

# Index Medicus for the WHO Eastern Mediterranean Region

with Abstracts



## IMEMR Current Contents

December 2017

Vol. 16 No. 4



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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) Database<sup>1</sup>.

## 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.

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<sup>1</sup> 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>

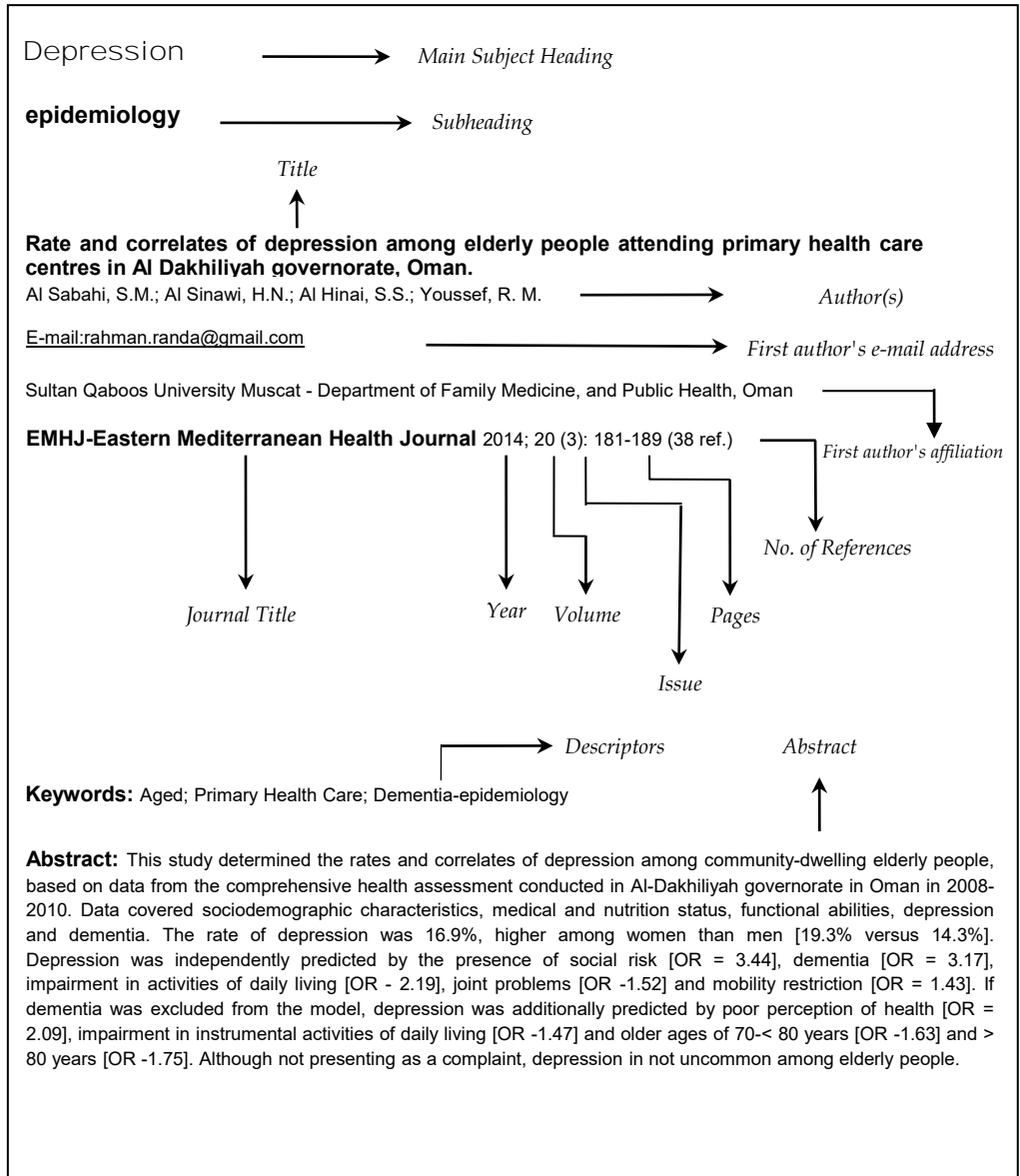


Figure (1): Sample of IMEMR citation

# Subject Index



## Abdominal Injuries

### **The value of focused assessment sonography for trauma [FAST] in the management of patients with blunt trauma to the abdomen.**

Naiem, Nabeel Isam; Hammoodi, Yahya Kareem; Mahmood, Mohammed; Sulaiman, Tharwat Idrees

Baghdad Teaching Hospital

**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 564-569

**Keywords:** Ultrasonography; Wounds and Injuries; Wounds, Nonpenetrating; Laparotomy; Prospective Studies; Cohort Studies

**Abstract:** Background: During the last decade focused assessment with sonography for trauma increasingly has become the initial diagnostic modality of choice in trauma patients. Objective: This study was carried to evaluate the sensitivity, specificity and accuracy of FAST when done by residents in the emergency surgical department, and its effect in determining the type of management. Patients and methods: 210 patients with blunt abdominal trauma were assessed with FAST within 30 minutes from admission to the emergency room. FAST results were considered positive if it detected intra peritoneal fluid, negative if it did not detect intra peritoneal fluid, and indeterminate [equivocal] if the results were not conclusive. In cases with negative Fast results and no other injuries were detected the patients were kept in the emergency department for 24 hours for observation and discharged later on. Those with indeterminate initial FAST or who deteriorated clinically after negative initial FAST were subjected to repeated FAST and I or emergency abdominal and pelvic computed tomography [C.T scan] or explorative laparotomy according to their clinical condition. Patients with positive ultrasonography results underwent emergency abdominal or pelvic C.T, or surgery according to their clinical picture. Results: From the 210 patients included in the study we found that 177 patients [84.2%] had negative FAST results, 22 patients [10.4%] had positive FAST results, 2 patients [0.95%] had false positive results, 8 patients [3.8%] had false negative FAST results and 11 patients [5.2%] had equivocal FAST results. After exclusion of equivocal cases, FAST had sensitivity of [71.4%] specificity of [98.8%], accuracy of [89.1%], positive predictive value of [90.9%] and negative predictive value of [95.4%]. Conclusion: FAST is useful adjunct to the initial evaluation of blunt trauma patients with reliable accuracy and high negative predictive value. FAST had a great effect in determining the type of treatment especially in case of mass causality. And using FAST by general surgeons helps in the determination of the type of treatment for patients with blunt trauma.

## Acne Vulgaris

### **therapy**

### **Percutaneous collagen induction using dermaroller versus 80% trichloroacetic acid in the treatment of atrophic post acne scars: a comparative study.**

Abdel Magiud, Ensaf M.; Taha, Emad A.; Sayed, Sohair K.; Makhoul, Mohamed; Bakr, Radwa

Assiut University - Faculty of Medicine - Department of Disease Dermatologists

**Assiut Medical Journal** 2015; 39 (3): 111-122

**Keywords:** Collagen; Administration, Cutaneous; Trichloroacetic Acid; Prospective Studies

**Abstract:** Background: Percutaneous collagen induction [PCI] promotes removal of damaged collagen and induces more collagen immediately under the epidermis. The chemical reconstruction of skin scars [CROSS] method is a focal application of full-concentration trichloroacetic acid [TCA] to atrophic acne scars. The CROSS method has the advantage of reconstructing acne scars by increasing dermal thickening and collagen production. Objective: To compare the safety and efficacy of PCI and the 80% TCA CROSS method for the treatment of atrophic post acne scars. Patients and Methods: Thirty four participants were randomly divided into two groups; group 1[19 patients] underwent four sessions [4 weeks apart] PCI, and group 2 [15 patients] underwent five sessions [2 weeks apart] of 80% TCA CROSS. The two groups were compared regarding photo evaluation, patient satisfaction and adverse effects. Results: All patients improved in both groups. However, the mean percentage of improvement was statistically significantly higher in the first group treated by the dermaroller [59.89%] than in the second group treated by TCA CROSS 80% [42.73%] [p = 0.025] but there was no statistical significant difference regarding the patient satisfaction. Conclusions: PCI and 80% TCA CROSS were effective in the treatment of atrophic acne scars with superior results were in favor of dermaroller.

## Aconitum

### **Dynamic variation patterns of aconitum alkaloids in daughter root of *Aconitum carmichaelii* [Fuzi] in the decoction process based on the content changes of nine aconitum alkaloids by HPLC- MS- MS.**

Luo, Heng; Huang, Zhifang; Tang, Xiaolong; Yib, Jinhai; Chen, Shuiying; Yanga, Andong; Yang, Jun  
Sichuan Academy of Chinese Medicine Sciences

**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 263-273

**Keywords:** Alkaloids; Plant Extracts; Chromatography, High Pressure Liquid; Tandem Mass Spectrometry; Phytotherapy; Drugs, Chinese Herbal

**Abstract:** The chemical components in the decoctions of Chinese herbal medicines are not always the same as those in the crude herbs because of the insolubility or instability of some compounds. In this work, a high-performance liquid chromatography [HPLC] coupled with electrospray ionization [ESI] tandem mass spectrometry method was developed to explore dynamic variation patterns of aconitum alkaloids in Fuzi during the process of decocting aconite root. The fragmentation patterns of aconitum alkaloids using ESI and collision-induced dissociation [CID] techniques were reported. This assay method was validated with respect to linearity [ $r^2 > 0.9950$ ], precision, repeatability, and accuracy [recovery rate between 94.6 and 107.9%]. The result showed that the amounts of aconitum alkaloids in the decoction at different boiling time varied significantly. In the decoction process, the diester- type alkaloids in crude aconite roots have transformed into Benzoylaconines or aconines.

## Agriculture

### **Environmental assessment of the agricultural drainage pools in El-Dakhla depression, Western desert of Egypt "a study in physical geography" using remote sensing techniques and geographic information systems.**

Abu Zeid, Hassan Abu Zeid Mohamed

**Assiut University Bulletin for Environmental Researches** 2015; 18 (2): 1-30

**Keywords:** Drainage; Needs Assessment; Environment; Geography

**Abstract:** Environmental Studies is a multidisciplinary academic field which systematically studies human interaction with the environment in the interests of solving complex problems. Environmental Studies brings together the principles of Sciences, Commerce/Economics and Social Sciences so as to solve contemporary environmental problems. El-Dakhla depression has available with natural ingredients necessary for agriculture, including the soil reclamation, which has an area of about 1.2 million acres, as well as groundwater which has a daily discharge of about 945 million m<sup>3</sup>. The main aim of current research was to study a agro-ecosystem components of the drainage pools and the related exchange networks, through the environmental assessment. To achieve this aim; the current study has depended on remote sensing GIS techniques, in addition to topographic maps analysis during different time periods and field studies. The study concluded that agricultural drainage main pools represented in two ranges basic principles: the first in the middle range of the depression, and the second in the western. The study recommends the need to develop agricultural drainage in the depression under environmental control, and through the work of periodic reports by taking into account the economic advantage of the drainage pools, as well as protecting nearby deterioration of agricultural soil due to leaching processes and salinization.

## Aloe

### **Study of sedative-hypnotic effects of *Aloe vera* L. aqueous extract through behavioral evaluations and EEG recording in rats.**

Abdollahnejad, Fatemeh; Mosaddegh, Mahmoud; Nasoohi, Sanaz; Mirnajafi Zadehc, Javad; Kamalinejadd, Mohammad; Faizi, Mehrdad

Shahid Beheshti University of Medical Sciences - School of Traditional Medicine

**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 293-300

**Keywords:** Hypnotics and Sedatives; Electroencephalography; Behavior; Sleep Initiation and Maintenance Disorders; Rats, Wistar; Plant Extracts; Phytotherapy

**Abstract:** In the present work sedative and hypnotic effects of aqueous extract of *Aloe vera* in rats have been investigated. In order to evaluate the overall hypnotic effects of the *Aloe vera* extract, open field and loss of righting reflex tests were primarily used. The sedative and hypnotic effects of the extract were then confirmed by detection of remarkable raise in the total sleeping time through analysis of electroencephalographic [EEG] recordings of animals. Analysis of the EEG recordings showed that there is concomitant change in Rapid Eye Movement [REM] and None Rapid Eye Movement [NREM] sleep in parallel with the prolonged total sleeping time. Results of the current research show that the extract has sedative-hypnotic effects on both functional and electrical activities of the brain.

## Ampulla of Vater

### Management of patients with ampullary and periampullary tumors in gastro-entriology and hepatology teaching hospital.

Mhawes, Ali Abed; Al Hadad, Laith R.; Abbood, Ali Hashim

Hepatology Teaching Hospital - Department of Surgery Gastro Intestinal

**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 454-461

**Keywords:** Common Bile Duct Neoplasms; Prospective Studies; Carcinoma; Tertiary Care Centers; Disease Management

**Abstract:** Background: Ampullary and periampullary tumors are composed of a group of malignant and benign neoplasms arising in the region of the ampulla of Vater and are a major problem to the patients and surgeons and their management remains a big challenge. Objective: Study the age, sex distribution, presentation and management of patients with ampullary and periampullary tumors in Iraq and compare it with other world reports. Patients and Methods: prospective study of 50 patients with ampullary and periampullary tumors carried out in GIT hospital [tertiary center] from January 2013 to March 2015, risk factors, age, sex, clinical presentation, images study, diagnosis and modality of treatments whether curative or palliative are studied. Results: 29 [58%] were males and 21[42%] were females, about the age distribution the mean age was 45 ,about the residency they were mainly from Baghdad in [40%] the presenting symptom was obstructive jaundice in 43 [86%] ,duration of illness [range from 1-2 months] with the mean period 45 days, abdominal ultrasound study reveal distended Gallbladders in 76%, dilated CBD in 82%, dilated pancreatic duct in 56%, Hepatomegaly in 42%, dilated intrahepatic biliary tree in 64%, and liver secondary in 10%, resection surgery was done in 50%, palliative surgery in 12% and endoscopic palliation in 38%. Conclusion: Ampullary and periampullary tumors are relatively common. The mean age is 45 years, lower than the western studies. Sex: male are affected 1.4 times more than female with male: female ratio = 1.38 Abdominal ultrasound is very informative but EUS, CT scan and MRI, MRCP is the cornerstone for the diagnosis, Normal looking papilla does not rule out occult ampullary tumor.

## Anastomosis, Surgical

### methods

#### Different types of anastomotic methods: a review of literature.

Mooloughi, Shadi; Joudi, Marjan; Dalili, Alimohamad; Dalili, Amin

Mashhad University of Medical Sciences - School of Medicine - Department of Obstetric and Gynecology.

**Reviews in Clinical Medicine [RCM]** 2015; 2 (4): 178-181

**Keywords:** Gastrointestinal Tract; Sutures

**Abstract:** Constructing successful anastomosis is an important concept in gastrointestinal tract surgeries, which can be affected by various factors such as preoperative bowel condition, intra- and postoperative complications, bleeding and the device characteristics. Suturing, stapling and compression anastomosis are different techniques. Despite the invention of compression anastomosis, which goes back almost two centuries, this method has not obtained the popularity of the suturing and stapling anastomosis and further studies are required. Designing methods and devices with no drawbacks might reduce the complications associated with anastomosis as the alternative to suturing and stapling anastomoses. Several materials can be used as reinforcement materials, which can improve the consequences of the stapled anastomosis. In addition to reinforcement materials, other forms of supports have been proposed, which might be capable of reducing the postoperative complications of anastomosis. In this study, we briefly review various types of anastomotic techniques and associated complications in different types of gastrointestinal surgeries.

## Annona

### Identification of some Annona Muricata L.[Soursop] components and their antioxidant effects in rats.

Abbas, Sarah Isam; Mohammed, Mustafa Taha; Abdal Mandi, Rehab

Al-Mustansiriyah University - College of Science - Department of Chemistry

**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 576-580

**Keywords:** Antioxidants; Free Radical Scavengers; Oxidative Stress; Lipid Peroxidation; Plant Extracts; Phytotherapy; Plants, Medicinal

**Abstract:** Background: Oxidative stress defines that, the level of Reactive Oxygen Species [ROS] exists in excess of antioxidant defenses. This imbalance in the redox milieu results in a switch from ROS-stimulated ambient signaling processes to ROS-mediated pathophysiological consequences. Oxidative stress has been implicated in the installation and progression of several degenerative diseases via DNA mutation, protein oxidation and lipid peroxidation. Therefore, possible use of soursop fruit extract to protect brain against the Lipid peroxidation. Objective: The present study was undertaken to evaluate the potential of Soursop [Annona Muricata L.] against the DPPH Free Radical Scavenging System and Lipid peroxidation. Methods: Phytochemical screening was carried out with fruit extract of A. muricata for the detection of various phytochemicals. The extract was tested for the presence of glycosides, proteins, saponins, tannins, phenolic compounds, alkaloids, flavonoids, steroids and vitamin C using the standard procedures and then DPPH radical was estimated according to the method of Blois and Lipid peroxidation was estimated according to the method of Rajakumar. Results: The study showed that the Soursop [Annona Muricata L.] in the fruit extract contain glycosides proteins, saponins ,tannins ,phenolic compounds, flavonoids, alkaloids, steroids and vitamin C. Fruit extract were found effective in scavenging DPPH [78.6%] in concentration [250 microl/ml], as well as inhibiting the lipid peroxidation [16.2%]. Conclusion: The results suggest that Soursop [Annona Muricata L.] treatment protects the rat brain against lipid peroxidation and DPPH free radical scavenging.

