

Journal	ISSN
Egyptian Journal of Nutrition	1687-1235
Egyptian Journal of Nutrition and Health	1687-7950
Egyptian Journal of Occupational Medicine	1110-1881
Egyptian Journal of Otolaryngology [The]	1012-5574
Egyptian Journal of Paediatrics [The]	1687-1677
Egyptian Journal of Pediatric Allergy and Immunology [The]	1687-1642
Egyptian Journal of Pharmaceutical Sciences	0301-5068
Egyptian Journal of Physiological Sciences	0301-8660
Egyptian Journal of Psychiatry [The]	1110-1105
Egyptian Journal of Schistosomiasis and Infectious and Endemic Diseases	1110-7278
Egyptian Journal of Surgery [The]	1110-1121
Egyptian Journal of Urology	1110-5712
Egyptian Journal of Veterinary Science	1110-0222
Egyptian Liver Journal	2090-6218
Egyptian Medical Journal of the National Research Center	1687-1278
Egyptian Orthodontic Journal	1110-435x
Egyptian Orthopaedic Journal [The]	1110-1148
Egyptian Pharmaceutical Journal [National Research Center]	1687-4315
Egyptian Population and Family Planning Review [The]	1110-1156
Egyptian Rheumatologist [The]	1110-1164
Egyptian Rheumatology and Rehabilitation	1110-161X
Egyptian Science Magazine [The]	1687-3815
EJB-Egyptian Journal of Biochemistry and Molecular Biology [The]	1687-1502
EJENTAS-Egyptian Journal of ENT and Allied Sciences	2090-0740
EJMM-Egyptian Journal of Medical Microbiology [The]	1110-2179
EMHJ-Eastern Mediterranean Health Journal	1020-3397
Gazette of the Egyptian Paediatric Association [The]	1110-6638
Health Services Journal of the Eastern Mediterranean Region	1014-9899
JESN-Journal of Egyptian Society of Nephrology [The]	N/A
Journal of Advanced Research	2090-1232
Journal of Childhood Studies	2090-0619
Journal of Drug Research of Egypt	0085-2406
Journal of Hepatology, Gastroenterology and Infectious Diseases	1110-0796
Journal of High Institute of Public Health [The]	1110-0036
Journal of Legal Medicine and Forensic Sciences [The]	1110-6468

Journal	ISSN
Journal of the Arab Society for Medical Research	1687-4293
Journal of the Egyptian Medical Association [The]	0013-2411
Journal of the Egyptian National Cancer Institute	1110-0362
Journal of the Egyptian Public Health Association [The]	0013-2446
Journal of the Egyptian Society of Endocrinology, Metabolism and Diabetes [The]	1110-1245
Journal of the Egyptian Society of Obstetrics and Gynecology [The]	0258-3216
Journal of the Egyptian Society of Parasitology	1110-0583
Journal of the Egyptian Society of Pharmacology and Experimental Therapeutics [The]	N/A
Journal of the Egyptian Society of Toxicology	1110-127X
Journal of the Medical Research Institute-Alexandria University	1110-0133
JPC-Journal of Pediatric Club [The]	N/A
Kasr El Aini Journal of Surgery	0022-9237
Kasr El-Aini Medical Journal	N/A
Kidney Forum	1369-3050
Mansoura Journal of Pharmaceutical Sciences	1110-1318
Mansoura Medical Bulletin	1012-5590
Mansoura Medical Journal	1110-211X
MDV-Molecular Diagnosis and Vaccine	1687-2010
Medical Journal of Ahmed Maher Teaching Hospital [The]	N/A
Medical Journal of Cairo University [The]	0045-3803
Medical Journal of Teaching Hospitals and Institutes [The]	1110-2039
Minoufia Medical Journal	1110-2098
MJFCT-Mansoura Journal of Forensic Medicine and Clinical Toxicology	1110-5437
Neonatology	1687-0492
New Egyptian Journal of Medicine [The]	1110-1946
Pan Arab Journal of Orthopaedic and Trauma [The]	1607-4912
Population Researches and Studies	0255-898X
Population Sciences	N/A
Population Studies	1110-1342
PUJ-Parasitologists United Journal	1687-7942
Scientific Journal of Al-Azhar Medical Faculty [Girls] [The]	1110-2381
Scientific Journal of El-Minia Faculty of Medicine [The]	1110-2446
Scientific Medical Journal	1110-5607
Sohag Medical Journal	1110-7529
South Valley Medical Journal	1110-7529

Journal	ISSN
Suez Canal University Medical Journal	1110-6999
Tanta Medical Journal	1110-1415
Tanta Medical Sciences Journal	1687-5788
Veterinary Medical Journal	1110-1423
Zagazig Journal of Forensic Medicine and Toxicology	1687-160X
Zagazig Journal of Pharmaceutical Sciences	1110-5089
Zagazig Medical Association Journal	1110-2322
Zagazig University Medical Journal	1110-1431
Iraq (31)	
Al-Kindy College Medical Journal	1810-9543
Almustansiriya Journal of Pharmaceutical Sciences	1815-0993
Annals of the College of Medicine-Mosul	0028-1446
Basrah Journal of Surgery	1683-3589
Bulletin of Endemic Disease-Baghdad	0007-4845
DMJ-Dohuk Medical Journal	2071-7326
IMJ-Iraqi Medical Journal	0304-4564
IOJ-Iraqi Orthodontic Journal	1816-0581
IPMJ-Iraqi Postgraduate Medical Journal	1608-8360
Iraqi Army Medical Journal	N/A
Iraqi Journal of Agriculture	1818-6645
Iraqi Journal of Biotechnology	N/A
Iraqi Journal of Community Medicine	1684-5382
Iraqi Journal of Medical Sciences	1681-6579
Iraqi Journal of Microbiology	N/A
Iraqi Journal of Pharmaceutical Sciences	1683-3597
Iraqi Journal of Tropical Disease Researches	1814-0823
Iraqi New Medical Journal	2409-5931
Journal of Baghdad College of Dentistry	1680-0057
Journal of Basic Medical Sciences	N/A
Journal of Community Medicine	N/A
Journal of Dohuk University	1812-7568
Journal of Karbala University	1813-0410
Journal of the Faculty of Medicine-Baghdad	0041-9419
Kufa Medical Journal	N/A
Medical Journal of Basrah University [The]	0253-0759

Journal	ISSN
Medical Journal of Tikrit University [The]	N/A
New Iraqi Journal of Medicine [The]	1817-5562
Risafa Medical Journal	N/A
Scientific Nursing Journal	1812-2388
Zanco Journal of Medical Sciences	1995-5588
Islamic Republic of Iran (228)	
ABJS-Archives of Bone and Joint Surgery [The]	2345-4644
Acta Medica Iranica	0044-6025
Advances in Cognitive Science	1561-4174
AJMB-Avicenna Journal of Medical Biotechnology	2008-2835
Anatomical Sciences Journal	N/A
Anesthesiology and Pain Medicine	2228-7523
Annals of Military and Health Sciences Research	2383-1960
Applied Food Biotechnology	2345-5357
Archive of Breast Cancer	2383-0425
Archives of Clinical Infectious Diseases	2641-2345
Archives of Iranian Medicine	1029-2977
Archives of Trauma Research	2251-953X
Armaghane-danesh	1728-6506
ARYA Atherosclerosis Journal	1735-3955
Asia Oceania Journal of Nuclear Medicine and Biology	2322-5718
Asian Journal of Sports Medicine	2008-000X
Audiology	1735-1936
Avicenna Journal of Phytomedicine [AJP]	2228-7930
Basic and Clinical Neuroscience	2008-126X
BCCR-Basic and Clinical Cancer Research	2228-6527
BEAT-Bulletin of Emergency and Trauma	2322-2522
Bina Journal of Ophthalmology	1026-6399
Cell Journal [Yakhteh]	2228-5806
DARU-Journal of Pharmaceutical Sciences	1560-8115
DENA-Quarterly Journal of Yasuj Faculty of Nursing and Midwifery	1735-8450
Dermatology and Cosmetic Quarterly	2008-7470
DRJ-Dental Research Journal	1735-3327
EBNESINA-Medical Journal of Military Medicine [The]	1735-9503
Endovascular Journal	2008-1812