## Anticonvulsants

### pharmacology

#### **Short term effects of antiepileptic drugs on the heart using electrocardiograph as an assessment tool of investigation: a pilot case finding study.**

Al Mahdawi, Sura A.; Al Nimer, Marwan S.M.; Bduallah, Namir M.T.

Ministry of Health - Al Yarmouk Teaching Hospital

**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 492-498

**Keywords:** Electrocardiography; Heart; Pilot Projects; Epilepsy-drug therapy

**Abstract:** Background: Antiepileptic drugs can induce changes in the electrocardiograph [ECG] records including prolongation of QT interval but there is no evidence to link this effect with the sudden death that reported in epilepsy. The new generations of antiepileptic drugs showed variable effect on the heart. Lamotrigine did not prolonged the QT interval in healthy subjects while levetiracetam prolonged the QT interval in patients cardiac channelopathy presented with congenital long QT syndrome. Objective: This study aimed to investigate effects of antiepileptic drugs that prescribed in a therapeutic regimen to new cases of epilepsy as a part of management on the ECG records at the end of the 1<sup>st</sup> three months of treatment. Patients and Methods: A total number of 25 patients, presented for the first time with epilepsy, were recruited from Al-Yarmouk Teaching hospital. Each patient was assessed clinically by consultant neurology prior to enrollment in the study. An electrocardiogram [ECG] was obtained at the time of entry into the study prior to the admission of the study and after three months of treatment with antiepileptic drugs. In addition to the measurements of heart rate and different EGG intervals, a QT-nomogram and cardiac restitution were used in analysis. Results: At the time of entry, three patients had a significant short corrected QT interval [QTcB]; four patients had a borderline QTcB interval; and one patient had prolonged QTcB interval. QT-nomogram revealed that many patients have abnormal interval and antiepileptic drugs significantly reduced the relaxation phase of cardiac cycle and prolonged the ventricular repolarization. Conclusion: Antiepileptic drugs carried a harmful effect on the heart and their assessment should be not restricted in the measurement of QT interval before and after treatment or to study their effects on the healthy subject as epilepsy is commonly associated with mutation of sodium and/or potassium channels. Case finding of significant prolonged QT interval in respect to gender and age, assessment of QT nomogram and cardiac restitution are useful tools to identify the patients who are at risk of arrhythmias.

## Antitubercular Agents

### adverse effects

#### **Antituberculosis drugs and hepatotoxicity among hospitalized patients in Jos, Nigeria.**

Isa, Samson E.; Ebonyi, Augustine O.; Shehu, Nathan Y.; Idoko, Patrick; Anejo Okopi, Joseph A.; Simji, Gomerep; Odesanya, Rachael U.; Abah, Isaac O.; Jimoh, Hafsat O.

[E-mail:eijiisa@yahoo.com](mailto:eijiisa@yahoo.com)

University of Jos - Jos University Teaching Hospital - Department of Medicine

**International Journal of Mycobacteriology** 2016; 5 (1): 21-26

**Keywords:** Hospitalization; Drug-Induced Liver Injury; Tuberculosis-therapy; Incidence; Retrospective Studies; Cohort Studies; Liver-drug effects

**Abstract:** Background: Tuberculosis [TB] could be fatal if left untreated, however, adverse effects of anti-TB medications [anti-TB5] themselves may limit treatment. We determined the incidence and clinical characteristics of hepatotoxicity in hospitalized patients receiving first-line anti-TB treatment. Methods: A retrospective cohort study of patients aged  $\geq 18$  years seen at the medical wards of the Jos University Teaching Hospital from January 2013 to June 2013 was carried out. Data were retrieved for 110 patients who were prescribed anti-TBs. Their demographic and clinical characteristics were described, and the incidence of symptomatic hepatotoxicity determined. The incidence of hepatotoxicity by strict American Thoracic Society criteria [symptomatic hepatotoxicity plus alanine transaminase in IU/L levels  $>3 \times$  upper limit of normal] was also determined. Results: Twenty patients developed symptomatic hepatotoxicity, giving an incidence of 18.2%. Furthermore, 18 [16.4%] patients had hepatotoxicity according to the American Thoracic Society criteria. Those with symptomatic hepatotoxicity unexpectedly had lower baseline alanine transaminase interquartile range [IQR] [35 [16-63] vs. 67 [4-226];  $p = .04$ ] and bilirubin [micromole/L]. Total IQR [15.3 [10.2-74.8] vs. 20.4 [20.4-20.4];  $p = .01$ ] and conjugated IQR [7.6 [5.1-34.8] vs. 10.2 [10.2-10.2];  $p = .004$ ]. However, there were no significant differences in age, sex, body mass index, and duration of anti-TB treatment, human immunodeficiency virus infection status, antiretroviral therapy status, alcohol consumption, and the presence of hepatitis B surface antigen or hepatitis C virus antibody. Conclusion: Hepatotoxicity due to first-line anti-TB5, whether based on clinical features alone or backed by liver chemistry, is common among hospitalized patients in our environment. Studies to determine the predictors of hepatotoxicity to guide clinical interventions aimed at the prevention or timely identification of cases are needed.

### **Incidence of antituberculosis-drug-induced hepatotoxicity and associated risk factors among tuberculosis patients in Dawro Zone, South Ethiopia: a cohort study.**

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Tercha District Hospital

**International Journal of Mycobacteriology** 2016; 5 (1): 14-20

**Keywords:** Tuberculosis-drug therapy; Incidence; Drug-Induced Liver Injury; Risk Factors; Prospective Studies; Cohort Studies; Surveys and Questionnaires; Liver Function Tests; Liver-drug effects

**Abstract:** Background: Antituberculosis drugs cause hepatotoxicity in some individuals leading to acute liver failure, which results in death. Such phenomena limit the clinical use of drugs, contributing to treatment failure that possibly causes drug resistance. Furthermore, associated risk factors for the development of antituberculosis-drug-induced hepatotoxicity [anti-TB-DIH] are found to be controversial among different study findings. Methods: A prospective cohort study was conducted from May 2014 to October 2014 in Dawro Zone, Tercha District Hospital Laboratory, South Ethiopia. One hundred and twenty-four new tuberculosis-positive individuals available from Tercha Hospital and five health centers during data collection were consecutively included. The sociodemographic data and anthropometric measurement were obtained. Then, 5 mL of venous blood was drawn from each individual, and the alanine transaminase, aspartate transaminase, and total bilirubin were measured photometrically at baseline, and then continuously monitored by measuring these liver enzymes every 2 weeks for 2 months. Data were analyzed with SPSS version 20 for Windows [SPSS Inc., Chicago, IL, USA]. Results: The incidence of anti-TB-DIH was found to be 8% [10 patients out of 124]. Raised serum transaminase and bilirubin level, as well as signs and symptoms of hepatotoxicity [nausea, anorexia, vomiting, malaise, and jaundice], were observed in the cases. The onset of hepatotoxicity ranged from 13 days to 58 days [median, 26 days] after treatment was initiated. Of the various risk factors analyzed, only high alcohol intake was associated with the incidence of anti-TB-DIH [odds ratio = 9.3, 95% confidence interval 1.8-47,  $p < .007$ ]. Age, gender, extent of tuberculosis disease, and malnutrition were not significantly associated with anti-TB-DIH. Conclusion: The incidence of anti-TB-DIH in Dawro Zone was high. The drug responsible for the hepatotoxicity was not known. However, chronic high alcohol intake was associated with the development of anti-TB-DIH.

### Anus, Imperforate

### **Functional outcome of anorectal malformations and associated anomalies in era of Krickenbeck classification.**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 204-207

**Keywords:** Anal Canal-abnormalities; Rectum-abnormalities; Classification; Outcome and Process Assessment (Health Care); Retrospective Studies



**Abstract:** Objective: To describe the management and functional outcome of anorectal malformations and associated anomalies according to Krickenbeck classification. Study Design: Case series. Place and Duration of Study: The Aga Khan University Hospital, Karachi, from January 2002 to December 2012. Methodology: Anorectal anomalies were classified according to Krickenbeck classification. Data was collected and proforma used regarding the primary disease associated anomalies, its management and functional outcome, according to Krickenbeck classification. Cases included were: all those children with imperforate anus managed during the study period. Qualitative variables like gender and functional outcome were reported as frequencies and percentages. Quantitative variables like age were reported as medians with interquartile ranges. Results: There were 84 children in study group. Most common associated anomaly was cardiac [38%], followed by urological anomaly [33%]. All children were treated by Posterior Sagittal Anorectoplasty [PSARP]. Fistula was present in 64 out of 84 [76%] cases. The most common fistula was rectourethral [33%], followed by recto vestibular [31%]. According to Krickenbeck classification, continence was achieved in 62% children; however 27% children were constipated, followed by 12% children having fecal soiling. Conclusion: Functional outcome of anorectal malformation depends upon severity of disease. A thorough evaluation of all infants with ARM should be done with particular focus on cardiovascular [38%] and genitourinary abnormalities [33%].

## Artemisia absinthium

### Protection of DNA during oxidative stress and cytotoxic potential of Artemisia absinthium.

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**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 295-299

**Keywords:** Oxidative Stress; Cytotoxins; Antioxidants; In Vitro Techniques; DNA; Plant Extracts; Plants, Medicinal

**Abstract:** Medicinal plants are rich in secondary metabolites [alkaloids, glycosides, coumarins, flavonoides steroids, etc.] and considered to be more effective and a safer alternative source to manage a variety of diseases related to liver, heart and kidney disorders. This study determines in vitro antioxidant and in vivo toxicological profile including hemolytic, brine shrimp lethality and mutagenicity of aerial parts of Artemisia absinthium. DNA protection assay was performed on pUC19 plasmid vector using H<sub>2</sub>O<sub>2</sub> as oxidative agent. Total phenolic and flavonoid content were determined using colorimetric methods. Toxicity of the plant was evaluated by brine shrimp lethality, hemolytic and mutagenic activity. DNA protection assay of the plant showed concentration dependent protective effect and at concentration 10µmol/L revealed complete protective effect against H<sub>2</sub>O<sub>2</sub> induced DNA damage. Highest phenolic and flavonoid content was found to be 167.3 [mg GAE 100g DW<sup>-1</sup>] and 14 [mg CE 100g DW<sup>-1</sup>] respectively. Results showed that A. absinthium is potent against standard toxicological procedures, that indicates the presence of bioactive components in the plant and possess antioxidant activity that protects DNA against H<sub>2</sub>O<sub>2</sub> induced oxidative damage. Thus the results showed/support that A. absinthium provides significant health benefits.

## Arterial Occlusive Diseases

### Endovascular intervention for infrapopliteal chronic arterial occlusive disease.

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Assiut University - Department of Vascular Surgery

**Assiut Medical Journal** 2015; 39 (3): 217-228

**Keywords:** Endovascular Procedures; Prospective Studies; Retrospective Studies; Risk Factors; Popliteal Artery; Chronic Disease

**Abstract:** Abstract: This study aims at determining the effectiveness of infrapopliteal [IP] percutaneous transluminal angioplasty [PTA] techniques for treatment of infrapopliteal Peripheral arterial disease [PAD]. Methods: This study is a case series, combined prospective and retrospective, including 108 limbs in 104 patients with infrapopliteal PAD of Fontaine IIb, III and IV stages/ Rutherford categories 3, 4, 5 and 6. Patients underwent PTA using balloon dilatation in 73.1%, bare metal stents in 17.6%, Drug eluting balloon in 7.4%, and Drug eluting stent in 0.9% between February 2009 and January 2015. Results: Technical success was 94.2%. Primary patency at 3, 6, 12, 24 months are 92.9%, 79.3%, 69.5%, and 58.3% respectively, and was adversely affected by smoking [p=0.005]. Limb salvage at 1 year was 92.6%, and was adversely affected by smoking [p=0.027], diabetes [p=0.009], and Updated TASC II [p=0.023]. Conclusion: Infrapopliteal PTA is a safe, successful, and effective technique for treatment of critical limb ischemia, with an excellent technical success rate, good limb salvage rate, and a low per-procedural morbidity and mortality.

## Arthrocentesis

### Role for arthrocentesis in the treatment of temporo-mandibular joint dysfunction.

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**Assiut Medical Journal** 2015; 39 (3): 229-234

**Keywords:** Temporomandibular Joint; Temporomandibular Joint Dysfunction Syndrome; Temporomandibular Joint Disorders

**Abstract:** Abstract: The Temporo-mandibular joint [TMJ] is the joint directly in front of the ear on either side of the head where the upper jaw [maxilla] and lower jaw [mandible] meet. This joint is a typical sliding "ball and socket" that has a disc sandwiched between it. The TMJ is used throughout the day to move the jaw, especially in biting and chewing, talking, and yawning. It is one of the most frequently used joints of the body [Beuscher J., 2007]. Patients and Methods: The present study was conducted on 25 patients presented at outpatient clinic of Maxillo-facial Surgery Department. Patients with primary TMD [Intermittent joint pain, joint clicking, and normal mouth opening, MRI showing partial anterior disc displacement with reduction] were selected irrespective of their age and gender. Results: Arthrocentesis was done for 25 patients showing success in 23 patients and failure in 2 patients who required open surgery. Conclusion: Arthrocentesis is the least invasive TMJ surgery. It is also the least expensive. Since it is usually done in the office or in an outpatient clinic. It shows success rate 92% in patients with inclusion criteria.

## Bees

### Performance of honey bee colonies fed some proteinaceous diet under isolated conditions.

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**Assiut University Bulletin for Environmental Researches** 2015; 18 (2): 1-15

**Keywords:** Honey; Pollen

**Abstract:** The investigation was carried out at Plant Protection Department, Collage of Food and Agriculture Sciences, King Saud University. The experiment was done using honey bee nuclei kept under isolated conditions and fed with five mixtures of proteinaceous diets. The rate of food consumption, ability of honey bee nuclei to rear brood and quality of produced honey bee were determined. The best consumption rate was recorded with diet 3 [Date past] followed by diet 4 [Feed Bee[R]], diet 2 [Mesquite] and diet 5 [Corn gluten], respectively. The sealed brood areas of honey bee nuclei were highly dependent on the contribution of suitable protein from food as well as on its quality. Bee bread is the best source of protein for honey bees. The mean number of sealed brood cells under natural condition was 1066 cells / nucleus after 42 days. It differed significantly with all areas in the colonies fed different proteinaceous diets. The diet 4 [Feed Bee®] was the best one among the tested diets [174.7 cells / nucleus] followed by diet 3 [Mesquite, 111 cells / nucleus]. The poorest result was recorded for diet 5 [Corn gluten, 39 cells / nucleus]. The fresh weight, dry matter and protein content of full grown larvae and newly emerged honey bee workers were determined. All parameters under artificial feeding were less than those produced under control condition [bee bread]. The best results were obtained with feeding honey bee with Feed Bee® followed by diet 2 [Mesquite]. Total soluble solids percentage [T.S.S.%] and total haemolymph count [T.H.C.] were varied among different diets administrated. Also, the haemolymph protein percentages were reduced significantly with feeding on artificial diets. These results reflect the suitability of used diets to honey bees. The artificial diets depend on the Date past and Mesquite pods flowers were more favorable than traditional pollen substitute based on soybean meal.

## beta-Thalassemia

### Effect of iron deficiency on the phenotype of beta-thalassaemia trait.

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 230-231

**Keywords:** Anemia, Iron-Deficiency; Cross-Sectional Studies; Hemoglobin A2; Phenotype

**Abstract:** The objective of this study was to determine the effect of iron deficiency on Hb-A2 level in beta-thalassaemia trait and to determine the frequency of individuals with beta-thalassaemia trait who could be missed due to concomitant iron deficiency. A total of 120 patients were studied, out of which 23 were iron deficient [serum ferritin < 20 ng/ml]. Mean Hb-A2 in the iron deficient individuals was 4.1 +/- 0.47% as compared to 5.1 +/- 0.58% in the

remaining 97 individuals without iron deficiency [ $p < 0.001$ ]. In the 120 individuals with beta-thalassaemia trait, mean Hb-A2 was 5.8% with range 3 - 6.8% and confidence interval was 95%. In 2 individuals with beta-thalassaemia trait, iron deficiency was observed and showed Hb-A2 less than 3.5%. These could have been missed while screening by Hb-A2 estimation alone. Co-existence of iron deficiency and beta-thalassaemia trait may mask the diagnosis of beta-thalassaemia trait and such individuals can be missed during screening by Hb-A2 estimation alone.