Journal	ISSN
Feyz-Journal of Kashan University of Medical Sciences	1029-7855
Frontiers in Biomedical Technologies	2345-5829
Gastroenterology and Hepatology from Bed to Bench	2010-2258
Genetics in the 3rd Millennium	2423-7159
Govaresh	1560-7186
HAKIM Research Journal	1561-252X
HAYAT-Journal of Faculty of Nursing and Midwifery [The]	1735-2215
Health Information Management	1735-7853
Hepatitis Monthly	1735-143X
Homa-ye-Salamat	2008-2002
Hormozgan Medical Journal	1735-2223
Hospital-Journal of Iranian Scientific Hospital Association	2008-1928
IBJ-Iranian Biomedical Journal	1028-852X
IEJ-Iranian Endodontic Journal	1735-7497
IHJ-Iranian Heart Journal	1735-7306
IJBC-Iranian Journal of Blood and Cancer	2008-4595
IJB-Iranian Journal of Biotechnology	1728-3043
IJCBNM-International Journal of Community Based Nursing and Midwifery	2322-2476
IJCN-Iranian Journal of Child Neurology	1735-4668
IJDO-Iranian Journal of Diabetes and Obesity	2008-6792
IJEM-Iranian Journal of Endocrinology and Metabolism	1683-4844
IJFS-International Journal of Fertility and Sterility	2008-076X
IJHOSCR-International Journal of Hematology-Oncology and Stem Cell Research	2008-2207
IJHPM-International Journal of Health Policy and Management	N/A
IJHS-Iranian Journal of Health Sciences	2322-553X
IJI-Iranian Journal of Immunology	1735-1383
IJKD-Iranian Journal of Kidney Diseases	1735-8582
IJMCM-International Journal of Molecular and Cellular Medicine	2251-9637
IJME-Iranian Journal of Medical Education	1608-9359
IJM-Iranian Journal of Microbiology	2008-3289
IJMS-Iranian Journal of Medical Sciences	0253-0716
IJN-Iranian Journal of Neonatology	2251-7510
IJOH-International Journal of Occupational Hygiene	2008-5109
IJO-Iranian Journal of Orthodontics	1735-5087
IJP-International Journal of Pediatrics	2345-5047

Journal	ISSN
IJPM-International Journal of Preventive Medicine	2008-7802
IJPR-Iranian Journal of Pharmaceutical Research	1735-0328
IJRM-International Journal of Reproductive Biomedicine	2476-4108
IJVM-Iranian Journal of Veterinary Medicine	2251-8894
International Cardiovascular Research Journal	2251-9130
International Journal of Endocrinology and Metabolism	1726-913X
International Journal of Environmental Research	1735-6865
International Journal of Environmental Science and Technology	1735-1472
International Journal of High Risk Behaviors and Addiction	2251-8711
International Journal of Mycobacteriology	2212-5531
International Journal of Occupational and Environmental Medicine	2008-6520
International Journal of Organ Transplantation Medicine	2008-6490
International Journal of Radiation Research	2322-3243
International Journal of Women's Health and Reproduction Sciences	N/A
Iran Journal of Nursing	2008-5923
Iran Occupational Health	1735-5133
Iranian Journal of Allergy, Asthma and Immunology	1735-1502
Iranian Journal of Arthropod-Borne Diseases	1735-7179
Iranian Journal of Basic Medical Sciences	2008-3866
Iranian Journal of Cancer Prevention	2008-2398
Iranian Journal of Dermatology	0021-082X
Iranian Journal of Diabetes and Lipid Disorders	1726-7544
Iranian Journal of Environmental Health Science and Engineering	1735-1979
Iranian Journal of Epidemiology	1735-7489
Iranian Journal of Health and Environment	2008-2029
Iranian Journal of Medical Microbiology	1735-8612
Iranian Journal of Medical Physics	1735-160X
Iranian Journal of Nuclear Medicine	1681-2824
Iranian Journal of Nursing and Midwifery Research [IJNMR]	1735-9066
Iranian Journal of Nursing Research	1735-7012
Iranian Journal of Nutrition Sciences and Food Technology	1735-7756
Iranian Journal of Obstetric, Gynecology and Infertility [The]	1680-2993
Iranian Journal of Ophthalmology	1735-4153
Iranian Journal of Otorhinolaryngology	1560-1293
Iranian Journal of Parasitology	1735-7020

Journal	ISSN
Iranian Journal of Pediatrics	2008-2142
Iranian Journal of Psychiatric Nursing	2345-2501
Iranian Journal of Psychiatry	1735-4587
Iranian Journal of Psychiatry and Behavioral Sciences	1735-8639
Iranian Journal of Psychiatry and Clinical Psychology [IJPCP]	1735-4315
Iranian Journal of Public Health	0304-4556
Iranian Journal of Radiology	1735-1065
Iranian Journal of Veterinary Research	1728-1997
Iranian Rehabilitation Journal	1735-3602
JBUMS-Journal of Babol University of Medical Sciences	1561-4107
JCR-Journal of Craniomaxillofacial Research	5489-2345
JCVTR-Journal of Cardiovascular and Thoracic Research	2008-5117
JDB-Journal of Dental Biomaterials	2383-3971
JDT-Journal of Dentistry Tehran University of Medical Sciences	1735-2150
JFH-Journal of Fasting and Health	N/A
JMB-Journal of Medical Bacteriology	2251-8649
JMR-Journal of Medical Research	1728-1962
JMRH-Journal of Midwifery and Reproductive Health	N/A
JNE-Journal of Nursing Education	3812-2322
JNMS-Journal of Nursing and Midwifery Sciences	2345-5756
JNP-Journal of Nephropathology	2251-8363
Journal of Anesthesiology and Pain	2228-6659
Journal of Arak University of Medical Sciences-Rahavard Danesh	1735-5338
Journal of Cardio-Thoracic Medicine	2345-2447
Journal of Clinical Excellence	2322-391X
Journal of Dental Materials and Techniques	2322-4150
Journal of Dental Medicine-Tehran University of Medical Sciences	1024-641X
Journal of Dental Research, Dental Clinics, Dental Prospects	2008-210X
Journal of Dental School-Shahid Beheshti University of Medical Sciences	1735-7683
Journal of Dentistry-Shiraz University of Medical Sciences	1728-3426
Journal of Environmental Studies	1025-8620
Journal of Family and Reproductive Health	1735-8949
Journal of Fundamentals of Mental Health [The]	1028-6918
Journal of Gorgan University of Medical Sciences	1562-4765
Journal of Guilan University of Medical Sciences	2008-4048

Journal	ISSN
Journal of Health Administration	2008-1200
Journal of Health and Safety at Work	2251-807X
Journal of Health Promotion Management [JHPM]	2251-8614
Journal of Health Scope	2251-8959
Journal of Injury and Violence Research	2008-2053
Journal of Isfahan Dental School	1735-255X
Journal of Isfahan Medical School	1027-7595
Journal of Islamic Dental Association of Iran [The]-JIDA	1024-6428
Journal of Jahrom University of Medical Sciences	2008-7993
Journal of Kerman University of Medical Sciences	1023-9510
Journal of Kermanshah University of Medical Sciences [KUMS]	2251-9068
Journal of Lasers in Medical Sciences	2008-9783
Journal of Mashhad Dental School	1560-9286
Journal of Mazandaran University of Medical Sciences	1735-9260
Journal of Medical Council of Islamic Republic of Iran	1562-1073
Journal of Medical Education	1735-3998
Journal of Medicinal Plants	1684-0240
Journal of Minimally Invasive Surgical Sciences	2251-7022
Journal of Modern Rehabilitation	2008-2576
Journal of Nursing and Midwifery Quarterly-Shaheed Beheshti University of Medical Sciences and Health Services	1605-8941
Journal of Ophthalmic and Vision Research	2008-2010
Journal of Patient Safety and Quality Improvement	2345-4482
Journal of Periodontology and Implant Dentistry	2008-7748
Journal of Qazvin University of Medical Sciences [The]	1561-3666
Journal of Rafsanjan University of Medical Sciences	1735-3165
Journal of Rehabilitation	1607-2960
Journal of Reproduction and Infertility	2228-5482
Journal of Research in Behavioural Sciences	1735-2029
Journal of Research in Dental Sciences	2008-4676
Journal of Research in Health Sciences [JRHS]	2228-7795
Journal of Research in Medical Sciences	1735-5311
Journal of Sabzevar University of Medical Sciences	1606-7487
Journal of Safety Promotion and Injury Prevention	2345-2455
Journal of School of Public Health and Institute of Public Health Research	1735-7586
Journal of Screening and Geographical Medicine	1735-7594

Journal	ISSN
Journal of Shaheed Sadoughi University of Medical Sciences and Health Services	1562-272X
Journal of Shahrekord University of Medical Sciences	1735-1448
Journal of Veterinary Research	2008-2525
Journal of Zahedan University of Medical Sciences and Health Services	1735-076X
Journal of Zanjan University of Medical Sciences and Health Services	1606-9366
JPC-Journal of Pharmaceutical Care	2322-4630
JPN-Journal of Pediatric Nephrology	N/A
JRH-Journal of Research and Health	2251-6395
JRMS-Journal of Research in Medical Sciences	1735-1995
JRRS-Journal of Research in Rehabilitation Sciences	1735-7519
Jundishapur Journal of Microbiology [JJM]	2008-3645
Jundishapur Journal of Natural Pharmaceutical Products	1735-7780
Jundishapur Scientific Medical Journal	2252-052x
KOOMESH-Journal of Semnan University of Medical Sciences	1608-7046
Medical Journal of Mashad University of Medical Sciences	1735-4013
Medical Journal of Tabriz University of Medical Sciences and Health Services	1608-5671
Medical Journal of the Islamic Republic of Iran	1016-1430
Medical Laboratory Journal	1735-9007
Medical Sciences Journal of Islamic Azad University	1023-5922
Medical-Surgical Nursing Journal	2322-178X
MEJC-Middle East Journal of Cancer	2008-6709
Middle East Journal of Digestive Diseases	2008-5230
Modares Journal of Medical Sciences, Pathobiology	1562-9554
Nanomedicine Journal	2322-3049
Nephro-Urology Monthly	2251-7006
Novelty in Biomedicine	2345-3346
Nursing and Midwifery Research	1753-5001
Nursing Practice Today	2383-1154
Nutrition and Food Sciences Research	2383-0441
Ofoogh-E-Danesh	1735-1855
Payavard-Salamat	1735-8132
Payesh-Health Monitor	1680-7626
Pejouhandeh: Bimonthly Research Journal	1735-1022
Qom University of Medical Sciences Journal	1735-7799
Quarterly Journal of Medical Ethics	2008-4374

Journal	ISSN
Quarterly Journal of Medical Law	N/A
Quarterly Scientific Journal of Relief and Rescue	2008-4544
Razi Journal of Medical Sciences	2228-7043
Research in Cardiovascular Medicine	2251-9572
RMM-Research in Molecular Medicine	2322-1348
Salmand-Iranian Journal of Aging	1735-806X
Scientific and Research Journal of Army University of Medical Sciences-JAUMS	1727-1789
Scientific Journal of Forensic Medicine	1027-1457
Scientific Journal of Iranian Blood Transfusion Organization [The]	1027-9520
Scientific Journal of Kurdistan University of Medical Sciences	1560-652X
Social Welfare Quarterly	1735-8191
Strides in Development of Medical Education	1735-4242
Tanaffos	1735-0344
Teb Va Tazkie	1608-2397
Tehran University Medical Journal [TUMJ]	1683-1764
Thrita Student Journal of Medical Sciences	2251-8312
Toloo-e-Behdasht	1728-5127
Trauma Monthly	2251-7464
Urology Journal	1735-1308
WJPS-World Journal of Plastic Surgery	2228-7914
Yafteh Journal	1563-0773
Zahedan Journal of Research in Medical Sciences	N/A
Jordan (9)	
Arab Journal of Psychiatry [The]	1016-8923
Dirasat	1026-3764
Jordan Journal of Pharmaceutical Sciences	1995-7157
Jordan Medical Journal	0446-9283
Journal of the Royal Medical Services	2078-8703
Medical Journal of Islamic World Academy of Sciences	1016-3360
Pan Arab Medical Journal	N/A
Population Bulletin of ESCWA	0258-1914
Smile Dental Journal	2072-473X
Kuwait (6)	
Bulletin of Nutrition and Food	N/A
Bulletin of the Kuwait Institute for Medical Specialization	N/A

Journal	ISSN
GJO-Gulf Journal of Oncology [The]	2078-2101
KMJ-Kuwait Medical Journal	0023-5776
Medical Arabization	N/A
Medical Principles and Practice	1011-7571
Lebanon (10)	
ACES-Actualites Cliniques et Scientifiques	1683-8068
AJU-Arab Journal of Urology	2090-598X
Arab Dental Journal	N/A
IAJD-International Arab Journal of Dentistry	2218-0885
JLDA-Journal of the Lebanese Dental Association	1810-9632
Journal of the Arab Neonatology Forum	1812-1756
Lebanese Science Journal	1561-3410
LMJ-Lebanese Medical Journal	0023-9852
Middle East Journal of Anesthesiology	0544-0440
Middle East Journal of Family Medicine	N/A
Libya (6)	
DMJ-Derna Medical Journal	N/A
Garyounis Medical Journal	0254-7198
JMJ-Jamahiriya Medical Journal	2079-1216
Libyan Journal of Infectious Diseases [The]	N/A
LJM-Libyan Journal of Medicine	1993-2820
Tabib Attifil Alarabi	N/A
Morocco (7)	
Bulletin Epidemiologique	0851-8238
ISESCO Journal of Science and Technology	2028-8077
Journal du Practicien	1113-5667
Maroc Medical	0253-4053
Revue Marocaine de Chirurgie Orthopedique et Traumatologique	N/A
Revue Marocaine de Medecine et Sante	0251-0758
Revue Marocaine des Maladies de L'Enfant	N/A
Oman (3)	
Oman Journal of Ophthalmology	0974-620X
Oman Medical Journal	1999-768X
SQUMJ-Sultan Qaboos University Medical Journal	2075-051X