## Biliary Tract Diseases

### **Role of fluorescence in situ hybridization in the diagnosis of malignant biliary stricture.**

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Assiut University - Faculty of Medicine - Department of Tropical Medicine and Gastroenterology

**Assiut Medical Journal** 2015; 39 (3): 31-38

**Keywords:** Constriction, Pathologic; Fluorescence; In Situ Hybridization, Fluorescence; Biliary Tract Neoplasms; Prospective Studies

**Abstract:** Introduction: Biliary stricture is a fixed narrowing of a focal segment of the bile duct that results in proximal biliary dilatation and clinical features of obstructive jaundice. A wide spectrum of hepatobiliary and pancreatic diseases, both benign and malignant, can result in the development of biliary strictures. Although trans abdominal ultrasound, computed tomography, and magnetic resonance imaging are sensitive for detecting bile duct pathology, they do not reliably distinguish strictures as being malignant or benign. FISH utilizes fluorescently labeled DNA probes to chromosomal centromeres or unique loci to detect cells that have numerical or structural abnormalities indicative of malignancy. Aim of the study: To evaluate the accuracy of FISH in the diagnosis of malignant biliary stricture. Patient and methods: Forty eight patients with indeterminate bile duct stricture presented with obstructive jaundice were prospectively enrolled and underwent ERCP and FISH over a period of 20 months from June 2013 to February 2015. Four patients were excluded because of loss of follow-up. Thus, 44 patients were included in data analysis [17 males and 27 females]. Results: The final diagnosis of stricture type was 32 malignant and 12 benign cases. FISH was positive in 30 cases and negative in 14 cases, sensitivity, specificity, positive predictive value, negative predictive value, and accuracy were 93.75, 100.00, 100.0, 85.7, 95.5 and 0.969 respectively. Conclusion: FISH increases the diagnostic accuracy of malignant biliary stricture. The sensitivity of FISH could improve the clinical management of patients being evaluated for malignant bile duct stricture by enabling a definitive diagnosis at an earlier stage in the clinical evaluation.

## Bioethics

### trends

#### **Promoting bioethics in the Eastern Mediterranean Region.**

Mandil, Ahmed; Dingwall, Phillip

WHO Regional Office for the Eastern Mediterranean

**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (4): 265-266

**Keywords:** Health Resources-ethics; Ethics Committees-organization and administration

## Brassica

### **Protective effect of broccoli and ferulic acid on imidacloprid-induced hepatotoxicity in rat.**

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**EJB-Egyptian Journal of Biochemistry and Molecular Biology [The]** 2015; 33 (1-2): 1-15

**Keywords:** Imidazoles; Nitro Compounds; Coumaric Acids; Plant Extracts; Oxidative Stress; Rats; DNA Damage

**Abstract:** Imidacloprid may induce oxidative stress leading to generate free radicals and alternate oxygen free radical scavenging enzyme system. This study aims to investigate the hepatoprotective effect of broccoli water extract and ferulic acid on imidacloprid induced oxidative stress and DNA damage in male albino rats. Rats were co-treated with broccoli water extract [200 mg/kg] or ferulic acid [20 mg/kg] with imidacloprid [80 mg/kg] orally for 28 days. The results revealed that imidacloprid induced high serum levels of aspartate aminotransferase [AST], alanine aminotransferase [ALT] and alkaline phosphatase [ALP]. However, administration of broccoli and ferulic acid reduced these parameters. Broccoli and ferulic acid significantly [Pbroccoli and ferulic acid treated groups. The possible

mechanism of broccoli and ferulic acid extract on imidacloprid might be due to decreasing oxidative stress [LPO, NO and DNA damage] and increasing GSH content. Thus, broccoli and ferulic acid was suggested to protected rat's liver against imidacloprid-induced oxidative stress and DNA damage in liver.

## Breast Neoplasms

### **Ki67- protein: a proliferation index in breast cancer.**

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**Reviews in Clinical Medicine [RCM]** 2015; 2 (4): 205-208

**Keywords:** Nuclear Proteins; Intracellular Signaling Peptides and Proteins; Biomarkers, Tumor; Ki-67 Antigen; Cell Proliferation

**Abstract:** Various clinicopathological factors are evaluated in different studies on carcinomas to demonstrate their prognostic and predictive significance during the diagnosis and therapeutic procedures of the malignancy. Ki-67 is a biomarker that was proposed as a cell proliferation related nuclear antigen, and it only expresses in growing and proliferating cells. This unique feature of Ki-67 makes it a subject of interest in different investigations. Evaluating the Ki-67 expression has been demonstrated to be beneficial in determining the tumor behavior including tumor size, stage, grading and patient survival. Moreover, it might be helpful in selecting the preferred subsequent treatment strategy. Due to the importance of Ki-67 index, we aim to briefly review its properties and the importance of its expression during various types of malignancies. At last, the prognostic and predictive value of Ki-67 would be overviewed regarding the efficacy of neoadjuvant and adjuvant therapies in breast cancer patients.

### **Nrf2 and P73 polymorphisms in Egyptian women with breast cancer.**

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**EJB-Egyptian Journal of Biochemistry and Molecular Biology [The]** 2015; 33 (1-2): 82-95

**Keywords:** NF-E2-Related Factor 2; Transcription Factors; Tumor Suppressor Proteins; Polymorphism, Genetic

**Abstract:** The aim of the study was to assess the role of Nrf2 promoter and P73 G4C14 to A4T14 polymorphisms in breast cancer and the potential relation to the onset of the disease. Eighty six female patients with breast tumor were included in this study. Nrf2 [rs6721961] and p73 [G4A] genetic polymorphisms in promoter and exon2 region respectively were investigated using PCR-CTPP assay. The genotype frequencies of the three genotypes of Nrf2 promoter SNP [CC, CA, AA] showed no significant difference between benign and malignant groups. Genotype frequencies for P73 G4A SNP [GG, GA] showed no significant difference between benign and malignant groups, no patient have the AA genotype. Regarding the onset of disease, the three Nrf2 genotypes in pre - and post-menopausal patients, showed that the distribution differ significantly in the 2 patients groups and that the AA genotype is significantly higher in the pre-menopausal patients compared to post-menopausal patients. Nrf2 [rs6721961] AA genotype might be related to early breast cancer onset. P73 G4A polymorphism shows no relation to both disease risk and disease onset. Therefore Nrf2 [rs6721961] promoter genotyping might be related to the risk of pre-menopausal breast cancer.

### **Serum Her-2/Neu a potential biomarker in breast cancer patients: correlation with the clinico-pathological parameters.**

Oun, Manar Abed Al Kreim Abed; El Yassin, Hedef Dhafir; Al Alwan, Nada A.

Institute of Radiation and Nuclear Medicine

**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 555-563

**Keywords:** Case-Control Studies; Receptor, ErbB-2-blood; Antigens, Neoplasm; Peptide Fragments; Biomarkers, Tumor

**Abstract:** Background: Breast cancer is the most common malignancy in women, and a major cause of mortality and morbidity despite the advances in diagnosis and treatment. There is evidence that changes in HER2 protein expressions are associated with breast cancer progression. Objective: To investigate whether measuring this tumour marker in serum of breast cancer patients before and after treatment might also be useful markers in the diagnosis, screening and monitoring the malignant tumour progression and response to therapy. Methods: Serum samples were obtained from [28] apparently healthy women [Control Group] with a mean age of 40.9 +/- 7.6 years and [60] female patients complaining from primary breast cancer [Patients Group] with a mean age of 48.3 +/- 8.9 years. They were divided according to their clinical end point into: Pre-Surgical Group, Post-Surgical Group and post- chemotherapy Group. Serum Her-2/neu level was measured using ELISA kits. Results: Level of Her2/neu [3130.4 pg/ml] was

significantly higher in after 6 cycles of chemotherapy group than each of control [1400.8 pg/ml], before surgery [1597 pg/ml] and after surgery [1487.4 pg/ml] [P <0.05]. Her2/neu is effective test only after 6 cycle chemotherapy with an accuracy of 95.2%. The best performance for Her2neu was observed at values  $\geq$  1464 pg/ml [sensitivity = 95% and specificity = 61%]. There were significant influences of the studied personal and the pathological characteristics of the tumour upon the biomarker levels where the levels were significantly higher with the increase of tumour pathological stage and in the presence of positive status for Her2neu receptors [P <0.05]. Conclusion: In this study there was a statistically significant association between tissue HER-2/neu and serum HER-2/neu levels in the extracellular domain. It could be concluded that using serum Her-2/neu in patients after six cycles chemotherapy could predict response to therapy.

## Burns

### therapy

#### **Formulation of a traditionally used polyherbal product for burn healing and HPTLC fingerprinting of its phenolic contents.**

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 95-105

**Keywords:** Plant Extracts; Phytotherapy; Medicine, Traditional; Malva; Solanum nigrum; Rosa

**Abstract:** Nowadays, plants have been considered as powerful agents for treatment of disorders regarding to their traditional use. In Iranian Traditional Medicine [ITM], plants have a special role in the treatment of various diseases. Burns with their devastating outcomes have been discussed in ITM as well. In the present study, a polyherbal ointment [PHO], retrieved from ITM, was formulated for burn healing and its HPTLC fingerprint was prepared. Aqueous extracts of Malva sylvestris and Solanum nigrum leaves and oily extract of Rosa damascene petals [4.85%, 4.85% and 33%, respectively] were added to white beeswax, eucerin and white petrolatum as ointment base. In addition to the microbiological tests, physical stability and rheological behavior of the product were assessed. Fingerprinting of phytochemical constituents of PHO was performed by using silica gel plates and toluene: ethyl acetate: acetic acid [60: 40: 1] and ethyl acetate: formic acid: acetic acid: water [100: 11: 11: 10] as mobile phases. The results showed that PHO was stable towards physical changes and successfully passed microbiological tests. Moreover, PHO exhibited plastic behavior which is in favor of a topical burn product. In addition, HPTLC fingerprinting of PHO demonstrated the presence of several phenolic constituents corresponding to the plant extracts. Regarding to the role of phenolic compounds in wound healing process, PHO could be an appropriate candidate for burn healing with respect to its traditional use in ITM. Moreover, HPTLC fingerprinting could be utilized as an applicable method for quality control of the prepared formulation.

## C-Reactive Protein

#### **The trends of CRP levels at different waist-to-hip ratios among normotensive overweight and obese patients: a pilot study.**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 191-194

**Keywords:** Waist-Hip Ratio; Overweight; Obesity; Blood Pressure

**Abstract:** Objective: To determine the correlation between CRP [C-reactive protein] and Waist to Hip Ratio [WHR] among over weight and obese patients with normal blood pressure. Study Design: An analytical study. Place and Duration of Study: Medical indoor and outpatient clinics of Mayo Hospital, Lahore, from March to August 2013. Methodology: Willing patients with Body Mass Index [BMI] of  $> 23$  kg/m<sup>2</sup>, normal blood pressures, and age between 18 - 65 years were inducted in the study. Patients with signs of fluid retention, collagen vascular disease, CAD, on corticosteroids, immunomodulators or lipid lowering medications, hypertensives and febrile patients were excluded. Patients were considered to be at low risk for cardiovascular events if WHR among males and females was  $< 0.95$  and  $< 0.80$ , respectively. Similarly, males and females with WHR  $> 1$  and  $> 0.85$ , respectively were taken as high risk. Levels in-between these ranges were taken as moderate risk. Data was analyzed on SPSS 15. Descriptive statistics were determined. The p-value was calculated by ANOVA and independent sample t-test among males and females respectively, to compare WHR in relation to different CRP levels and  $< 0.05$  was taken as significant. Results: There

were 34 male and 74 female patients. The gender-wise mean WHR did not show statistically significant difference categorized CRP levels [ $p=0.072$  in male, and  $0.052$  in females]. There was an increasing trend in CRP levels as WHR increased among females, but this was statistically insignificant [ $p=0.05$ ]. Conclusion: Although the impact of central obesity on cardiac health is well known, however, WHR alone is an unreliable indicator of systemic inflammation and raised CRP level.

## Candidiasis, Vulvovaginal

### therapy

#### **Development of a curcumin bioadhesive monolithic tablet for treatment of vaginal candidiasis.**

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 23-34

**Keywords:** Curcumin-therapeutic uses; In Vitro Techniques; Vaginal Creams, Foams, and Jellies

**Abstract:** The present investigation was designed to formulate a natural tablet for the treatment of vaginal candidiasis in order to eliminate side effects that are caused by existing antifungal drugs. Curcumin has promising antifungal activity in comparison with the existing azole antifungal drugs. Bioadhesive curcumin vaginal tablets were prepared by direct compression with different ratios of bioadhesive polymers like xanthan gum, guar gum and HPMC. Curcumin tablets were characterized by studies of friability, hardness, hydration, DSC, mucoadhesion, in vitro release and antifungal activity. DSC and FT-IR data indicate there was no interaction between the drug and the excipients and also polymer concentration has some effects on melting point of curcumin. Formulation F3 showed the best results in terms of swelling and mucoadhesion together with prolonged drug release. The antifungal activity of the Curcumin tablet has demonstrated a significant effect against *Candida albicans*. Hence, the study indicates the possible and effective use of curcumin bioadhesive monolithic vaginal tablet for vaginal candidiasis as a promising natural antifungal treatment.

## Captopril

#### **Voltammetric determination of captopril using multiwall carbon nanotubes paste electrode in the presence of isoproterenol as a mediator.**

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Islamic Azad University, Majlesi Branch - Young Researchers and Elite Club

**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 107-117

**Keywords:** Nanotubes, Carbon; Alcohols; Drug Combinations; Isoproterenol

**Abstract:** The electrocatalytic oxidation of captopril [CAP] was studied by modified carbon nanotubes paste electrode in the presence of isoproterenol [ISPT] using cyclic voltammetry [CV], chronoamperometry and square wave voltammetry [SWV]. Also, the values of catalytic rate constant [k], and electron transfer coefficient [ $\alpha$ ] for CAP were calculated. The mechanism of CA electrochemical behavior at the modified electrode surface was analyzed by various electrochemical methods in the presence of mediator. The prepared modified electrode showed voltammetric responses with high sensitivity for CAP, making it very suitable for the detection of CAP at trace levels. Under the optimized conditions, the peak current was linear to CAP concentration over the concentration range of 0.3 to 90 micromol L<sup>-1</sup> using SWV. The detection limit was 0.1 micromol L<sup>-1</sup>. The proposed method was successfully applied to the determination of CAP in the urine, tablet and patient urine samples.

## Carcinoma, Hepatocellular

#### **Novel prognostic biomarkers for HCC progression in Egyptian patients.**

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**Assiut Medical Journal** 2015; 39 (3): 49-58

**Keywords:** Cyclin D-blood; Cyclin-Dependent Kinase 4-blood; Prospective Studies; Cross-Sectional Studies; Liver Neoplasms

**Abstract:** Objectives: To evaluate values of Cyclin D and Cdk4 in HCC, chronic hepatitis C, HCV related liver cirrhosis and healthy controls, their clinico-radiological correlations and prognosis of HCC. Methods: Group 1: Fifty patients with HCC, Group 2: Fifty patients with chronic hepatitis C with or without cirrhosis and Group 3: Thirty healthy controls were enrolled. All patients were positive for hepatitis C virus [HCV] antibody and confirmed by HCV RNA. Calculation of Barcelona-Clinic Liver Cancer [BCLC] staging system, MELD and Child-Pugh scores mRNA for cyclin D1 and Cdk4 were analyzed by quantitative RT-PCR. Results: The mean Cyclin D1 and Cdk4 values were higher in HCC group compared with the other two groups [p value= 0.001]. In HCC group, the mean Cdk4 and cyclin D1 values were significantly higher among HCC patients with multiple hepatic focal lesion [HFL] [p value= 0.0001, and 0.003 respectively] compared with those with single lesion. A significant correlation between size of [HFL], alpha-Fetoprotein [AFP] and mean Cdk4 value. [p value= 0.028, 0.0001 respectively]. Conclusions: Significant values of cyclin D1 and Cdk4 were found in HCC, compared to normal and chronic hepatitis C and correlated to the number, size of HFL and AFP level. Thus, the assessment of cyclin D1 and Cdk4 may provide a novel strategy for prognostication and targeted therapy of HCC.