Journal	ISSN
Pakistan (85)	
Al-Shifa Journal of Ophthalmology	1990-3863
Anaesthesia, Pain and Intensive Care	1607-8322
Annals Abbassi Shaheed Hospital and Karachi Medical and Dental College	1563-3241
Annals of Jinnah Postgraduate Medical Centre - Karachi	N/A
Annals of King Edward Medical College	1684-6680
APMC-Annals of Punjab Medical College	2077-9143
Bahria Journal of Professional Psychology	1816-0840
Biomedica	1992-4852
Challenge-Quarterly [The]	0528-7944
Community Medicine	0301-7265
Diabetes Digest	1369-7501
Esculapio	2309-3080
FWU Journal of Social Sciences	1995-1272
GJMS-Gomal Journal of Medical Sciences	1819-7973
Hamdard Medicus	0250-7188
Health [The]	2218-3299
IJEHSR-International Journal of Endorsing Health Science Research	2307-3748
Infectious Diseases Journal of Pakistan	1027-0299
International Journal of Pathology	1810-0155
Isra Medical Journal	2073-8285
JAMC-Journal of Ayub Medical College-Abbotabad-Pakistan	1025-9589
JCPSP-Journal of the College of Physicians and Surgeons Pakistan	1022-386X
JDUHS-Journal of the Dow University of Health Sciences	1995-2198
JIIMC-Journal of Islamic International Medical College [The]	1815-4018
JIMDC-Journal of Islamabad Medical and Dental College	2227-3875
JKCD-Journal of Khyber College of Dentistry	2220-2633
JLUMHS-Journal of the Liaquat University of Medical Health Sciences	1729-0341
JOPDAK-Journal of the Pakistan Dental Association Karachi	1680-2292
Journal of Basic and Applied Sciences	1814-8085
Journal of Medical Sciences	1682-4474
Journal of Medical Sciences	1997-3438
Journal of Nephrology Urology and Transplantation	1606-9331
Journal of Surgery [The]	1681-4517
JPAD-Journal of Pakistan Association of Dermatologists	1560-9014

Journal	ISSN
JPDA-Journal of the Pakistan Dental Association	1680-2292
JPIMS-Journal of Pakistan Institute of Medical Sciences	1683-6928
JPMA-Journal of Pakistan Medical Association	0030-9982
JPMI-Journal of Postgraduate Medical Institute	1013-5472
JPPS-Journal of Pakistan Psychiatric Society	1726-8710
JSOGP-Journal of the Society of Obstetricians and Gynaecologists of Paksitan	N/A
JSP-Journal of Surgery Pakistan International	1817-0242
KMUJ-Khyber Medical University Journal	2072-7763
Lahore Journal of Public Health	N/A
Medical Channel	1681-5491
Medical Forum Monthly	1029-385X
Medical Spectrum [The]	0254-8534
Medicine Today	1813-9876
Mother and Child	0379-2617
PAFMJ-Pakistan Armed Forces Medical Journal	0030-9648
Pakistan Heart Journal	0048-2706
Pakistan Journal of Biochemistry	0300-8185
Pakistan Journal of Chest Medicine	N/A
Pakistan Journal of Clinical Psychology	1019-438X
Pakistan Journal of Community Medicine [The]	N/A
Pakistan Journal of Health	0030-9834
Pakistan Journal of Medical and Health Sciences	1996-7195
Pakistan Journal of Medical Ethics	N/A
Pakistan Journal of Medical Sciences	1682-024X
Pakistan Journal of Neurological Sciences	1990-6269
Pakistan Journal of Neurology	1990-6269
Pakistan Journal of Obstetrics and Gynaecology	N/A
Pakistan Journal of Orthodontics, Pediatric and Community Dentistry	1608-134X
Pakistan Journal of Otolaryngology-Head and Neck Surgery	0257-4985
Pakistan Journal of Pathology	1024-6193
Pakistan Journal of Pharmaceutical Sciences	1011-601X
Pakistan Journal of Pharmacology	0255-7088
Pakistan Journal of Physiology	1819-270X
Pakistan Journal of Psychology	0030-9869
Pakistan Journal of Scientific and Industrial Research	0030-9885

Journal	ISSN
Pakistan Journal of Scientific and Industrial Research Series A: Physical Sciences	2221-6413
Pakistan Journal of Scientific and Industrial Research Series B: Biological Sciences	2221-6421
Pakistan Medical Journal	0031-000X
Pakistan Ophthalmology	0259-3661
Pakistan Oral and Dental Journal	1012-8700
Pakistan Pediatric Journal	0304-4904
PJC-Pakistan Journal of Cardiology	1016-1244
PJMR-Pakistan Journal of Medical Research	0030-9842
PJO-Pakistan Journal of Ophthalmology	0886-3067
POJ-Pakistan Orthodontic Journal	2074-0069
PJPH-Pakistan Journal of Public Health	2225-0891
PJR-Pakistan Journal of Radiology	1607-2006
PJS-Pakistan Journal of Surgery	0258-8552
Proceedings-Shaikh Zayed Postgraduate Medical Institute	N/A
Professional Medical Journal-Quarterly [The]	1024-8919
RMJ-Rawal Medical Journal	0303-5212
Palestine (3)	
Al-Quds Medical Journal	N/A
Annals of Alquds Medicine	1815-2635
PMJ-Palestinian Medical Journal	N/A
Qatar (4)	
Gulf Journal of Dermatology and Venereology [The]	N/A
Heart Views	1995-705X
JEMTAC-Journal of Emergency Medicine, Trauma and Acute Care	1999-7086
Qatar Medical Journal	0253-8253
Saudi Arabia (29)	
Annals of Saudi Medicine	0256-4947
Annals of Thoracic Medicine	1817-1737
Hematology, Oncology and Stem Cell Therapy	1658-3876
International Journal of Diabetes Mellitus	1877-5934
International Journal of Health Sciences	1658-3639
Journal of Epidemiology and Global Health	2210-6006
Journal of Family and Community Medicine	2230-8229
Journal of Infection and Public Health	1876-0341
Journal of King Abdulaziz University-Medical Sciences	1319-1004

Journal	ISSN
Journal of Taibah University Medical Sciences	1658-3612
Journal of the Saudi Heart Association	1016-7315
MEAJO-Middle East African Journal of Ophthalmology	0974-9233
Neurosciences	1319-6138
Pan Arab Journal of Neurosurgery	1319-6995
Rehabilitation International	N/A
Research Centre Bulletin	1019-5335
Saudi Epidemiology Bulletin	1319-3965
Saudi Heart Journal	1018-077X
Saudi Journal of Disability and Rehabilitation	1319-6499
Saudi Journal of Gastroenterology [The]	1319-3767
Saudi Journal of Oto-Rhino-Laryngology Head and Neck Surgery [The]	1319-8491
Saudi Journal of Sports Medicine [The]	1319-6308
Saudi Medical Journal	0379-5284
SDJ-Saudi Dental Journal [The]	1013-9052
SGH Medical Journal	1658-2489
SJA-Saudi Journal of Anaesthesia	1658-354X
SJO-Saudi Journal of Ophthalmology	1319-4534
SPJ-Saudi Pharmaceutical Journal	1319-0164
Urology Annals	0974-7796
Sudan (10)	
AJNT-Arab Journal of Nephrology and Transplantation	1858-554X
Gezira Journal of Health Sciences	1810-5386
JMJ-Juba Medical Journal	N/A
Khartoum Pharmacy Journal	1816-5168
Omdurman Journal of Pharmaceutical Sciences	N/A
SJPH-Sudanese Journal of Public Health	1990-7567
Sudan Journal of Medical Sciences	1858-5051
Sudan Medical Journal	0491-4481
Sudan Medical Monitor	1858-5000
Sudanese Journal of Dermatology	1815-3941
Syrian Arab Republic (10)	
Arab Journal of Pharmaceutical Sciences	1683-0369
Arabic Journal of Forensic Medicine and Criminal Science	N/A

Journal	ISSN
Arabic Medical Journal	N/A
Damascus University Journal for Health Sciences	2072-2265
JABHS-Journal of the Arab Board of Health Specializations	1561-0217
JISHIM-Journal of the International Society for the History of Islamic Medicine	1303-667X
Journal of Clinical Laboratory [The]	1814-411X
Journal of the Arab Board of Medical Specializations	1561-0217
Journal of the Arab Dentist	N/A
Research Journal of Aleppo University-Medical Sciences Series	N/A
Tunisia (9)	
Archives de l'Institut Pasteur de Tunis	0020-2509
Cahiers Medicaux de Tunisie	0300-5291
IDEES-Revue de Perfectionnement Medical et Paramedical	N/A
Maghreb Medical	0330-258X
Revue Maghrebine de Pediatrie [La]	0330-7611
Revue Maghrebine d'Endocrinologie-Diabete et de Reproduction [La]	N/A
Revue Tunisienne d'Infectiologie	1737-8958
SST-Sante et Securite au Travail	N/A
Tunisie Medicale [La]	0041-4131
United Arab Emirates (5)	
EMJ-Emirates Medical Journal	0250-6882
Gulf Medical University: Proceedings	2306-6865
HMJ-Hamdan Medical Journal	2227-2437
International Journal of Diabetes and Metabolism	1606-7754
IRCMJ-Iranian Red Crescent Medical Journal	1561-4395
Yemen (8)	
HJMS-Hadramout Journal of Medical Sciences	2224-1806
Journal of Tropical Nephro-Urology	N/A
Sana'a University Journal of Medical Sciences	1993-3584
University of Aden Journal of Natural and Applied Sciences	1606-8947
Yemeni Journal for Medical Sciences [The]	N/A
YHMRJ-Yemeni Health and Medical Research Journal	N/A
YJMHR-Yemeni Journal of Medical and Health Research	N/A
YMJ-Yemen Medical Journal	N/A

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Appendix III

**List of EMR Journals Indexed in
IMEMR**

(by title)

S/N	Journal	ISSN
1	AAMJ-Al-Azhar Assiut Medical Journal	1687-1693
2	ABJS-Archives of Bone and Joint Surgery [The]	2345-4644
3	ACES-Actualites Cliniques et Scientifiques	1683-8068
4	Acta Medica Iranica	0044-6025
5	Advances in Cognitive Science	1561-4174
6	Afghan Medical Journal	N/A
7	AFJPH-Afghanistan Journal of Public Health	2308-2895
8	African Journal of Urology	1110-5704
9	Afro-Arab Liver Journal	1687-224X
10	Ain-Shams Journal of Forensic Medicine and Clinical Toxicology	1687-1030
11	Ain-Shams Medical Journal	0002-2144
12	AJAIC-Alexandria Journal of Anaesthesia and Intensive Care	N/A
13	AJM-Alexandria Journal of Medicine	2090-5068
14	AJMB-Avicenna Journal of Medical Biotechnology	2008-2835
15	AJNT-Arab Journal of Nephrology and Transplantation	1858-554X
16	AJU-Arab Journal of Urology	2090-598X
17	Al-Azhar Journal of Dental Science	1110-6751
18	Al-Azhar Medical Journal	1110-0400
19	Alexandria Dental Journal	1110-015X
20	Alexandria Journal of Food Science and Technology	1687-3920
21	Alexandria Journal of Hepatogastroenterology	2090-1879
22	Alexandria Journal of Pediatrics	1687-9945
23	Alexandria Journal of Pharmaceutical Sciences	1110-1792
24	Alexandria Journal of Veterinary Science [AJVS]	1110-2407
25	Alexandria Medical Journal [The]	0516-5849
26	Al-Kindy College Medical Journal	1810-9543
27	Almustansiriya Journal of Pharmaceutical Sciences	1815-0993
28	Al-Quds Medical Journal	N/A
29	Al-Shifa Journal of Ophthalmology	1990-3863
30	Anaesthesia, Pain and Intensive Care	1607-8322
31	Anatomical Sciences Journal [ASJ]	N/A
32	Anesthesiology and Pain Medicine	2228-7523
33	Annals Abbassi Shaheed Hospital and Karachi Medical and Dental College	1563-3241
34	Annals of Alquds Medicine	1815-2635
35	Annals of Jinnah Postgraduate Medical Centre - Karachi	N/A

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36	Annals of King Edward Medical College	1684-6680
37	Annals of Military and Health Sciences Research	2383-1960
38	Annals of Pediatric Surgery	1687-4137
39	Annals of Saudi Medicine	0256-4947
40	Annals of the College of Medicine-Mosul	0028-1446
41	Annals of Thoracic Medicine	1817-1737
42	APMC-Annals of Punjab Medical College	2077-9143
43	Applied Endocrinology in Egypt	1110-1776
44	Applied Food Biotechnology	2345-5357
45	Arab Dental Journal	N/A
46	Arab Family Health and Population	N/A
47	Arab Journal for Food and Nutrition	1608-8352
48	Arab Journal of Biotechnology	1110-6875
49	Arab Journal of Gastroenterology	1687-1979
50	Arab Journal of Laboratory Medicine [The]	1110-1822
51	Arab Journal of Pharmaceutical Sciences	1683-0369
52	Arab Journal of Psychiatry [The]	1016-8923
53	Arabic Journal of Forensic Medicine and Criminal Science	N/A
54	Arabic Medical Journal	N/A
55	Archive of Breast Cancer	2383-0425
56	Archives de l'Institut Pasteur de Tunis	0020-2509
57	Archives of Clinical Infectious Diseases	2641-2345
58	Archives of Iranian Medicine	1029-2977
59	Archives of Trauma Research	2251-953X
60	Armaghane-danesh	1728-6506
61	ARYA Atherosclerosis Journal	1735-3955
62	Asia Oceania Journal of Nuclear Medicine and Biology	2322-5718
63	Asian Journal of Sports Medicine	2008-000X
64	ASJOG-Ain-Shams Journal of Obstetrics and Gynecology	1697-2193
65	ASNJ-Alexandria Scientific Nursing Journal	1687-3858
66	Assiut Medical Journal	1110-0494
67	Assiut University Bulletin for Environmental Researches	1110-6107
68	Assiut Veterinary Medical Journal	N/A
69	Audiology	1735-1936
70	Avicenna Journal of Phytomedicine [AJP]	2228-7930

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71	Bahrain Medical Bulletin	1012-8298
72	Bahria Journal of Professional Psychology	1816-0840
73	Basic and Clinical Neuroscience	2008-126X
74	Basrah Journal of Surgery	1683-3589
75	BCCR-Basic and Clinical Cancer Research	2228-6527
76	BEAT-Bulletin of Emergency and Trauma	2322-2522
77	Benha Medical Journal	1110-208X
78	Bina Journal of Ophthalmology	1026-6399
79	Biomedica	1992-4852
80	Bulletin Epidemiologique	0851-8238
81	Bulletin of Alexandria Thoracic Association	1687-997X
82	Bulletin of Endemic Disease-Baghdad	0007-4845
83	Bulletin of Faculty of Pharmacy-Cairo University	1110-0931
84	Bulletin of Faculty of Physical Therapy-Cairo University	1110-6611
85	Bulletin of Nutrition and Food	N/A
86	Bulletin of Pharmaceutical Sciences-Assiut University	1110-0052
87	Bulletin of the Faculty of Science-University of Alexandria	0568-9619
88	Bulletin of the Kuwait Institute for Medical Specialization	N/A
89	Bulletin of the National Nutrition Institute of the Arab Republic of Egypt	N/A
90	Bulletin of the National Research Centre	1110-0591
91	Bulletin of the Ophthalmological Society of Egypt	0078-5342
92	Cahiers Medicaux de Tunisie	0300-5291
93	Cell Journal [Yakhteh]	2228-5806
94	Challenge-Quarterly [The]	0528-7944
95	Childhood and Development Quarterly	1110-8681
96	Clinical Diabetes	0891-8929
97	Community Medicine	0301-7265
98	Damascus University Journal for Health Sciences	2072-2265
99	DARU-Journal of Pharmaceutical Sciences	1560-8115
100	DENA-Quarterly Journal of Yasuj Faculty of Nursing and Midwifery	1735-8450
101	Dermatology and Cosmetic Quarterly	2008-7470
102	Diabetes Digest	1369-7501
103	Dirasat	1026-3764
104	DMJ-Derna Medical Journal	N/A
105	DMJ-Dohuk Medical Journal	2071-7326