## Carotid Artery Diseases

### **Carotid atherosclerosis; prevalence in obese patients having hepatic steatosis and its effect on the development of MI.**

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 39-44

**Keywords:** Obesity; Fatty Liver; Cross-Sectional Studies; Myocardial Infarction

**Abstract:** Objectives: To determine the frequency of carotid atherosclerosis in obese patients having hepatic steatosis and its effect on the development of MI. Design: Cross sectional study. Setting: Department of Radiology Allied Hospital, Faisalabad. Period: From January 2012 to June 2013. Patients and Method: A total of 96 patients were included in this study. LOGIC 5 Doppler ultrasound machine was used. B-mode ultrasonography of common carotid arteries was performed on both sides with a 7.5 MHz linear array transducer. Ultrasound was done in supine position and elevation of chest by pillow. Patient head will be turned to the opposite side. Intima media thickness was accessed in the distal wall of common carotid artery of both sides 1.0 cm proximal to carotid bulb. Results: Mean age of the patients was 46.69 +/- 11.86 years. Out of 96 patients, 51 [53.1%] were males while remaining 45 patients [46.9%] were females. Presence of carotid atherosclerosis was noted in 96 patients [100.0%]. Out of these patients, myocardial infarction was present in 81 patients [84.4%]. Mean BMI was 30.67 +/- 0.47, mean weight was 91.86 +/- 7.57 Kg and intima media thickness was 0.84 +/- 0.12 mm. Conclusion: Prevalence of atherosclerotic changes in carotid arteries detected by Doppler ultrasound among obese patients having hepatic steatosis and its effect on the development of MI is remarkable.

## Catheterization, Peripheral

### **Causes and nursing countermeasures in pediatric PICC catheter complications.**

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**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 335-337

**Keywords:** Nursing; Pediatrics

**Abstract:** To analyze the complications and nursing countermeasures of PICC [Peripherally Inserted Central Catheter] catheters using children PICC catheter technique 40 cases, complications were observed, and analyze the original causes, in order to propose a solution. There were 10 cases of catheter blockage, 5 cases of catheter infection, 6 cases of phlebitis, 5 cases of puncture difficulties, 2 cases of poor feeding tube, 2 cases of bleeding puncture site with the continuous exploration and research of nursing intervention, the production of clinical complications from PICC has been used in children were greatly reduced.

## Cerebral Hemorrhage

### **Illustrated correlation of brain C.T. scan findings in clinical assessment of spontaneous intracerebral haematoma in patients with positive risk factors.**

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**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 570-575

**Keywords:** Prospective Studies; Risk Factors; Tomography, X-Ray Computed; Brain

**Abstract:** Background: Spontaneous intracerebral hemorrhage [SICH] is defined as non-traumatic bleeding into the parenchyma of the brain that may extend into the head computed tomography scan is the standard diagnostic tool. Objective: Find out the most important risk factor for SICH and illustrate the correlation between the sites of hemorrhage detected by CT scan images and patients presentations. Patients and Methods: A prospective study between May 2010 and May 2012; this study was done in the CT unit in. AL-Imamain Kadhimain medical city, Baghdad, The study included 224 consecutive patients with the diagnosis of primary SICH. All the patients had primary spontaneous intracerebral hemorrhage clinically diagnosed plus CT findings that showed evidence of intra-cerebral hemorrhage. Statistical analysis was done using SPSS 15. Results: This study included 224 patients, 128 males and 96 females. Forty two patients lie in the age group of 50-59 years, 66 between 60-69 years, 48 between 70-79 years, 52 patients are seventy years old and older and only 16 are below fifty years of age. Regarding the site of bleeding 160 patients [71.4%] had bleeding in deep seated areas of the brain and 64 patients [28.6%] had bleeding in a superficial location. Regarding the deep seated hemorrhage basal ganglia was in 96 [42.8%] of the patients, followed by Thalamus in 48 [21.4%], and cerebellum in 16 [7.2%] of the patients. In the superficial sites of hemorrhage parietal lobe was in 40 patients [17.8%], then parieto-occipital hemorrhage was in 16 [7.2%] patients and 8 patients [3.6%] had temporal lobe hemorrhage. Hypertension was the most common risk factors, found in 75% of patients, followed by anticoagulant use in 57.2% of patients. A history of diabetes mellitus was positive in 39.3% of the patients, 39.3% of them were smokers, and 25% patients had no history of any risk factors. A statistically significant difference between deep and superficial bleeding is seen in correlation with hypertension and smoking [P value is 0.00001 and 0.002 respectively] The focal neurological signs, found in 66 patients, facial palsy in 48 patients, loss of consciousness in 40 patients, 32 patients had both focal neurological signs and loss of consciousness as a presentation, 22 of them presented with speech difficulty, 8 patients presented with ataxia and 8 with dementia. Significant relationship was found between the site of hemorrhage and patients' presentation [P value 0.001]. 120 patients had intra-ventricular extension of hemorrhage in their CT films, 120 patients had pressure effect of the hemorrhage, and 104 were complicated by edema. Conclusion: Males are more affected than females by spontaneous intra-cerebral hemorrhage which tends to occur more commonly in a deep seated area of the brain. Hypertension is the most important risk factor. There is great correlation between patients' presentations and the site of hemorrhage. Patients 50 years and older are more liable for spontaneous intra-cerebral hemorrhage.

## Cesarean Section, Repeat

### **Implication of adhesiolysis in repeat cesarean section in low resources settings. Prospective cohort clinical study.**

Sayad, Asrar Saleh; Balafair, Amer Salmen; Mitwaly, Abo Bakr Abass

Hadhrumout University - Faculty of Medicine

**Assiut Medical Journal** 2015; 39 (3): 181-186

**Keywords:** Cesarean Section; Prospective Studies; Cohort Studies; Pregnancy; Tissue Adhesions

**Abstract:** Introduction: Adhesions formed after cesarean section varies according to the number of repeat section. Delivery times were reported to increase with increased number of cesarean section due to increased adhesion frequencies and density. This can induce effect upon Apgar score of the new born. Pelvic adhesions can influence the maternal morbidity which can occur in women with repeat cesarean section. Incision to delivery time affect and was effected by doing or not doing adhesiolysis. Material and Methods: This is a prospective cohort study to evaluate the implication of doing adhesiolysis during laparotomy of repeat cesarean section either before delivery of the fetus or after that. The study was done at El-Mukala maternal and child hospital and Hadhrumout maternal and child university hospital in the period from October 2012 to October 2015 to evaluate use of this maneuver with ascending curve of experience instead of use of anti-adhesion substances which is costly and also not available in low economic society. Our evaluation was related to maternal and perinatal morbidity factors. The operative procedure was explained in details. Statistical analysis was done using SPSS Software 22. Chi square test and student T test was used. Results: Adhesiolysis was done in 50 patients out of them: 13 had previous two cesarean sections, 28 had previous three cesarean sections, 8 had previous four cesarean sections and 1 had previous five cesarean sections. The dominant type of adhesions was omental, bladder and uterine adhesion forming bands with anterior abdominal wall. The utero



vesical adhesions were present in all cases. No maternal morbidity occurred during adhesiolysis, and other maternal morbidity unrelated to adhesion [common obstetric complications like bladder injury] did not occur. The percentage of cases with decreased Apgar score as 25 cases [50%] due to adhesiolysis related to delay in delivery of the fetus No perinatal mortality load occurred. The need for post-operative analgesia in spite of use of intra thecal morphine was in 5 cases [10%]. Post-operative spinal headache was in 10 cases [20%] no cases of wound infection or endometritis. Discussion: The use of adhesiolysis in repeat cesarean section adhesion with ascending curve of experience is essential in our low economic places and associated with no maternal nor perinatal complications. In addition to nearly absence of adhesion in next cesarean section [only 4% of cases] and easiness of operation due to absence of adhesions.

## Cholecystectomy

### **Haemodynamic and pulmonary changes during laproscopic versus open cholecystectomy.**

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**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 474-479

**Keywords:** Cholecystectomy, Laparoscopic; Peritoneal Cavity; Postoperative Period; Laparoscopy; Hemodynamics

**Abstract:** Background: Laparoscopy is a minimally invasive procedure allowing endoscopic access the peritoneal cavity after insufflation of a gas [CO<sub>2</sub>] to create space between the anterior abdominal wall and the viscera for safe manipulation. Objective: Is to note the haemodynamic and pulmonary changes during laparoscopy in the early postoperative period in comparison with open cholecystectomy. Patients and methods: 30 adult patients of ASA class I and II studied in each group according to surgical procedure used, monitoring used pulse oximetry, non invasive automatic blood pressure measurement, peak inspiratory pressure and capnography. Results: There is slight reduction of mean arterial pressure [MAP] and heart rate [HR] following induction of anesthesia in both groups. However, these effects tended to normalize in open cholecystectomy over time while in laparoscopy tend to normalize after desufflation. Postoperatively both groups sustain significant reduction in oxygen saturation [SPO<sub>2</sub>] but in laparoscopy was transient and clinically not significant. Conclusion: This study show that laparoscopy give better recovery and may decrease the need for postoperative oxygen therapy.

### **Scar pain, cosmesis and patient satisfaction in laparoscopic and open cholecystectomy.**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 216-219

**Keywords:** Cholecystectomy, Laparoscopic; Cross-Sectional Studies; Cicatrix; Patient Satisfaction; Surveys and Questionnaires

**Abstract:** Objective: To compare patient-satisfaction, scar-pain and cosmesis between laparoscopic and open-cholecystectomy. Study Design: Cross-sectional survey. Place and Duration of Study: Khyber Teaching Hospital, Peshawar, from August 2012 to May 2014. Methodology: A total of 400 patients, who had undergone open or laparoscopic cholecystectomy in all units of the Surgical Department, were included. Data was collected on questionnaires given and read to the patients along with counselling and information regarding scar-pain using visual analog score, and satisfaction and cosmesis on a 0 - 10 scale, by a medical professional in the patients' native language. This was done postoperatively on patients' follow-up visits at 1 and 4 weeks. Results: Mean scar pain score at 1 and 4 weeks postoperatively was higher for open-cholecystectomy; 4.96 +/- 1 and 0.96 +/- 1, compared to 2.24 +/- 0.6 and 0, respectively for laparoscopic-cholecystectomy [p < 0.001 and < 0.001]. Cosmesis was higher for laparoscopic-group; 8.6 +/- 1.2 vs. 6.2 +/- 1.46 for open-cholecystectomy [p < 0.001]. Patient-satisfaction was higher for laparoscopic-cholecystectomy; 9.28 +/- 1.5 vs. 8.32 +/- 2.3 for open-cholecystectomy [p < 0.001]. Mean-cosmesis score was higher for laparoscopic-cholecystectomy for those younger than 40, females and unmarried. Mean patientsatisfaction score was higher for those older than 40 years who had undergone open-cholecystectomy, women who had undergone laparoscopic-cholecystectomy and for unmarried patients who had laparoscopic-cholecystectomy. Conclusion: Overall patient-satisfaction and cosmesis scoring was higher for laparoscopic-cholecystectomy especially among females, unmarried and younger than 40 years. Patients of 40 years and older had greater satisfaction scoring for open-cholecystectomy. Therefore, laparoscopic-cholecystectomy should be favoured in females and unmarried patients and those younger than 40 years.

## Chromones

### **Biological evaluation and molecular docking of some chromenyl derivatives as potential antimicrobial agents.**

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Iuliu Hatieganu University of Medicine and Pharmacy - Pharmaceutical Chemistry Department

**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 261-272

**Keywords:** Anti-Infective Agents; Molecular Docking Simulation; In Vitro Techniques; Biological Assay

**Abstract:** Various thiosemicarbazones [TSCs] and their heterocyclic thiadiazolines [TDZ] possess important biological effects. In addition, chromenyl derivatives exhibit a wide range of pharmacological activities. Based on these findings and as a continuation of our research on nitrogen and sulfur containing compounds, we investigated a series of previously reported chromenyl-TSCs [1a-j] and chromenyl-TDZs [2a-j] for their in vitro antimicrobial activities against two bacterial and four fungal strains. MIC and MBC/MFC [microg/mL] values of these compounds were evaluated and compared to those of Spectinomycin, Moxifloxacin and Fluconazole, used as reference drugs. For a better understanding of the drug-receptor interactions, all the compounds were further subjected to molecular docking against four targets that were chosen based on the specific mechanism of action of the reference drugs used in the antimicrobial screening. All compounds tested showed equal or higher antibacterial/antifungal activities relative to the used reference drugs. In silico studies [molecular docking] revealed that all the investigated compounds showed good binding energies towards four receptor protein targets and supported their antimicrobial properties.

## Cisplatin

### **FTIR biospectroscopy investigation on cisplatin cytotoxicity in three pairs of sensitive and resistant cell line.**

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 213-220

**Keywords:** Spectroscopy, Fourier Transform Infrared; Cell Line; Antineoplastic Agents

**Abstract:** Fourier Transformed Infrared Spectroscopy [FTIR] has extensively been used for biological applications. Cisplatin is one the most useful antineoplastic chemotherapy drugs for a variety of different human cancers. One of the clinical problems in its application, which would consequently affect the therapeutic outcome of its application, is the occurrence of resistance to this agent. In this project three different pairs of sensitive and resistant cell lines of human ovarian A2780 and its resistant pair of A2780-CP, human ovarian OV2008 and its resistant pair of C13, and finally human lung carcinoma of HTB56 and its resistant pair of HTB56-CP were grown in the laboratory under the standard procedure. Saline was exposed to control cells, whereas 1, 5 and 10 microg/ml of cisplatin was exposed to experimental cells, for one hour. Cells were then collected and lyophilized from which spectra were taken. According to our results, we could not trigger a well-recognized cells biomolecular band at 1015  $\text{cm}^{-1}$ , being modified after exposure to cisplatin in all cell lines. On the other hand, there was a clear dose-dependent increase in protein beta-sheet structure related peaks shift in resistant cell lines after exposure to cisplatin. This would probably indicate an easier protein interaction site for cisplatin in the resistant cell lines, which would probably inhibit cisplatin from binding to DNA, as the cytotoxic target. As a conclusion, FTIR biospectroscopy has proven its potency to identify the interactions, as well as the false engagement cellular sites for cisplatin in sensitive and resistant cell lines.

## Clobetasol

### **therapeutic uses**

### **Enhancement of anti-dermatitis potential of clobetasol propionate by DHA [docosahexaenoic acid] rich algal oil nanoemulsion gel.**

Alam, Mohammad Sarfaraz; Ali, Mohammad Sajid; Zakir, Foziyah; Alam, Nawazish; Alam, Mohammad Intakhab; Ahmad, Faruque; Siddiquid, Masoom Raza; Ali, Mohammad Daud; Ansari, Mohammad Salahuddin; Ahmad, Sarfaraz; Ali, Maksood

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 35-52

**Keywords:** Fatty Acids, Omega-3; Dermatitis, Contact; Anti-Inflammatory Agents; Docosahexaenoic Acids

**Abstract:** The aim of the present study was to investigate the potential of nanoemulsion formulation for topical delivery of Clobetasol propionate [CP] using algal oil [containing omega-3 fatty acids] as the oil phase. CP has anti-inflammatory, immunomodulatory and antiproliferative activities. However, its clinical use is restricted to some extent due to its poor permeability across the skin. Algal oil was used as the oil phase and was also exploited for its anti-inflammatory effect along with CP in the treatment of inflammation associated with dermatitis. Nanoemulsion formulations were prepared by aqueous phase titration method, using algal oil, tween 20, PEG 200 and water as the oil phase, surfactant, co-surfactant and aqueous phase respectively. Furthermore, different formulations were subjected to evaluate for ex-vivo permeation and in-vivo anti-inflammatory, irritation and contact dermatitis studies. The optimized nanoemulsion was converted into hydrogel-thickened nanoemulsion system [HTN] using carbopol 971 and had a viscosity of 97.57 +/- 0.04 PaS. The optimized formulation had small average diameter [120 nm] with zeta potential of -37.01 mV which indicated good long-term stability. In-vivo anti-inflammatory activity indicated 84.55% and 41.04% inhibition of inflammation for drug loaded and placebo formulations respectively. The assessment of skin permeation was done by DSC and histopathology studies which indicated changes in the structure of epidermal membrane of skin. Contact dermatitis reveals that the higher NTPDase activity in the treatment with the CP-loaded nanoemulsion could be related to the higher anti-inflammatory effect in comparison with placebo nanoemulsion gel.