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106	DRJ-Dental Research Journal	1735-3327
107	EBNESINA-Medical Journal of Military Medicine [The]	1735-9503
108	EDJ-Egyptian Dental Journal	0070-9484
109	Egyptian Heart Journal [The]	1110-2608
110	Egyptian Journal of Anatomy [The]	1110-2144
111	Egyptian Journal of Biomedical Engineering	1012-5558
112	Egyptian Journal of Biophysics and Biomedical Engineering	1110-8525
113	Egyptian Journal of Breastfeeding	N/A
114	Egyptian Journal of Bronchology [The]	1687-8426
115	Egyptian Journal of Cardiothoracic Anesthesia	1687-9090
116	Egyptian Journal of Cataract and Refractive Surgery [The]	N/A
117	Egyptian Journal of Chemistry	0449-2285
118	Egyptian Journal of Chest Diseases and Tuberculosis [The]	0422-7638
119	Egyptian Journal of Community Medicine [The]	1110-1865
120	Egyptian Journal of Dermatology and Andrology	1110-7650
121	Egyptian Journal of Diabetes [The]	N/A
122	Egyptian Journal of Food Science	1110-0192
123	Egyptian Journal of Genetics and Cytology	0046-161X
124	Egyptian Journal of Histology [The]	1110-0559
125	Egyptian Journal of Hospital Medicine [The]	1687-2002
126	Egyptian Journal of Immunology [The]	1110-4902
127	Egyptian Journal of Medical Human Genetics [The]	1110-8630
128	Egyptian Journal of Medical Laboratory Sciences	1110-5593
129	Egyptian Journal of Microbiology	0022-2704
130	Egyptian Journal of Neonatology [The]	1110-8991
131	Egyptian Journal of Neurology, Psychiatry and Neurosurgery [The]	1110-1083
132	Egyptian Journal of Nutrition	1687-1235
133	Egyptian Journal of Nutrition and Health	1687-7950
134	Egyptian Journal of Occupational Medicine	1110-1881
135	Egyptian Journal of Otolaryngology [The]	1012-5574
136	Egyptian Journal of Paediatrics [The]	1687-1677
137	Egyptian Journal of Pediatric Allergy and Immunology [The]	1687-1642
138	Egyptian Journal of Pharmaceutical Sciences	0301-5068
139	Egyptian Journal of Physiological Sciences	0301-8660
140	Egyptian Journal of Psychiatry [The]	1110-1105

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141	Egyptian Journal of Schistosomiasis and Infectious and Endemic Diseases	1110-7278
142	Egyptian Journal of Surgery [The]	1110-1121
143	Egyptian Journal of Urology	1110-5712
144	Egyptian Journal of Veterinary Science	1110-0222
145	Egyptian Liver Journal	2090-6218
146	Egyptian Medical Journal of the National Research Center	1687-1278
147	Egyptian Orthodontic Journal	1110-435x
148	Egyptian Orthopaedic Journal [The]	1110-1148
149	Egyptian Pharmaceutical Journal [National Research Center]	1687-4315
150	Egyptian Population and Family Planning Review [The]	1110-1156
151	Egyptian Rheumatologist [The]	1110-1164
152	Egyptian Rheumatology and Rehabilitation	1110-161X
153	Egyptian Science Magazine [The]	1687-3815
154	EJB-Egyptian Journal of Biochemistry and Molecular Biology [The]	1687-1502
155	EJENTAS-Egyptian Journal of ENT and Allied Sciences	2090-0740
156	EJMM-Egyptian Journal of Medical Microbiology [The]	1110-2179
157	EMHJ-Eastern Mediterranean Health Journal	1020-3397
158	EMJ-Emirates Medical Journal	0250-6882
159	Endovascular Journal	2008-1812
160	Esculapio	2309-3080
161	Feyz-Journal of Kashan University of Medical Sciences	1029-7855
162	Frontiers in Biomedical Technologies	2345-5829
163	FWU Journal of Social Sciences	1995-1272
164	Garyounis Medical Journal	0254-7198
165	Gastroenterology and Hepatology from Bed to Bench	2010-2258
166	Gazette of the Egyptian Paediatric Association [The]	1110-6638
167	Genetics in the 3rd Millennium	2423-7159
168	Gezira Journal of Health Sciences	1810-5386
169	GJMS-Gomal Journal of Medical Sciences	1819-7973
170	GJO-Gulf Journal of Oncology [The]	2078-2101
171	Govaresh	1560-7186
172	Gulf Journal of Dermatology and Venereology [The]	N/A
173	Gulf Medical University: Proceedings	2306-6865
174	HAKIM Research Journal	1561-252X
175	Hamdard Medicus	0250-7188

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176	HAYAT-Journal of Faculty of Nursing and Midwifery [The]	1735-2215
177	Health [The]	2218-3299
178	Health Information Management	1735-7853
179	Health Services Journal of the Eastern Mediterreanean Region	1014-9899
180	Heart Views	1995-705X
181	Hematology, Oncology and Stem Cell Therapy	1658-3876
182	Hepatitis Monthly	1735-143X
183	HJMS-Hadramout Journal of Medical Sciences	2224-1806
184	HMJ-Hamdan Medical Journal	2227-2437
185	Homa-ye-Salamat	2008-2002
186	Hormozgan Medical Journal	1735-2223
187	Hospital-Journal of Iranian Scientific Hospital Association	2008-1928
188	IAJD-International Arab Journal of Dentistry	2218-0885
189	IBJ-Iranian Biomedical Journal	1028-852X
190	IDEES-Revue de Perfectionnement Medical et Paramedical	N/A
191	IEJ-Iranian Endodontic Journal	1735-7497
192	IHJ-Iranian Heart Journal	1735-7306
193	IJBC-Iranian Journal of Blood and Cancer	2008-4595
194	IJB-Iranian Journal of Biotechnology	1728-3043
195	IJCBNM-International Journal of Community Based Nursing and Midwifery	2322-2476
196	IJCN-Iranian Journal of Child Neurology	1735-4668
197	IJDO-Iranian Journal of Diabetes and Obesity	2008-6792
198	IJEHSR-International Journal of Endorsing Health Science Research	2307-3748
199	IJEM-Iranian Journal of Endocrinology and Metabolism	1683-4844
200	IJFS-International Journal of Fertility and Sterility	2008-076X
201	IJHOSCR-International Journal of Hematology-Oncology and Stem Cell Research	2008-2207
202	IJHPM-International Journal of Health Policy and Management	N/A
203	IJHS-Iranian Journal of Health Sciences	2322-553X
204	IJI-Iranian Journal of Immunology	1735-1383
205	IJKD-Iranian Journal of Kidney Diseases	1735-8582
206	IJMCM-International Journal of Molecular and Cellular Medicine	2251-9637
207	IJME-Iranian Journal of Medical Education	1608-9359
208	IJM-Iranian Journal of Microbiology	2008-3289
209	IJMS-Iranian Journal of Medical Sciences	0253-0716