## Clonidine

### Validated colorimetric assay of clonidine hydrochloride from pharmaceutical preparations.

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 149-156

**Keywords:** Validation Studies as Topic; Spectrophotometry-methods; Antihypertensive Agents; Pharmaceutical Preparations; Colorimetry

**Abstract:** Clonidine hydrochloride is an antihypertensive agent used for migraine prophylaxis, attention deficit hyperactivity disorder, menopausal flushing and Tourette syndrome. The quantity of the active substance in pharmaceutical preparations must be within specific limits, in agreement with the respective label claim. Therefore, the aim of this study was to establish the conditions for two spectrophotometric methods for clonidine determination, based on the formation of the ion pair complex between clonidine hydrochloride and thymol blue/bromophenol blue. A Jasco UV-Vis 530 spectrophotometer was used for the analysis and the maxim absorbance was measured at 418 nm/448 nm against blank solution. After validation, the methods were used for quantification of clonidine hydrochloride in two commercial samples [tablets]. The recovery of active substance varies between 98.06 and 100.13% without interferences from the excipients.

## Colorectal Neoplasms

### Expression of P33ING1b protein in colorectal cancer.

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**Middle East Journal of Digestive Diseases** 2016; 8 (1): 44-50

**Keywords:** Tumor Suppressor Proteins; Retrospective Studies; Gene Expression

**Abstract:** Background: Colorectal cancer [CRC] is the second most common malignancy in the world. However, its mortality rate can be reduced if diagnosed early. P33ING1b is a tumor suppressor protein, which plays a role in growth control and apoptosis. Suppression of p33ING1b is associated with the loss of cellular growth control. However, p33ING1b expression in CRC and its correlations with clinicopathological factors have been less studied. The aim of this study was to examine p33ING1b expression in patients with CRC and evaluate its potential correlations with clinicopathological factors. Methods: P33ING1b protein expression was examined in 70 cases of CRC tissue samples and their corresponding neighboring normal tissues by immunohistochemistry. Moreover, p33ING1b expression in CRC and its correlations with clinicopathological variables including patients' sex and age, tumor type, location, stage, and differentiation grade were examined. Results: P33ING1b expression was significantly lower in tumor samples compared with the normal adjacent samples [p<0.002]. Conclusion: Low expression of P33ING1b in patients with colorectal cancer, may be an important molecular event in the pathogenesis of colorectal cancer. Our data suggest that reduced expression of p33ING1b may contribute to tumor genesis and accompanied by the loss of cellular growth control. In fact cell growth is out of control in lower expression of P33 and dysfunctional program cell death. P33 expression might explain the etiology of CRC for reducing the expression of tumor suppressor proteins.

**Human epidermal growth factor receptor expression in colorectal cancer and its relationship with clinicopathological characteristics.**

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**Middle East Journal of Digestive Diseases** 2016; 8 (1): 24-30

**Keywords:** Receptor, Epidermal Growth Factor; Genes, erbB-2; Retrospective Studies; Immunohistochemistry

**Abstract:** Background: Some recent studies reported human epidermal growth factor receptor [HER-2/neu] as a marker that can be used in immunological studies of colorectal carcinoma for predicting the prognosis and the treatment. Therefore, we aimed to investigate the frequency of HER-2 expression in patients with colorectal cancer, and explore the relationship between clinicopathological prognostic factors and its expression based on immunohistochemical analysis. Methods: This study included 50 patients with a histologically proven diagnosis of colorectal carcinoma who received surgery at Imam Khomeini Hospital affiliated to Mazandaran University of Medical Sciences. First, HER-2/neu protein expressions were detected by immunohistochemistry and then the data extracted from recorded files. Results: The median age of the patients was 60.2 +/- 13.9 years [range: 25-93 years]. There was no significant relationship between size of tumor, age, sex, lymph node metastases, distant metastasis, differentiation, and stage of the disease with positive expression of HER-2 in this study. Conclusion: No significant relationship between expression of HER-2 and clinicopathological prognostic factors was found in our study. Further comprehensive and prospective trial with standard method to evaluate the role of HER-2 expression among patients with colorectal cancer is needed.

## Congenital, Hereditary, and Neonatal Diseases and Abnormalities

### prevention and control

**The prevention of congenital and genetic disorders in the Eastern Mediterranean Region[1]**

**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (4): 321-323

**Keywords:** Genetic Diseases, Inborn-prevention and control; Maternal Health; Child Health-trends; Public Health

## Coronary Artery Disease

**Coronary artery disease in patients with chronic kidney disease: a brief literature review.**

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**Reviews in Clinical Medicine [RCM]** 2015; 2 (4): 182-186

**Keywords:** Renal Insufficiency, Chronic; Kidney Failure, Chronic; Mortality

**Abstract:** Cardiovascular is the major cause of death in chronic kidney disease and end-stage renal disease. The cardiovascular mortality rate of patients with renal impairment is evaluated to be higher than general population. Coronary artery disease seems to be an important type of cardiovascular complication among patients with chronic kidney disease and end-stage renal disease before the renal replacement therapy. Due to the strong association between chronic kidney disease and the incidence of coronary artery disease, accurate screening, diagnosis, and management of cardiovascular complications would be essential in patients at different stages of renal dysfunction. Despite the need for the comprehensive knowledge about different aspects of coronary artery disease in patients with renal failure, there is not sufficient evidence regarding the pathophysiology, ideal diagnosis, and treatment strategies for coronary heart disease in population with chronic kidney disease. In this study, we briefly reviewed the existing literatures about the possible screening, diagnosis, and the treatment approaches of risk of coronary heart disease in patients with kidney dysfunction.

## Coronavirus Infections

### epidemiology

#### **Awareness among a Saudi Arabian university community of Middle East respiratory syndrome coronavirus following an outbreak.**

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**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (5): 351-360

**Keywords:** Middle East Respiratory Syndrome Coronavirus-pathogenicity; Awareness; Health Knowledge, Attitudes, Practice; Health Personnel-education; Surveys and Questionnaires; Cross-Sectional Studies; Prospective Studies

**Abstract:** This study aimed to measure the level of awareness of faculty members, staff and students in a female Saudi Arabian university community towards Middle East respiratory syndrome coronavirus. [MERS-CoV] following an outbreak. A self-administered questionnaire containing knowledge questions was distributed and completed by the 1541 participants. The overall knowledge score was 43.2%. It was only significantly higher in participants from the health colleges [50.6%]. The majority [78.9%] of the respondents recognized the typical symptoms of MERS-CoV but only 67.1% knew the recommended preventive hygiene practices. Awareness of disease epidemiology, severity, fatality rate and treatment was very low. The knowledge of health care workers/students of the recommended precautions that should be applied when dealing with patients was poor [55.5%]. Significant improvement in educational programmes for both the health care and non-health care professionals is warranted, particularly in crowded educational institutions or workplaces.

## Craniocerebral Trauma

### therapy

#### **Clinical research on postoperative efficacy and related factors of early simulation hyperbaric oxygen therapy for severe craniocerebral injury.**

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Zhengzhou University - Zhengzhou Central Hospital Affiliated - Intensive Care Unit

**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 273-280

**Keywords:** Hyperbaric Oxygenation; Clinical Protocols; Therapeutics

**Abstract:** In order to discuss the clinical efficacy of simulation hyperbaric oxygen therapy [HBOT] for severe craniocerebral injury and analyze the related factors of it, 108 patients who transferred to our department during December 2010 - December 2014 for ventilator treatment after operation of severe craniocerebral injury were taken as the subjects of the study. These patients were divided into conventional treatment group and simulation hyperbaric oxygen therapy group to contrast the curative effects. At the meantime, GOS score and length of stay in intensive care unit [ICU] of two groups 6 months after treatment, as well as changes in the indexes of the HBO group during treatment were performed statistical analysis. Then factors affecting prognosis of simulation HBOT were performed regression analysis and principal component analysis. The results showed that when compared to the control group, differences in cases with four GOS score and one GOS score in the treatment group were significant [p<0.05]. Regression analysis indicated that factors affecting prognosis included cerebral contusion, coronary heart disease, hydrocephalus and tracheotomy. Principal component analysis found the factors were hydrocephalus, coronary heart disease, tracheotomy, cerebral contusion, cerebral infarction and glasgow coma scale [GCS] before treatment. Therefore, stimulation HBOT can significantly improve the prognosis of patients with severe craniocerebral injury. Paying attention to risk factors in clinics and giving timely interventional treatment can reduce morbidity and mortality in patients.

## Crocus

#### **Effects of saffron [*Crocus sativus* L.] stigma extract and its active constituent crocin on neuropathic pain responses in a rat model of chronic constriction injury.**

Safakhah, Hossein Ali; Taghavi, Tahereh; Rashidy Pour, Ali; Vafaei, Abbas Ali; Sokhanvar, Mina; Mohebbi, Narges; Rezaei Tavirani, Mostafa

Semnan University of Medical Sciences - Faculty of Medicine - Department of Physiology

**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 253-261

**Keywords:** Carotenoids; Neuralgia; Constriction; Rats, Wistar; Hyperalgesia; Plant Extracts

**Abstract:** This study was designed to investigate the therapeutic effects of saffron [*Crocus Sativus L*] and its main constituent crocin on neuropathic pain behavioral responses induced by chronic constriction injury [CCI] in rats. Adult male Wistar rats [200 to 250 g] were randomly assigned into 5 groups: Sham + saline, CCI + saline, CCI+ saffron [30 mg/kg], CCI +crocin [15 mg/kg] and CCI + crocin [30 mg/kg]. CCI was induced by applying 4 loose ligatures around the sciatic nerve. Two weeks after nerve lesion, injections of saline, saffron or crocin were started and continued until 26th day post-surgery. Pain behavioral responses including mechanical allodynia [von Frey filament testing] and thermal hyperalgesia were measured in 14, 17, 20, 23, 26, and 40th days after CCI. CCI significantly increased pain behavioral responses. Saffron and crocin [30 mg/kg] decreased thermal hyperalgesia and mechanical allodynia on day 26, and this effect continued until the day 40. Crocin at lower dose [15 mg/kg] was ineffective. These findings indicate that treatment of saffron and crocin after CCI may have a therapeutic effect against neuropathic pain, suggesting that these substances may offer new strategies for the treatment of this highly debilitating condition.

## Cross Infection

### prevention and control

#### Prevention infection of newborn nosocomial and distribution of multiple drug resistant organism of the medicinal.

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**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 361-365

**Keywords:** Drug Resistance; Infant Health; Infant, Newborn; Drug Resistance, Multiple

**Abstract:** 2124 neonates were monitored from February 2013 to August 2014, among which 1119 were admitted from outpatient department [outpatient group], 782 were transferred from other departments [other department group], and 223 were from other hospitals [other hospital group]. Through it we explore the distribution of multidrug resistant organism in neonates, which were admitted to the hospital through various ways, and therefore analyze the risk factors of nosocomial infection to avoid cross infection of multi drug resistant organism in neonatology department. The results showed that 105 strains of multi drug resistant bacteria were detected in the neonatal department. Among them, there were 57 strains from the outpatient group, 27 from the other department group, and 21 from the other hospital group. Neonates with the hospitalization time of more than 14 days and low birth weight infants [1500 g] were the high-risk groups of drug-resistant strains in nosocomial infection. So the infection in neonates from other departments or hospitals should be strengthened, especially the prevention and control in neonates with the hospitalization time than 14 days and low birth weight infants [1500 g] in order to reduce the occurrence of multiple drug-resistant strains cross infection.

## Curcumin

### pharmacology

#### Analysis of the antiproliferative effects of curcumin and nanocurcumin in MDA-MB231 as a breast cancer cell line.

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 231-239

**Keywords:** Breast Neoplasms; Cell Line; Antineoplastic Agents; Curcumin-pharmacokinetics; In Vitro Techniques; Adenocarcinoma

**Abstract:** Cancer is one of the main cause of mortality in the world which appears by the effect of. environmental physico-chemical mutagen and carcinogen agents. The identification of new cytotoxic drug with low side effects on immune system has developed as important area in new studies of immunopharmacology. Curcumin is a natural polyphenol with anti-oxidative, anti-inflammatory and. anti-cancer properties. Its therapeutic potential is substantially hindered by the rather low water solubility and bioavailability, hence the need for suitable carriers. In this report we employed nanogel-based nanoparticle approach to improve upon its effectiveness. Myristic acid-chitosan [MA-chitosan] nanogels were prepared by the technique of self-assembly. Curcumin was loaded into the nanogels. The

surface morphology of the prepared nanoparticles was determined using SEM and TEM. The other objective of this study was to examine the in vitro cytotoxic activity of cell death of curcumin and nanocurcumin on human breast adenocarcinoma cell line [MDA-MB231]. Cytotoxicity and viability of curcumin and nanocurcumin were assessed by 3-[4, 5-dimethylthiazol-2-yl]-2, 5-diphenyltetrazolium bromide [MTT] and dye exclusion assay. Transmission electron microscopy confirmed the particle diameter was between 150 to 200 nm. Proliferation of MDA-MB231 cells was significantly inhibited by curcumin and nanocurcumin in a concentration-dependent manner in defined times. There were significant differences in IC<sub>50</sub> curcumin and nanocurcumin curcumin -loaded nanoparticles proved more effective compared to TQ solution. The high drug-targeting potential and efficiency demonstrates the significant role of the anticancer properties of curcumin -loaded nanoparticles.

### **Effect of curcumin administration against some biochemical alteration induced by acrylamide in adult male albino rats.**

Taha, Ahmad; Soltan, Sameh; Gadalla, Ahmad; Kadry, Eman  
Al-Azhar University - Faculty of Medicine - Department of Physiology

**Assiut Medical Journal** 2015; 39 (3): 143-152

**Keywords:** Curcumin-administration and dosage; Acrylamide-pharmacology; Rats

**Abstract:** Acrylamide is a chemical used in many industries, found in carbohydrate rich foods cooked at high temperature. Although it is found to be harmful, human are exposed to varying amounts of it in the diet, especially fried food. Curcumin is a herbal agent used in medicine and proved to be protective against many harmful agents. This study was undertaken to assess the protective effect of curcumin against some biochemical alteration induced by acrylamide in male albino rats. The experimental rats were divided into four groups included a control group, a group treated orally with curcumin by supercritical fluid extractor for 30 days, a group treated orally with acrylamide and a group treated orally with curcumin + acrylamide for 30 days. The results indicated that treatment with ACR alone resulted in a significant decrease in the haematological parameters, triglycerides, insulin, creatine kinase and choline esterase while the concentrations of urea, creatinine, ALT, AST and alkaline phosphatase were increased. Treatment with curcumin during ACR treatment reduced the effects induced by ACR, It could be concluded that curcumin exhibited a protective action against ACR-induced biochemical alterations in rats. For this reason, curcumin is recommended to be used in cooked food due to its palatable taste and prophylactic effect.

## Cyclosporine

### therapeutic uses

#### **A 16 month survey of cyclosporine utilization evaluation in allogeneic hematopoietic stem cell transplant recipients.**

Ardekani, Maria Tavakoli; Tafazoli, Ali; Mehdizadeh, Mahshid; Hajifathali, Abbas; Dadashzadeh, Simin  
Shahid Beheshti University of Medical Sciences - School of Pharmacy and Pharmaceutical Sciences Research Center  
Department of Clinical Pharmacy

**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 331-339

**Keywords:** Hematopoietic Stem Cell Transplantation; Transplantation, Homologous; Graft vs Host Disease; Transplant Recipients; Surveys and Questionnaires; Drug Utilization Review

**Abstract:** Objectives: Graft versus host disease [GVHD] is a life threatening reaction in the stem cell transplantation process. Nowadays Cyclosporine is the most commonly utilized agent for GVHD prophylaxis and it has a major role in successful transplantation. Cyclosporine has been applied for many years in this field but it could be stated that currently no general consensus is available for its optimal method of administration. Conditions related to cyclosporine administration and possible related adverse reactions observed closely in our patients with the aim of constructing a comprehensive practice guideline in the future. Patients and Methods: Allogeneic stem cell transplant recipients who have been taking cyclosporine were monitored during and after their hospitalization while recording all observations on predefined questionnaires on the basis of periodic clinical and laboratory examinations for a 16 month period. Results: Mean recorded duration of infusions was 1.44 +/- 0.68 h and by twice daily administration, means intravenous and oral dose was 101.85 +/- 22.03 mg and 219.28 +/- 63.9 mg, respectively. A mean CsA trough level after about 12 h of specified unique doses was 223 +/- 65 ng/mL. We found hypertension, nephrotoxicity, neurotoxicity, hypertension, and dyslipidemia in about 14, 20, 48, and 94 percent of patients. Conclusions: This study proposed that permanent guidance of healthcare team according to a fixed and standard method of cyclosporine administration routine with using efficient facilities and protocols would be helpful considerably for an optimal pharmacotherapy.