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210	IJN-Iranian Journal of Neonatology	2251-7510
211	IJOH-International Journal of Occupational Hygiene	2008-5109
212	IJO-Iranian Journal of Orthodontics	1735-5087
213	IJP-International Journal of Pediatrics	2345-5047
214	IJPM-International Journal of Preventive Medicine	2008-7802
215	IJPR-Iranian Journal of Pharmaceutical Research	1735-0328
216	IJRM-International Journal of Reproductive Biomedicine	2476-4108
217	IJVM-Iranian Journal of Veterinary Medicine	2251-8894
218	IMJ-Iraqi Medical Journal	0304-4564
219	Infectious Diseases Journal of Pakistan	1027-0299
220	International Cardiovascular Research Journal	2251-9130
221	International Journal of Diabetes and Metabolism	1606-7754
222	International Journal of Diabetes Mellitus	1877-5934
223	International Journal of Endocrinology and Metabolism	1726-913X
224	International Journal of Environmental Research	1735-6865
225	International Journal of Environmental Science and Technology	1735-1472
226	International Journal of Health Sciences	1658-3639
227	International Journal of High Risk Behaviors and Addiction	2251-8711
228	International Journal of Mycobacteriology	2212-5531
229	International Journal of Occupational and Environmental Medicine	2008-6520
230	International Journal of Organ Transplantation Medicine	2008-6490
231	International Journal of Pathology	1810-0155
232	International Journal of Radiation Research	2322-3243
233	International Journal of Women's Health and Reproduction Sciences	N/A
234	IOJ-Iraqi Orthodontic Journal	1816-0581
235	IPMJ-Iraqi Postgraduate Medical Journal	1608-8360
236	Iran Journal of Nursing	2008-5923
237	Iran Occupational Health	1735-5133
238	Iranian Journal of Allergy, Asthma and Immunology	1735-1502
239	Iranian Journal of Arthropod-Borne Diseases	1735-7179
240	Iranian Journal of Basic Medical Sciences	2008-3866
241	Iranian Journal of Cancer Prevention	2008-2398
242	Iranian Journal of Dermatology	0021-082X
243	Iranian Journal of Diabetes and Lipid Disorders	1726-7544
244	Iranian Journal of Environmental Health Science and Engineering	1735-1979

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245	Iranian Journal of Epidemiology	1735-7489
246	Iranian Journal of Health and Environment	2008-2029
247	Iranian Journal of Medical Microbiology	1735-8612
248	Iranian Journal of Medical Physics	1735-160X
249	Iranian Journal of Nuclear Medicine	1681-2824
250	Iranian Journal of Nursing and Midwifery Research [IJNMR]	1735-9066
251	Iranian Journal of Nursing Research	1735-7012
252	Iranian Journal of Nutrition Sciences and Food Technology	1735-7756
253	Iranian Journal of Obstetric, Gynecology and Infertility [The]	1680-2993
254	Iranian Journal of Ophthalmology	1735-4153
255	Iranian Journal of Otorhinolaryngology	1560-1293
256	Iranian Journal of Parasitology	1735-7020
257	Iranian Journal of Pediatrics	2008-2142
258	Iranian Journal of Psychiatric Nursing	2345-2501
259	Iranian Journal of Psychiatry	1735-4587
260	Iranian Journal of Psychiatry and Behavioral Sciences	1735-8639
261	Iranian Journal of Psychiatry and Clinical Psychology [IJPCP]	1735-4315
262	Iranian Journal of Public Health	0304-4556
263	Iranian Journal of Radiology	1735-1065
264	Iranian Journal of Veterinary Research	1728-1997
265	Iranian Rehabilitation Journal	1735-3602
266	Iraqi Army Medical Journal	N/A
267	Iraqi Journal of Agriculture	1818-6645
268	Iraqi Journal of Biotechnology	N/A
269	Iraqi Journal of Community Medicine	1684-5382
270	Iraqi Journal of Medical Sciences	1681-6579
271	Iraqi Journal of Microbiology	N/A
272	Iraqi Journal of Pharmaceutical Sciences	1683-3597
273	Iraqi Journal of Tropical Disease Researches	1814-0823
274	Iraqi New Medical Journal	2409-5931
275	IRCMJ-Iranian Red Crescent Medical Journal	1561-4395
276	ISESCO Journal of Science and Technology	2028-8077
277	Isra Medical Journal	2073-8285
278	JABHS-Journal of the Arab Board of Health Specializations	1561-0217
279	JAMC-Journal of Ayub Medical College-Abbottabad-Pakistan	1025-9589

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280	JBMS-Journal of the Bahrain Medical Society	1015-6321
281	JBUMS-Journal of Babol University of Medical Sciences	1561-4107
282	JCPSP-Journal of the College of Physicians and Surgeons Pakistan	1022-386X
283	JCR-Journal of Craniomaxillofacial Research	5489-2345
284	JCVTR-Journal of Cardiovascular and Thoracic Research	2008-5117
285	JDB-Journal of Dental Biomaterials	2383-3971
286	JDT-Journal of Dentistry Tehran University of Medical Sciences	1735-2150
287	JDUHS-Journal of the Dow University of Health Sciences	1995-2198
288	JEMTAC-Journal of Emergency Medicine, Trauma and Acute Care	1999-7086
289	JESN-Journal of Egyptian Society of Nephrology [The]	N/A
290	JFH-Journal of Fasting and Health	N/A
291	JIIMC-Journal of Islamic International Medical College [The]	1815-4018
292	JIMDC-Journal of Islamabad Medical and Dental College	2227-3875
293	JISHIM-Journal of the International Society for the History of Islamic Medicine	1303-667X
294	JKCD-Journal of Khyber College of Dentistry	2220-2633
295	JLDA-Journal of the Lebanese Dental Association	1810-9632
296	JLUMHS-Journal of the Liaquat University of Medical Health Sciences	1729-0341
297	JMB-Journal of Medical Bacteriology	2251-8649
298	JMJ-Jamahiriya Medical Journal	2079-1216
299	JMJ-Juba Medical Journal	N/A
300	JMRH-Journal of Midwifery and Reproductive Health	N/A
301	JMR-Journal of Medical Research	1728-1962
302	JNE-Journal of Nursing Education	3812-2322
303	JNMS-Journal of Nursing and Midwifery Sciences	2345-5756
304	JNP-Journal of Nephropathology	2251-8363
305	JOPDAK-Journal of the Pakistan Dental Association Karachi	1680-2292
306	Jordan Journal of Pharmaceutical Sciences	1995-7157
307	Jordan Medical Journal	0446-9283
308	Journal du Practicien	1113-5667
309	Journal of Advanced Research	2090-1232
310	Journal of Anesthesiology and Pain	2228-6659
311	Journal of Arak University of Medical Sciences-Rahavard Danesh	1735-5338
312	Journal of Baghdad College of Dentistry	1680-0057
313	Journal of Basic and Applied Sciences	1814-8085
314	Journal of Basic Medical Sciences	N/A

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315	Journal of Cardio-Thoracic Medicine	2345-2447
316	Journal of Childhood Studies	2090-0619
317	Journal of Clinical Excellence	2322-391X
318	Journal of Clinical Laboratory [The]	1814-411X
319	Journal of Community Medicine	N/A
320	Journal of Dental Materials and Techniques	2322-4150
321	Journal of Dental Medicine-Tehran University of Medical Sciences	1024-641X
322	Journal of Dental Research, Dental Clinics, Dental Prospects	2008-210X
323	Journal of Dental School-Shahid Beheshti University of Medical Sciences	1735-7683
324	Journal of Dentistry-Shiraz University of Medical Sciences	1728-3426
325	Journal of Dohuk University	1812-7568
326	Journal of Drug Research of Egypt	0085-2406
327	Journal of Environmental Studies	1025-8620
328	Journal of Epidemiology and Global Health	2210-6006
329	Journal of Family and Community Medicine	2230-8229
330	Journal of Family and Reproductive Health	1735-8949
331	Journal of Fundamentals of Mental Health [The]	1028-6918
332	Journal of Gorgan University of Medical Sciences	1562-4765
333	Journal of Guilan University of Medical Sciences	2008-4048
334	Journal of Health Administration	2008-1200
335	Journal of Health and Safety at Work	2251-807X
336	Journal of Health Promotion Management [JHPM]	2251-8614
337	Journal of Health Scope	2251-8959
338	Journal of Hepatology, Gastroenterology and Infectious Diseases	1110-0796
339	Journal of High Institute of Public Health [The]	2357-0601
340	Journal of Hygiene and Health	1735-2363
341	Journal of Infection and Public Health	1876-0341
342	Journal of Injury and Violence Research	2008-2053
343	Journal of Isfahan Dental School	1735-255X
344	Journal of Isfahan Medical School	1027-7595
345	Journal of Islamic Dental Association of Iran [The]-JIDA	1024-6428
346	Journal of Jahrom University of Medical Sciences	2008-7993
347	Journal of Karbala University	1813-0410
348	Journal of Kerman University of Medical Sciences	1023-9510
349	Journal of Kermanshah University of Medical Sciences [KUMS]	2251-9068