## Cystectomy

### methods

#### **Discussion on robot-assisted laparoscopic cystectomy and ileal neobladder surgery preoperative care.**

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**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 331-334

**Keywords:** Ileal Diseases; Preoperative Care; Retrospective Studies; Urinary Bladder Neoplasms; Robotic Surgical Procedures; Laparoscopy

**Abstract:** To investigate the clinical applications of robot-assisted radical cystectomy with orthotopic ileal neobladder [RARC-INB] and make a preliminary summary. Retrospective analysis the clinical data of 12 patients underwent robotic bladder cancer [da vinci surgical system] assisted laparoscopic cystectomy with ileal orthotopic neobladder from March 2015 to April 2015. 12 cases were successful, with no surgical intervention, and organ damage occurred. The operation time was 330~470 min, which average [390.0 +/- 61.5] min; blood loss was 90~870 ml, which average [185.0 +/- 88.3] ml. One case of intraoperative blood transfusion was 400 ml. The enjoin eating time of postoperative intestinal ventilation was 3~6 d, and the average time was [4.0 +/- 1.5] d. Removal of ureteral stents time was 14~28 d and the average time was [21. +/- 7] d. Removal of the catheter time was 18~28 d and the average time was [23 +/- 5] d. Postoperative hospital stay 19~29 d and the average time was [24 +/- 5] d. RARC-INB make the surgical tends to simplify, which was conducive to surgeon intraoperative control and assurance. RARC-INB make the surgical tends to use less trauma, less bleeding, complete lymphadenectomy, quick recovery, etc. It is a safe, effective and reliable method in the treatment of invasive bladder cancer. So the method should be widely applied.

## Delivery of Health Care

#### **Knowledge discovery from patients' behavior via clustering-classification algorithms based on weighted eRFM and CLV model: an empirical study in public health care services.**

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 355-367

**Keywords:** Knowledge; Behavior; Algorithms; Cluster Analysis; Classification; Hospitals; Data Mining

**Abstract:** The rapid growing of information technology [IT] motivates and makes competitive advantages in health care industry. Nowadays, many hospitals try to build a successful customer relationship management [CRM] to recognize target and potential patients, increase patient loyalty and satisfaction and finally maximize their profitability. Many hospitals have large data warehouses containing customer demographic and transactions information. Data mining techniques can be used to analyze this data and discover hidden knowledge of customers. This research develops an extended RFM model, namely RFML [added parameter: Length] based on health care services for a public sector hospital in Iran with the idea that there is contrast between patient and customer loyalty, to estimate customer life time value [CLV] for each patient. We used Two-step and K-means algorithms as clustering methods and Decision tree [CHAID] as classification technique to segment the patients to find out target, potential and loyal customers in order to implement strengthen CRM. Two approaches are used for classification: first, the result of clustering is considered as Decision attribute in classification process and second, the result of segmentation based on CLV value of patients [estimated by RFML] is considered as Decision attribute. Finally the results of CHAID algorithm show the significant hidden rules and identify existing patterns of hospital consumers.

## Dengue

#### **Defining acute kidney injury in dengue infection. What criteria do we use?**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 238-239

**Keywords:** Acute Kidney Injury; Hospitalization; Mortality; Incidence



## Dental Restoration, Temporary

### Comparison of micro-leakage around temporary restorative materials placed in complex endodontic access cavities: an in-vitro study.

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 182-186

**Keywords:** In Vitro Techniques; Dental Leakage; Dental Materials; Dental Pulp Cavity

**Abstract:** Objective: To compare mean micro-leakage around 3 types of temporary restorative materials in-vitro, when placed adjacent to permanent restorations [amalgam] in complex endodontic access cavities. Study Design: Randomized controlled trial. Place and Duration of Study: Dental Clinics, Dental Laboratory and Research Laboratory at the Aga Khan University Hospital, Karachi, from January to June 2014. Methodology: After random allocation of 60 teeth into 3 experimental groups, each group had conventional class II cavities prepared and amalgam placed. After 14 days, endodontic access cavities were made in these teeth, followed by placement of Cavit, IRM and CLIP [depth of 4 mm each]. After thermo-cycling and immersion in 0.5% methylene blue dye, the teeth were sectioned mesio-distally and observed under stereoscopic microscope [magnification x4] along 2 interfaces 'a' and 'b' [tooth-temporary restoration and temporary restoration-primary restoration], respectively. Depth of dye penetration was measured in millimeters. Results: IRM was leakiest at interface 'a', Cavit had highest dye penetration at interface 'b', while CLIP exhibited least micro-leakage at 'a' and 'b'. The mean dye penetration for Cavit was 0.80 +/- 0.23 mm at 'a', and 2.24 +/- 0.48 mm at 'b'. For IRM, it was 1.82 +/- 0.09 mm at 'a', and 0.44 +/- 0.13 mm at 'b'. For CLIP, the mean dye penetration was 0.43 +/- 0.05 mm at 'a', and 0.32 +/- 0.12 mm at 'b'. The difference in dye penetration observed between the 3 groups at both interfaces was statistically significant. Conclusion: In a complex access cavity made adjacent to a pre-existing amalgam restoration, CLIP exhibits the least micro-leakage, followed by IRM and Cavit.

## Depressive Disorder, Treatment-Resistant

### [Resistance to sectorisation: example of the governorate of Nabeul in Tunisia]

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**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (4): 314-320

**Keywords:** Psychotic Disorders-therapy; Psychiatry; Psychotic Disorders-diagnosis; Mental Disorders-therapy; Depression-diagnosis

**Abstract:** Sectorisation was introduced in Tunisia in 1999. The objective of this study was to examine the difficulties and resistance to the sectorisation of psychiatric care in the state of Nabeul. A transversal study was conducted over a period of 5 months from 1 November 2014 to 31 March 2015 on 96 patients resident in the state of Nabeul and treated at Razi hospital. Patients were aged between 18 and 69 years old [sex ratio equal to one], 55.2% were single and 46% had a low socio-economic level [n=44]. Chronic psychotic disorder was diagnosed in 64.3%, depression in 12.3%, bipolar disorder in 18.8% and mental retardation in 3% of cases. Most of them refused to continue psychiatric treatment in the second or the first line of care. Resistance to sectorisation was associated with a low socioeconomic level [P = 0.039], availability of a companion [P = 0.04], celibacy [P = 0.04], gender [P = 0.05] and negatively correlated to psychotic disorder diagnosis. It was concluded that the environment plays an important role in the choice of the place of care. Subjects treated for mental illness were found to have greater trust in the structures that treated the acute episode of their illness, and paradoxically felt less stigmatized in Razi hospital.

## Dermatoglyphics

### Anatomical study of the pores of the epidermal ridges in a sample of the adult upper Egyptians.

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Assiut University - Faculty of Medicine - Department of Human Anatomy and Embryology

**Assiut Medical Journal** 2015; 39 (3): 133-142

**Keywords:** Epidermis; Gender Identity; Skin-anatomy and histology

**Abstract:** Background: Poroscopy is the term applied to the study of the pore characteristics found on the papillary ridges of the skin as a method of identification which was proved to be reliable and accurate. Objective: The goal of this work was to examine the epidermal pores among the adult Upper Egyptians and to detect the influence of gender

on their frequency, type, size and shape. So far, no previous research handled this topic on the Upper Egyptians. Subjects and methods: The inked left thumb prints of 200 adult Upper Egyptians [100 males and 100 females] within an age range of 18 - 20 years were examined. Results: The results revealed that the mean number of the epidermal pores in a specific area was greater in the females with a statistically significant difference. As regard the type, size and shape of the pores, it was observed that the closed, medium-sized and circular pores were the most common in both sexes. The females had statistically significant more pores opened on one side and on both sides. Also, the females had more small and medium-sized pores with statistically significant differences. The females had statistically significant values for the circular, triangular and rectangular pores whereas the males had more miscellaneous pores with a statistically significant difference. Conclusion: The characters of the pores present on the papillary ridges of the skin may be used as means of identification and sexual differentiation for the Upper Egyptians.

## Dermoid Cyst

### **Epidermoid/Dermoid cysts mimicking odontogenic infections: review of literature.**

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**Reviews in Clinical Medicine [RCM]** 2015; 2 (4): 190-194

**Keywords:** Epidermal Cyst; Odontogenic Cysts; Submandibular Gland-pathology

**Abstract:** Introduction: Dermoid/Epidermoid cysts are rare pathologic lesions that may involve the floor of the mouth. Infection and inflammation of the cyst can produce a clinical picture very similar to the submandibular and submental abscesses with odontogenic origin. Dermoid/epidermoid cysts are on the floor of the mouth with submental or submandibular component can be mistaken for odontogenic infections. Methods: Four biopsy proven dermoid/epidermoid cysts operated in the Mashhad University of Medical Sciences, Ghaem hospital [2012-2013], were reviewed. Results: Four patients, including two classic cases and two infected dermoid/epidermoid cysts, were erroneously diagnosed as odontogenic infection. Discussion: The lesions located solely below mylohyoid muscle need to be removed through an extraoral approach but the lesions above the mylohyoid muscle or those that have both supra- and infra-mylohyoid components can be removed through an intraoral incision. Conclusion: Dermoid/epidermoid cysts should be considered in the differential diagnosis of submental/submandibular swellings. In the absence of an odontogenic cause of infection, fine-needle aspiration biopsy and appropriate imaging evaluation techniques with sonography, CT or MRI are mandatory for correct diagnosis and surgical treatment planning. The clinicians should be very cautious to differentiate odontogenic infections from infected dermoid/epidermoid cysts.

## Diabetes Mellitus

### **Perception of diabetic patients regarding basal bolus insulin injections and outcome of its use.**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 177-181

**Keywords:** Perception; Insulin-analogs and derivatives; Injections; Recombinant Proteins; Hemoglobin A, Glycosylated; Blood Glucose; Surveys and Questionnaires

**Abstract:** Objective: To assess the perceptions regarding basal bolus insulin injections and the changes in blood glucose levels and glycosylated hemoglobin [HbA1c] before and after 3 months of such treatment in diabetic patients. Study Design: Quasi-experimental study. Place and Duration of Study: Department of Endocrinology, Liaquat National Hospital, Karachi, from December 2014 to March 2015. Methodology: A total of 222 diabetic patients started on basal bolus insulin injection were enrolled and asked to answer 17 questions. Those with complications of diabetes were excluded. Fasting blood glucose [FBS], random blood glucose [RBS] and HbA1c levels were checked initially, and after 3 months of getting basal bolus insulin. Paired t-test and chi-square test were used for determining p-value with significance at  $p < 0.05$ . Results: Majority [n=217, 97.7%] of the patients were previously taking other insulins. Before starting this treatment, the mean FBS was 260.5 +/- 52.2 mg/dl, RBS was 385.5 +/- 47.61 mg/dl and HbA1c was 12.76 +/- 1.92%. After 3 months of treatment, FBS improved to 117.9 +/- 14.2 mg/dl, RBS was 156.7 +/- 17.09 mg/dl and HbA1c was 7.72 +/- 4.41% [ $p < 0.001$ ]. Two hundred and sixteen [97.3%] patients believed that basal bolus insulin was started as their diabetes worsened; 157 [70.70%] thought that their blood glucose control would improve with the use of this form of insulin. One hundred and ninety four [87.4%] had fear of needle injections. Perceptions regarding hypoglycemia with this form of insulin were observed in 157 [70.7%]. One hundred and twenty seven [84.1%] of the females and 51 [71.8%] of the males thought that the basal bolus insulin regimen was too expensive [ $p=0.032$ ]. Conclusion: There were many misconceptions in patients who were started on basal bolus insulin. Marked improvement in blood glucose levels and HbA1c were observed after the use of this regimen.

## Diabetes Mellitus, Type 2

### **Insulin resistance and cognitive impairment in type II diabetes mellitus.**

Mohamed, Mostafa G.; Khedr, Eman M.; Ahmed, Marwa A.; Sayed, Sally A.

Assiut University Neuropsychiatry - Faculty of Medicine - Department of Medical Physiology

**Assiut Medical Journal** 2015; 39 (3): 195-208

**Keywords:** Insulin Resistance; Cross-Sectional Studies; Hemoglobin A, Glycosylated; Cognition Disorders

**Abstract:** Background: Type II Diabetes mellitus [DM] is a metabolic disorder that is characterized by high blood glucose because of the insulin resistance. Significant 1 more interest has been dedicated to the effect of type II diabetes on the brain. Along with cerebrovascular disease, type II diabetes is implicated in the development of other neurological co-morbidities. Aim of the work: To study cognitive functions in type II DM and the effect of insulin resistance on it. Subjects and methods: In the present study, cognitive function tests were done for 37 subjects; control [n= 17], type II DM [n= 20]. These tests include mini mental state examination [MMSE], Wechsler adult intelligence scale [WAIS], Wechsler memory scale [WMS] and Cognitive Event related potential [P300]. Circulating levels of glycosylated haemoglobin [HbA[1c]] and insulin were determined in venous blood samples of both groups. Results: MMSE was significantly lower in type II DM than control group [p-value = 0.034]. However no significant difference between type II DM and control group in WAIS and WMS except in visual reproduction [p-value = 0.048]. P300 latency was significantly longer in type II DM than controls [p-value 0.0001]. P300 amplitude was decreased significantly in type II DM than controls [p-value= 0.0001]. HbA[1c] and insulin was significantly higher in type II DM than controls [p-value= 0.0001]. Conclusion: type II DM is associated with cognitive impairment which may be due to insulin resistance.

## Diabetes, Gestational

### **diagnosis**

#### **Gestational diabetes mellitus; still a great problem.**

Qazi, Afsheen; Fahim, Amin; Qureshi, Aneela; Mazhar ul Haque

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 15-19

**Keywords:** Prospective Studies; Tertiary Care Centers; Pregnant Women; Prevalence; Obesity

**Abstract:** Objectives: The present study was designed to find the importance of proper screening and early diagnosis of gestational diabetes mellitus. Study Design: A prospective/ descriptive study Place of Study: tertiary care hospital Hyderabad. Duration of Study: from September 2014 to November 2014. Materials and Methods: A total of 168 pregnant females between the ages of 20-40 years and in their 24[th] to 28[th] week of gestation were enrolled for the study. Oral Glucose Tolerance Test of all the participants was done after an overnight fasting of 10-12 hours. All the participants were given 75gm of glucose per 100 ml of distilled water. The blood samples were collected after two hours' time for serum glucose levels. Results: Most of the participants were below 26 years of age 47[27.9%] with the mean age of 30.2 +/- 5.83 years. However the highest prevalence of GDM was observed in age group 31-35 years [36%]. Among the 25 cases of gestational diabetes mellitus the highest number of patients with GDM were multipara [40%] followed by parity of 3-4 gravida [32%]. Twenty seven women [16%] women had family history of diabetes mellitus. Among these 12/27 [44.4%] women were found with GDM, compared to 15/141 [10.6%] who have no family history of diabetes mellitus. Total 14 [8.33%] women were found obese, out of these 8 [57%] women had GDM while only 6 [42.8%] women had no GDM. Conclusion: The prevalence of GDM in the present study is found to be 14.8%. A prevalence of GDM was higher in the elderly multiparous females who were overweight and had family history of diabetes mellitus.

## Diabetic Foot

### **diagnosis**

#### **Diabetic foot ulcer; sequelae.**

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 1-5

**Keywords:** Diabetes Mellitus; Disease Management; Diabetic Foot-complications

**Abstract:** Objective: The number of diabetic patients is increasing at a rapid rate<sup>1</sup>. Management of diabetic foot has been a challenge for medical professionals. This study was carried out to find the sequelae of diabetic foot ulcer management. Study design: Observational analytical study. Setting: Military Hospital, Combined Military Hospitals Rawalpindi and MIMC teaching Hospital, Mirpur [AJK]. Period: Sep 2009 to August 2013. Materials and methods: Total 310 patients were included in this study as outdoor and indoor cases. Out of these 184 were males and 126 were females. Age affected ranged from 20 years to 90 years. Average age was 50 years. Wagner's grading for diabetic foot ulcer was used as guideline for management. Results: Hyperglycemia was controlled in consultation with physicians in all these patients. Out of these 310 patients 199 [64%] patients got their feet wounds healed on conservative management without amputation while 111[35.8%] patients had to undergo some amputation at some level. Conclusion: Diabetes mellitus, fore runner of so many diseases requires multidisciplinary approach. Well controlled diabetes mellitus, good feet hygiene, rational antibiotics in light of culture/sensitivity report and timely conservative or active surgical intervention produce good results in diabetic foot management.

## Diosmin

### **Simultaneous determination of diosmin and hesperidin in pharmaceuticals by RPLC using ionic liquids as mobile phase modifiers.**

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 141-148

**Keywords:** Hesperidin; Chromatography, Reverse-Phase; Ionic Liquids; Citrus

**Abstract:** Diosmin and hesperidin are natural flavonoid glycosides found in various plant materials, mainly in citrus fruits in different concentrations. Diosmin for pharmaceutical use is obtained mainly semi-synthetically from hesperidin. Hesperidin often accompanies diosmin as a natural impurity in different pharmaceutical formulations; therefore, a simple, fast and precise method for the simultaneous assay of diosmin and hesperidin in pharmaceutical formulations has been developed to control their contents. Chromatographic resolution was performed using a column with C-18 packing and the following mobile phase: methanol/water [45: 55, v/v] with 0.025% added didecyltrimethylammonium lactate, which significantly affects retention, shortening analysis time and having a positive impact on the symmetry of resulting chromatographic peaks. The method shows linearity between 2.5 and 100 microg/mL, high repeatability [0.39 and 0.42% for diosmin and hesperidin, respectively] and accuracy of 96 to 102% for both the assayed compounds. Intraday and interday precision of the new method were less than RSD% 1, 2. The limit of detection of the assayed compounds is 2.5 and 1.2 microg/mL for diosmin and hesperidin respectively. The method was tested on several pharmaceutical products available in Poland.

## Ear

### **abnormalities**

### **The outcome of combined conchal excision, concho-scaphal sutures and concho-mastoid sutures techniques for treatment of prominent ears.**

Mustafa, Sabir Osman

Hawler Medical University - College of Medicine - Department of Surgery

**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 480-480

**Keywords:** Ear Diseases; Sutures; Disease Management; Retrospective Studies; Ear-surgery

**Abstract:** Background: Prominent ear is one of the most common congenital deformities of the head and neck region. It can affect the aesthetics and psychosocial aspects of patients. There are over 170 techniques described in the literatures, but many do not adequately address the specific problem and can prove unstable. Technique selection in otoplasty should be done only after careful analysis of the abnormal anatomy responsible for the protruding ear deformity. Objective: To evaluate the outcome of combined conchal excision, concho-scaphal sutures, and concho-mastoid sutures techniques for treatment of prominent ear. Patients and methods: A retrospective study was performed on 38 patients, from February 2009 to September 2014. All patients who had prominent ear were included in this study, except those who had constricted ear and secondary otoplasty. A combined method of conchal excision, concho-scaphal suture, and conchomastoid suture technique was used for correction of prominent ear. The follow-up period was 6 -19 months [mean, 14 months]. Data were entered and analyzed using the statistical package for social sciences SPSS version [18]. Results: In 38 patients who underwent otoplasty for prominent ear [24 were males and 14 were female], this technique of combined method used for all patients who had underdevelopment of antihelix and

conchal hypertrophy. This technique allowed for correction of prominent ears to achieve a natural appearance. It achieved good to excellent symmetry in 95% of the patients and a low rate of complications. There were no major complication like skin necrosis or infection, but one patient develops small hematoma, another patient develops suture granuloma and extrusion and one patient had mild telephone deformity. Conclusion: This Technique is simple, versatile and applicable to all age groups, as well as its easy, safe and less recurrence rate with fewer complications and excellent long-term aesthetic outcomes.

## Ebstein Anomaly

### **Diabetic ketoacidosis with Ebstein's anomaly in an adult.**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 225-226

**Keywords:** Diabetic Ketoacidosis; Heart Defects, Congenital

**Abstract:** Ebstein's anomaly is a rare form of congenital malformation of the heart, characterized by apical displacement of the septal and posterior tricuspid valve leaflets, leading to atrialisation of the right ventricle with a variable degree of malformation and displacement of the anterior leaflet. It may not be detected until late in adolescence or adulthood. The clinical manifestations of Ebstein's anomaly vary greatly. We are reporting a case of 35-year male who presented with generalized fatigue, palpitation and effort intolerance. Laboratory investigations confirmed the diagnosis of diabetes ketosis. Transthoracic echocardiography showed severe Ebstein's anomaly with severe tricuspid regurgitation, no residual atrial septal defect, but with severe right ventricular dysfunction. Though only few studies showed the high prevalence of abnormal glucose metabolism in young adult patients with complex congenital heart disease, but Epstein's anomaly with diabetes ketosis was nowhere mentioned.

## Echinococcosis, Hepatic

### **surgery**

#### **Laparoscopic treatment of hydatid cyst of liver: local experience.**

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**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 468-473

**Keywords:** Echinococcosis; Laparoscopy

**Abstract:** Background: Hydatid cyst disease remains a real health problem in many parts of the world. Surgery remains the mainstay of treatment of liver hydatid disease. Laparoscopic hydatid surgery [LHS] is gaining acceptance all over the world with promising early results. Objective: To present our experience of laparoscopic management of liver hydatid disease in our locality. Patients and Methods: All patients presented with liver hydatid disease to our department in Al-Jumhuri Teaching Hospital were planned to undergo laparoscopic hydatid surgery [LHS]. The diagnosis was made by abdominal ultrasonography and/or computed tomography. Surgical treatment was decided for cysts larger than 4 cm. Exclusions from laparoscopic intervention were for patients with; multiple cysts [ $>3$  cysts], complicated cysts, cysts at risky site, recurrent hydatid, and those who refused the laparoscopic approach. Results: From Sep 2001 to Jan 2013, 70 patients with hydatid liver disease were presented for surgical treatment. LHS was performed in 46 patients; 15 were males and 31 were females. Their mean age was 35 years [SD +/- 14]. In 31 cases the cysts were in the right lobe, in 5 cases were in the left lobe and in 8 cases were in both lobes of liver. In one patient, there were 2 cysts in liver and one cyst in spleen. In 9 patients [19%] the operation was converted to open surgery. The mean operative time was 75 minutes [range, 40 - 120 minutes]. The mean length of hospital stay was 3 days [range, 3-8 days]. Pus collection in the residual cavity was occurred in two patients, who were managed by laparotomy and drainage. Recurrence was detected in one patient 10 years after the LHS [2.3%]. There was no mortality. Conclusion: This study highlighted that laparoscopic approach for hepatic hydatid surgery is a safe and effective method in selected patients.

## Eczema

### diagnosis

#### **Eczema; frequency of different types in a tertiary care hospital.**

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 60-64

**Keywords:** Eczema-epidemiology; Cross-Sectional Studies; Prospective Studies; Tertiary Care Centers.

**Abstract:** Objectives: To determine the frequency of different types of eczema in patients presenting in a tertiary care hospital. Study Design: Cross sectional descriptive type of study. Setting: Hamdard University Hospital Karachi. Period: January 2013 till December 2013. Patients and Methods: All new cases of any type of eczema were registered by nonprobability convenient sampling. Total 192 patients of both genders and all ages were enrolled after taking informed consent. Diagnosis was made on detailed history and clinical examination by consultant dermatologist. All specific and relevant investigations were done according to requirement. Patients were divided in two groups, exogenous eczema and endogenous eczema, for convenience. Data was analyzed by the latest version of SPSS. Results: There were 192 patients, out of which 52.08% were males and 47.91% females. Out of the total presented patients 50% had endogenous eczema, 43.37% had exogenous eczema and 25.62% had unspecified eczema. In endogenous group 11.45% had hand dermatitis followed by seborrheic dermatitis, atopic dermatitis and asteatotic eczema in descending frequency of presentation. Pityriasis alba, discoid eczema and pompholyx were seen less frequent. In exogenous eczema allergic contact dermatitis was seen in 14.06% patients, while irritant contact dermatitis in 11.45% patients. Infective eczema and photo-allergic eczema were seen in small number of patients. Conclusion: It was found in this study that allergic contact dermatitis was most common type of eczema followed by other types. Whatever the type is, eczema can be treated, symptoms can be relieved and recurrences can be prevented by appropriate therapy. All types of eczema affect patient's quality of life adversely. However, they can be prevented by educating patients and their relatives to take adequate safety measures like using good quality emollients prophylactically.

## Endometrial Neoplasms

### diagnosis

#### **Benefit and limitation of multi detector computed tomography in local staging of endometrial carcinoma.**

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Al-Azhar University - Faculty of Medicine for Girls - Radiodiagnosis Department

**Assiut Medical Journal** 2015; 39 (3): 209-216

**Keywords:** Tomography; Prospective Studies; Multidetector Computed Tomography; Neoplasm Staging

**Abstract:** Objective: To evaluate the role of multidetector computed tomography MDCT in the local staging of endometrial carcinoma. Patients and Methods: Twenty five women with endometrial carcinoma were prospectively examined with MDCT scanning of abdomen and pelvis after intravenous administration of iodinated contrast media and the results were correlated with that of histopathology. Result: MDCT had a good accuracy in local staging of endometrial carcinoma in relation to myometrial infiltration and cervical invasion. Conclusion: While MDCT is an accurate tool for local staging of endometrial carcinoma and it determines whether the case is operable or not, yet MRI with high soft tissue resolution should be preserved for selected cases.

## Endoscopic Ultrasound-Guided Fine Needle Aspiration

#### **Role of endoscopic ultrasound [EUS] and EUS-guided-fine needle aspiration in diagnosis of mediastinal and abdominal lymphadenopathy.**

Okasha, Hussein Hassan; Abdel Rahman, Mohammed El Tahir; Hassan, Waleed Attia; Mekky, Mohamed Abdel Sabour

Assiut University - Faculty of Medicine - Department of Tropical Medicine and Gastroenterology

**Assiut Medical Journal** 2015; 39 (3): 251-258

**Keywords:** Endoscopy; Lymph Nodes; Lymphatic Diseases; Mediastinal Diseases; Prospective Studies; Mediastinum; Abdomen

**Abstract:** Background and aim: Endoscopic ultrasound [EUS] and the subsequent EUS-guided fine needle aspirate [EUS-FNA] represent a major breakthrough in interventional methods especially for sampling suspicious-appearing lymph nodes. Therefore, we aimed to evaluate the diagnostic yield EUS-FNA in setting of a given abdominal and/or mediastinal lymph nodes. Also, to detect the echo- features that may predict lymph node malignant potentials. Methods: Between January 2014 and May 2015, all consecutive patients with intra-abdominal and/or mediastinal lymphadenopathy were enrolled. EUS-FNA was carried out and the aspirate then sent for cytological and histological studies and Immune stains [IHC]. EUS-FNA results were categorized into benign or malignant. The gold- standards for final diagnosis were the postoperative pathological results or the follow-up course. Results: during the period of the study, a total of 86 patients [50 males, mean age 57.62 +/- 8.47] were enrolled. No major complications were reported. The main proven final diagnoses of the LNs were pancreatic cancer [34.88%, n=30], and cholangiocarcinoma [12.8%, n=11] and 75.6% [n=65] were malignant. The sensitivity, specificity, and accuracy rates of EUS-FNA were 95.38%, 100%, and 95.5%, respectively [No false positive cases]. The multivariate Binary logistic regression revealed that only the echo-texture [odds ratio 29.8; P=0.003] and short axis diameter of the lymph nodes [odds ratio 1.6; P=0.025] are the most predictors of malignant potentiality. Conclusions: EUS-FNA is an accurate and safe method for diagnosis of abdominal and mediastinal lymphadenopathy.

## Esophageal Achalasia

### **Assessment of pneumatic balloon dilation in patients with symptomatic relapse after failed Heller myotomy: a single center experience.**

Amani, Mohammad; Fazlollahi, Narges; Shirani, Shapour; Malekzadeh, Reza; Mikaeli, Javad  
Tehran University of Medical Sciences - Shariati Hospital

**Middle East Journal of Digestive Diseases** 2016; 8 (1): 57-62

**Keywords:** Angioplasty, Balloon, Coronary; Recurrence; Safety; Retrospective Studies

**Abstract:** Background: Although Heller myotomy is one of the most effective treatments for achalasia, it may be associated with early or late symptom relapse in some patients. Therefore, additional treatment is required to achieve better control of symptoms. Aim: To evaluate the safety and efficacy of pneumatic balloon dilation [PBD] in patients with symptom relapse after Heller myotomy. Methods: Thirty six post-myotomy patients were evaluated from 1993 to 2013. Six patients were excluded from the analysis because of comorbid diseases or epiphrenic diverticula. Thirty patients were treated with PBD. Primary outcome was defined as a decrease in symptom score to 4 or less and a reduction greater than 80% from the baseline in the volume of barium in timed barium esophagogram in 6 weeks. Achalasia symptom score [ASS] was assessed at 1.5, 3, 6, and 12 months after treatment and then every six months in all patients and PBD was repeated in case of symptom relapse [ASS>4]. Results: The mean age of the patients was 45.5 +/- 13.9 years [range: 21-73]. Primary outcome was observed in 25 patients [83%]. The mean ASS of the patients dropped from 7.8 before treatment to 1.3 +/- 2.0 at 1.5 months after treatment [p=0.0001]. The mean volume and height of barium decreased from 43.1 +/- 33.4 and 7.1 +/- 4.7 to 6.0 +/- 17.1 and 1.1 +/- 2.2, respectively [p=0.003, p=0.003]. The mean duration of follow-up was 11.8 +/- 6.3 years. At the end of the study, 21 patients [70%] reported sustained good response. No major complications such as perforation or gross bleeding were seen. Conclusion: PBD is an effective and safe treatment option for achalasia in patients with symptom relapse after Heller myotomy.

## Eye Abnormalities

### **Peeling the persistent pupillary membrane.**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 242-242

**Keywords:** Vision, Ocular

## Fasting

### physiology

#### **Effect of Ramadan fasting on glucose level, lipid profile, HbA1c and uric acid among medical students in Karachi, Pakistan.**

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**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (4): 274-279

**Keywords:** Students, Medical; Exercise-physiology; Blood Pressure-physiology; Blood Glucose. Hemoglobin A, Glycosylated; Uric Acid-blood; Lipids-blood; Surveys and Questionnaires

**Abstract:** To assess the effect of Ramadan fasting on blood pressure, fasting glucose, lipid profile, uric acid, HbA1c, body mass index, body adiposity index and visceral adiposity index among fasting medical students, 35 students were recorded before, during and after Ramadan [August] 2011, for their blood pressure, anthropometric measurements, questionnaire response and blood sample. A blood sample was taken at each visit for glucose, lipid profile and HbA1c. Total physical activity, weight-to-height ratio, body adiposity index and visceral adiposity index were calculated for insulin sensitivity. Changes in anthropometric measurements were not statistically significant. However, physical activities increased significantly after Ramadan. Changes in blood pressure, fasting blood sugar, total cholesterol, HbA1c, uric acid and triglyceride were not statistically significant. Mean high density lipoprotein decreased significantly in Ramadan, while low density lipoprotein increased significantly.

## Fetal Membranes, Premature Rupture

### diagnosis

#### **Diagnosis of premature rupture of fetal membranes by identification of vaginal fluid urea and creatinine.**

Al Bayati, Maha Mohammed; Al Izzi, Fadia Jassim; Abdel Lateef, Rihab

Al-Mustanserya University - College of Medicine

**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 537-542

**Keywords:** Amniotic Fluid; Urea; Creatinine; Pregnant Women; Ultrasonography

**Abstract:** Background: Premature rupture of fetal membrane is one of the most common and controversial problem facing the obstetric clinician. Its Correct diagnosis has great importance because failure of diagnosis can lead to unwanted obstetric complications or over diagnosis can lead to unnecessary intervention. Objective: To evaluate the reliability of vaginal fluid urea and creatinine for the diagnosis of premature rupture of membrane. Patients and Methods: This study had been conducted in AL-Yarmouk Teaching Hospital, Department of Obstetrics and Gynecology. In this study, 105 pregnant women presented between 24-41 weeks of gestation were included, three groups were considered in this cohort, thirty five pregnant women with confirmed premature rupture of membrane [group A], thirty five pregnant women with suspected premature rupture of membranes[group B],and thirty five healthy pregnant women considered as control group [group C]. All patients underwent speculum examination for amniotic fluid pooling, nitrazine paper test, measurement of urea and creatinine in vaginal wash fluid sample, ultrasonographic examination for gestational age determination and amniotic fluid index calculation, and then the patients were followed up until delivery. Result: There was significant differences in the mean vaginal wash fluid urea and creatinine concentrations among the three groups [P < 0.001], being higher in group A than the other two groups. The gestational age at delivery and time interval between sampling and delivery was significantly shorter among patients in group A than group B and group C. Conclusion: Vaginal wash fluid urea and creatinine determination for the diagnosis of premature rupture of membrane in our study reported a comparable result in the sensitivity and specificity to other worldwide results.