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350	Journal of King Abdulaziz University-Medical Sciences	1319-1004
351	Journal of Lasers in Medical Sciences	2008-9783
352	Journal of Legal Medicine and Forensic Sciences [The]	1110-6468
353	Journal of Mashhad Dental School	1560-9286
354	Journal of Mazandaran University of Medical Sciences	1735-9260
355	Journal of Medical Council of Islamic Republic of Iran	1562-1073
356	Journal of Medical Education	1735-3998
357	Journal of Medical Sciences	1682-4474
358	Journal of Medical Sciences	1997-3438
359	Journal of Medicinal Plants	1684-0240
360	Journal of Minimally Invasive Surgical Sciences	2251-7022
361	Journal of Modern Rehabilitation	2008-2576
362	Journal of Nephrology Urology and Transplantation	1606-9331
363	Journal of Nursing and Midwifery Quarterly-Shaheed Beheshti University of Medical Sciences and Health Services	1605-8941
364	Journal of Ophthalmic and Vision Research	2008-2010
365	Journal of Patient Safety and Quality Improvement	2345-4482
366	Journal of Periodontology and Implant Dentistry	2008-7748
367	Journal of Qazvin University of Medical Sciences [The]	1561-3666
368	Journal of Rafsanjan University of Medical Sciences	1735-3165
369	Journal of Rehabilitation	1607-2960
370	Journal of Reproduction and Infertility	2228-5482
371	Journal of Research in Behavioural Sciences	1735-2029
372	Journal of Research in Dental Sciences	2008-4676
373	Journal of Research in Health Sciences [JRHS]	2228-7795
374	Journal of Research in Medical Sciences	1735-5311
375	Journal of Sabzevar University of Medical Sciences	1606-7487
376	Journal of Safety Promotion and Injury Prevention	2345-2455
377	Journal of School of Public Health and Institute of Public Health Research	1735-7586
378	Journal of Screening and Geographical Medicine	1735-7594
379	Journal of Shaheed Sadoughi University of Medical Sciences and Health Services	1562-272X
380	Journal of Shahrekord University of Medical Sciences	1735-1448
381	Journal of Surgery [The]	1681-4517
382	Journal of Taibah University Medical Sciences	1658-3612
383	Journal of Tehran University Heart Center [The]	1735-8620
384	Journal of the Arab Board of Medical Specializations	1561-0217

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385	Journal of the Arab Dentist	N/A
386	Journal of the Arab Neonatology Forum	1812-1756
387	Journal of the Arab Society for Medical Research	1687-4293
388	Journal of the Egyptian Medical Association [The]	0013-2411
389	Journal of the Egyptian National Cancer Institute	1110-0362
390	Journal of the Egyptian Public Health Association [The]	0013-2446
391	Journal of the Egyptian Society of Endocrinology, Metabolism and Diabetes [The]	1110-1245
392	Journal of the Egyptian Society of Obstetrics and Gynecology [The]	0258-3216
393	Journal of the Egyptian Society of Parasitology	1110-0583
394	Journal of the Egyptian Society of Pharmacology and Experimental Therapeutics [The]	N/A
395	Journal of the Egyptian Society of Toxicology	1110-127X
396	Journal of the Faculty of Medicine-Baghdad	0041-9419
397	Journal of the Medical Research Institute-Alexandria University	1110-0133
398	Journal of the Royal Medical Services	2078-8703
399	Journal of the Saudi Heart Association	1016-7315
400	Journal of Tropical Nephro-Urology	N/A
401	Journal of Veterinary Research	2008-2525
402	Journal of Zahedan University of Medical Sciences and Health Services	1735-076X
403	Journal of Zanjan University of Medical Sciences and Health Services	1606-9366
404	JPAD-Journal of Pakistan Association of Dermatologists	1560-9014
405	JPC-Journal of Pediatric Club [The]	N/A
406	JPC-Journal of Pharmaceutical Care	2322-4630
407	JPDA-Journal of the Pakistan Dental Association	1680-2292
408	JPIMS-Journal of Pakistan Institute of Medical Sciences	1683-6928
409	JPMA-Journal of Pakistan Medical Association	0030-9982
410	JPMI-Journal of Postgraduate Medical Institute	1013-5472
411	JPN-Journal of Pediatric Nephrology	N/A
412	JPPS-Journal of Pakistan Psychiatric Society	1726-8710
413	JRH-Journal of Research and Health	2251-6395
414	JRMS-Journal of Research in Medical Sciences	1735-1995
415	JRRS-Journal of Research in Rehabilitation Sciences	1735-7519
416	JSOGP-Journal of the Society of Obstetricians and Gynaecologists of Pakistan	N/A
417	JSP-Journal of Surgery Pakistan International	1817-0242
418	Jundishapur Journal of Microbiology [JJM]	2008-3645
419	Jundishapur Journal of Natural Pharmaceutical Products	1735-7780

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420	Jundishapur Scientific Medical Journal	2252-052x
421	Kasr El Aini Journal of Surgery	0022-9237
422	Kasr El-Aini Medical Journal	N/A
423	Khartoum Pharmacy Journal	1816-5168
424	Kidney Forum	1369-3050
425	KMJ-Kuwait Medical Journal	0023-5776
426	KMUJ-Khyber Medical University Journal	2072-7763
427	KOOMESH-Journal of Semnan University of Medical Sciences	1608-7046
428	Kufa Medical Journal	N/A
429	Lahore Journal of Public Health	N/A
430	Lebanese Science Journal	1561-3410
431	Libyan Journal of Infectious Diseases [The]	N/A
432	LJM-Libyan Journal of Medicine	1993-2820
433	LMJ-Lebanese Medical Journal	0023-9852
434	Maghreb Medical	0330-258X
435	Mansoura Journal of Pharmaceutical Sciences	1110-1318
436	Mansoura Medical Bulletin	1012-5590
437	Mansoura Medical Journal	1110-211X
438	Maroc Medical	0253-4053
439	MDV-Molecular Diagnosis and Vaccine	1687-2010
440	MEAJO-Middle East African Journal of Ophthalmology	0974-9233
441	Medical Arabization	N/A
442	Medical Channel	1681-5491
443	Medical Forum Monthly	1029-385X
444	Medical Journal of Ahmed Maher Teaching Hospital [The]	N/A
445	Medical Journal of Basrah University [The]	0253-0759
446	Medical Journal of Cairo University [The]	0045-3803
447	Medical Journal of Islamic World Academy of Sciences	1016-3360
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541	Revue Marocaine de Chirurgie Orthopedique et Traumatologique	N/A
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599	Yemeni Journal for Medical Sciences [The]	N/A
600	YHMRJ-Yemeni Health and Medical Research Journal	N/A
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