## Finasteride

### therapeutic uses

#### **The effect of two weeks preoperative finasteride therapy in reducing prostate vascularity.**

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Shifa International Hospital - Department of Urology and Kidney Transplant

**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 213-215

**Keywords:** Transurethral Resection of Prostate; Microvessels; Prostatic Hyperplasia; Vascular Endothelial Growth Factors

**Abstract:** Objective: To determine the effect of two weeks preoperative finasteride therapy in reducing prostate vascularity in terms of mean microvessel density [MVD] and expression of VEGF in prostate urothelium among patients of BPH by comparing with controls. Study Design: Randomized controlled trial. Place and Duration of Study: Shifa International Hospital, Islamabad, from January 2013 to January 2014. Methodology: A total of 80 patients of Benign Prostatic Hyperplasia [BPH] planned for Trans-Urethral Resection of Prostate [TURP] having prostate size of more than 40 grams on trans-abdominal ultrasonography was randomized into two groups, each group having 40 patients. The finasteride group [Group A] was prescribed oral 5 mg of finasteride daily for 2 weeks before surgery. The control group [Group B] did not receive any agent. After 2 weeks, TURP was performed and prostate samples were sent for histopathological determination of MVD and expression of VEGF. Results: The mean age of patients was 66.21 +/- 10.08 years, ranging from 48 to 86 years. The mean prostate gland size was comparable in both groups [55 +/- 10.7 vs. 58.1 +/- 10.8 grams, p=0.21]. Mean MVD in finasteride group [20.25 +/- 10.3] was significantly lower as compared to control group [48.9 +/- 22.6, p < 0.001]. Similarly expression of VEGF was also significantly lower in finasteride group [30%] as compared to control group [65%] [p= 0.0017]. Mean MVD had a significant weak correlation with the size of prostate gland on Pearson correlation test [2-tailed] with r = 0.222. Conclusion: Finasteride reduces microvessel density and hence prostate vascularity with only 2-week therapy and the mean MVD is clearly correlated with size of prostate.

## Food

#### **Medicinal food products; a new approach from ordinary foods to medicine.**

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 1-2

**Keywords:** Medicine; Delivery of Health Care

## Galactans

#### **Development of pH sensitive nanoparticles for intestinal drug delivery using chemically modified guar gum co-polymer.**

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 83-94

**Keywords:** Mannans; Plant Gums; Nanoparticles; Hydrogen-Ion Concentration; Drug Delivery Systems; Acrylic Resins; Esomeprazole

**Abstract:** The aim of the research work was to chemically modify guar gum[GG] as a pH sensitive co-polymer and formulating intestinal targeting ESO nanoparticles [NPs] using the synthesized co-polymer. Poly acrylamide-grafted-guar gum [PAAm-g-GG] co-polymer was synthesized by free radical polymerization. Chemical modification of PAAm-g-GG by alkaline hydrolysis results in formation of a pH-sensitive co-polymer. The effect of GG and acryl amide [AAm] on grafting was studied. Esomeprazole magnesium [ESO] loaded pH sensitive NPs were prepared by nano-emulsification polymer crosslinking method and characterized. Sixteen formulations were prepared and the concentration of process variables was varied to obtain nanoparticles of 200-600nm. The NPs were found to be homogenous in size distribution. The encapsulation efficiency and drug loading ranged from 33.2% to 50.1% and

12.2% to 17.2% respectively. Particle size, encapsulation efficiency and drug loading increased along with co-polymer concentration. In-vitro release studies at pH 1.2 for 2 h, followed by pH 6.8 showed that environment pH significantly affected the drug release. SEM has shown that NPs are spherical with smooth surface. The pH sensitive PAAM-g-GGNPs resisted the initial release of the drug from the drug loaded NPs in acidic pH and delayed the release process to a longer period in alkaline environment.

## Gamma Rays

### **Rheological properties of blood serum of rats after irradiation with different gamma radiation doses in vivo.**

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**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 351-355

**Keywords:** Serum-radiation effects; Rats, Wistar; Blood-radiation effects; Rheology

**Abstract:** The blood serum rheological properties open the door to find suitable radio-protectors and convenient therapy for many cases of radiation exposure. The present study aimed to investigate the rheological properties of rat blood serum at wide range of shear rates after whole body irradiation with different gamma radiation doses in vivo. Healthy male rats were divided into five groups; one control group and 4 irradiated groups. The irradiation process was carried out using Co60 source with dose rate of 0.883cG/sec. Several rheological parameters were measured using Brookfield LVDV-III Programmable rheometer. A significant increase in viscosity and shear stress was observed with 25 and 50Gy corresponding to each shear rate compared with the control; while a significant decrease observed with 75 and 100Gy. The viscosity exhibited a Non-Newtonian behaviour with the shear rate while shear stress values were linearly related with shear rate. The decrease in blood viscosity might be attributed to changes in molecular weight, pH sensitivity and protein structure. The changes in rheological properties of irradiated rats' blood serum might be attributed to destruction changes in the haematological and dimensional properties of rats' blood products.

## Gastrectomy

### **Early laparoscopic sleeve gastrectomy outcomes in terms of weight loss.**

Siddiq, Ghulam; Aziz, Waqas; Bin Pervez, Muhammad; Haider, Muhammad Ijlal; Hussain, Syed Vaqar; Khan, Nasir.

Shifa International Hospital - Department of Surgery

**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 169-172

**Keywords:** Laparoscopy; Weight Loss; Retrospective Studies; Body Mass Index; Obesity

**Abstract:** Objective: To investigate the outcomes of laparoscopic sleeve gastrectomy [LSG] in terms of weight loss. Study Design: Descriptive cohort study. Place and Duration of Study: Department of Surgery, Shifa International Hospital, Islamabad, from January 2009 to January 2015. Methodology: A total of 100 consecutive patients were included in the study through retrospective chart review. A 5-port technique was utilized with the gastric sleeve being created using endostapler. Postoperatively, patients gradually progressed from clear liquid diet and oral rehydration salts to nutritional supplements over three days. By two weeks postoperatively, patients had progressed to a solid diet. SPSS was used for data entry and analysis. Body mass index [BMI] and weight in kg were determined. Results: From 100 patients, 17 were lost to follow-up less than a week into the postoperative period. Of the remaining, average age of the patients was 34.7 +/- 11.3 years at the time of surgery. The majority of patients were females [72%]. Mean preoperative and postoperative BMI was 45.3 +/- 10.4 kg/m<sup>2</sup> and 35.0 +/- 10 kg/m<sup>2</sup>, respectively. Of the 83 patients, 62 were followed-up for longer than 1 month [average 419 days]. For patients in this category, mean reduction in BMI was 10.3 +/- 6.5 kg/m<sup>2</sup> with average weight loss of 34.3 +/- 18.2 kg. There were no mortalities associated with LSG. Conclusion: Laparoscopic sleeve gastrectomy is a safe and effective intervention in young Pakistani females with encouraging outcomes at a mean follow-up of over one year.

## Genista

### **Comparative polyphenolic content and antioxidant activities of *Genista tinctoria* L. and *Genistella sagittalis* [L.] Gams [fabaceae]**

Hanganu, Daniela; Olah, Neli Kinga; Benedec, Daniela; Mocan, Andrei; Crisan, Gianina; Vlase, Laurian; Popica, Iulia; Oniga, Iliora

Iuliu Hatieganu - University of Medicine and Pharmacy - Department of Pharmacognosy

**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 301-307

**Keywords:** Antioxidants; Polyphenols; Free Radical Scavengers; Plant Extracts; Plants, Medicinal; Fabaceae

**Abstract:** The aim of this study was focused on the polyphenolic composition and antioxidant capacity of *Genista tinctoria* L. and *Genistella sagittalis* [L.] Gams. A qualitative and quantitative characterization of the main phenolic compounds from the extracts were carried out using a HPLC-MS method. The total polyphenolic and flavonoid content was spectrophotometrically determined. The antioxidant activity towards various radicals generated in different systems was evaluated using DPPH bleaching method, Trolox equivalent antioxidant capacity assay [TEAC] and Oxygen radical absorbance capacity [ORAC], and all indicated that *G. tinctoria* extract was more antioxidant than *G. sagittalis* extract. That was in good agreement with the total polyphenolic and flavonoid content. Chlorogenic acid, p-coumaric acid, isoquercitrin and apigenin were identified in both species. Caffeic acid, ferulic acid, hyperoside, rutin, quercitrin and luteolin were found only in *G. tinctoria*, while quercetin was determined in *G. sagittalis*.

## Glomerulonephritis

### **Mayo clinic/renal pathology society consensus classification of glomerulonephritides: a giant leap in right direction.**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 167-168

**Keywords:** Consensus; Biopsy; Kidney-pathology

## Glycerides

### pharmacology

### **The effect of neem [*Azadirachta indica* A. Juss] thevetia [*thevetia peruviana* [Pers.] K. Schum.] extracts inhibition of fungi growth causing cotton root-rot disease.**

Al Maisary, Mohammed Fadhl

University of Aden - Faculty of Science and Education - Department Biology

**Assiut University Bulletin for Environmental Researches** 2015; 18 (2): 65-72

**Keywords:** Terpenes-pharmacology; Plant Oils; Thevetia; Azadirachta; Fungi; Rhizoctonia

**Abstract:** The present showed the effect of Neem and Thevetia extract on growth of *R. solani*. The Study Neem and Thevetia oil seed inhibited the growth of *R. solani* percentage of inhibition. Data indicated that the inhibition percentage of oil seed for the Neem was 79.3% and for Thevetia it was 75.2%. Ethanolic extract of leaves of Neem and Thevetia showed higher activity on the growth of *R. solani* at higher concentration. Applying ethanolic extract of the leaves of the Neem and Thevetia, revealed that the inhibition of the extract of leaves on the Neem was markedly higher than of Thevetia [68.9% versus 48.9%].

## Glycoproteins

### **CD133 expression in patients with peripheral neuroblastic tumor: a systematic review.**

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**Reviews in Clinical Medicine [RCM]** 2015; 2 (4): 164-167

**Keywords:** Peptides; Antigens, CD; Neuroblastoma; Neoplastic Stem Cells; Response Evaluation Criteria in Solid Tumors

**Abstract:** Introduction: Neuroblastoma is known as one of the most common solid tumors in children, which is recently under the investigation for the expression of CD133, a marker of cancer stem cells. Revealing the prognostic value of CD133 marker expression is important in predicting the outcome and survival of neuroblastoma patients. In this systematic review, we aimed to review the studies on association between CD133 expression and other peripheral neuroblastic tumor prognostic factors. Methods: PubMed was searched for the relevant articles. No time and language limitation were included in our search strategy. Data regarding the patients' number and age, tumor stage, histology and CD133 expression were extracted. Results: Overall, only 4 relevant articles were retrieved. One articles revealed the positive association between CD133 expression in neuroblastoma samples and its resistance to chemotherapy treatment. Three of the included articles showed the positive relation between CD133 expression rate and tumor stage progression. Two of the included studies revealed much worse survival of the neuroblastoma patients with more expression of CD133. Discussion: Based on included studies, CD133 expression is positively related with poor outcome prognosis in patients, more advanced tumor stage, shorter diseasefree survival and overall survival. Conclusion: Although the expression of CD133 has shown increasing trend by advancing the neuroblastoma tumor stage, more studies with larger sample size are needed to accurately reveal the relation.

## Hamelia

### **Antioxidant and hepatoprotective activity of *Hamelia patens* extracts.**

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**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 343-348

**Keywords:** Antioxidants; Plant Extracts; Phytotherapy; Hep G2 Cells

**Abstract:** *Hamelia patens* is widely used in the traditional medicine of Mexico and Central America for the treatment of illnesses associated with inflammatory processes. In this study, antioxidant and hepatoprotective activity were assayed on the methanolic crude [ME], hexane [HE], ethyl acetate [AE], and butanol [BE] extracts of *H. patens*. The total phenolic content [TPC] as mg of gallic acid equivalents per g of dry extract was determined by Folin-Ciocalteu's method [ME=141.58 +/- 11.99, HE=33.96 +/- 1.13, AE=375.18 +/- 13.09, BE=132.08 +/- 3.62], and antioxidant activity by 2,2-diphenyl-1-picryl-hydrazyl [DPPH] free radical-scavenging method [EC50 ME=77.87 +/- 5.67, HE=236.64 +/- 26.32, AE=45.87 +/- 2.24, BE=50.97 +/- 0.85microg/mL]. Hepatoprotective activity was evaluated through AST activity on HepG2 cells subjected to damage with CCl4 [ME=62.5 +/- 3.41, HE=72.25 +/- 2.87, AE=63.50 +/- 4.20, BE=43.74 +/- 4.03]. BE showed the greater hepatoprotective activity and a good antioxidant capacity, while HE did not show hepatoprotective or antioxidant activity. Cytotoxicity was evaluated on Vero cells cultures; none showed significant toxicity.

## Health Manpower

### **A strategic framework for health workforce development in the Eastern Mediterranean Region.**

**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (5): 388-389

**Keywords:** Health Services; World Health Organization; Public Health

## Helicobacter pylori

### **Effects of clarithromycin-containing quadruple therapy on helicobacter pylori eradication after nitroimidazole-containing quadruple therapy failure.**

Fakheri, Hafez; Bakhshi, Zeinab; Bari, Zohreh; Alhoeei, Saman

Mazandaran University of Medical Sciences - Gut and Liver Research Center - Department of Gastroenterology

**Middle East Journal of Digestive Diseases** 2016; 8 (1): 51-56

**Keywords:** Helicobacter Infections-therapy; Clarithromycin-therapeutic uses; Metronidazole-therapeutic uses; Drug Combinations; Surveys and Questionnaires

**Abstract:** Background: Several large clinical trials and meta-analyses have shown about 20% failure to eradicate Helicobacter pylori [*H.pylori*], necessitating investigations for second-line treatments. The aim of this study was to evaluate the effects of clarithromycin-containing quadruple regimen after nitroimidazole-containing quadruple therapy failure. Methods: Thirty two patients who had failed 10-day *H. pylori* treatment with omeprazole, amoxicillin, bismuth subcitrate, and metronidazole [OABM] regimen and 31 patients who had failed 10-day treatment with omeprazole,

amoxicillin, bismuth subcitrate, and furazolidone [OAMF] regimen entered the study. They all received omeprazole [20 mg], amoxicillin [1 gr], bismuth subcitrate [240 mg] and clarithromycin [500 mg] twice a day for 10 days. Eight weeks after treatment, *H. pylori* eradication was assessed by 14C-urea breath test. Results: Totally 61 patients completed the study. According to intention to treat [ITT] analysis, eradication rates by second-line OABC regimen were 84.37% [95% CI= 71.7-96.9%] in OABM group and 77.41% [95% CI= 62.71-92.11%] in OABF. group [p=0.756]. Per-protocol [pp] eradication rates were 87.09% [95% CI= 75.2-98.8%] and 82.75% [95% CI= 79.4-96%], respectively [p=0.638]. Also the cumulative eradication rates by OABC regimen were 80.9% [95% CI= 71.2-90.6%] and 85% [95% CI= 75.9-94%] according to ITT and PP analyses, respectively. Severe side effects were reported in 3.1% of the patients. Conclusion: Regarding ideal eradication rate [ $> 80\%$ ] and very low adverse effects, it seems that clarithromycin-containing quadruple therapy can be an encouraging regimen after nitroimidazole-containing regimen failure.

## Hemangioma, Cavernous

### **Rectal bleeding in a young patient with cavernous hemangioma and bone hypertrophy.**

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Department of Internal Medicine

**Middle East Journal of Digestive Diseases** 2016; 8 (1): 73-74

**Keywords:** Gastrointestinal Hemorrhage; Rectum; Hyperostosis; Ultrasonography; Colonoscopy

## Hemoglobin A, Glycosylated

### **The correlation between the glycated hemoglobin [HbA1c] in nondiabetics and cardiovascular risk factors.**

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**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 315-319

**Keywords:** Cardiovascular Diseases; Risk Factors; Diabetes Mellitus; Cross-Sectional Studies

**Abstract:** This study aimed to discuss the relativity between the glycated hemoglobin [HbA1c] in non-diabetics and cardiovascular risk factors and definite the significance of predicting the cardiovascular risk factors through cross-sectional research method. There were 2007 cases volunteers [including 650 cases of male, 1357 cases of female] from city community with complete information involved in the research of diabetes. The value of HbA1c 6.5% was set as the diagnose boundary of the diabetes. Differences were considered to be statistically significant at  $P < 0.05$ . Hypertension, dyslipidemi, being overweight or obesity, age [male was over 45 years old and female was over 55 years old.], HbA1c 6.0% and fasting blood glucose [FBG] 6.1mmol/L were regarded as cardiovascular risk factors. Then we analyzed the number of risk factors for individuals in different HbA1c groups. Meanwhile, patients were grouped into zero, one, two, three, four or more groups with reference to the number of risk factors they had in order to compare the values of risk factors in different groups through Logistic regression. The results showed that. [1] For those people who had no less than three risk factors, the frequency of risk factors was on the rise with the increase of HbA1c levels. [2] The value of HbA1c in different groups of risk factors rose with the increasing number of risk factors. There was a significant difference [ $P < 0.001$ ] between groups. [3] The Regression analysis showed that there was a stronger correlation between HbA1c levels and impaired glucose tolerance [IGT], fasting blood glucose [FBG] rather than age. So Non -diabetics whose HbA1c levels ranged from 6.0% to 6.5% were at high risk of cardiovascular risk factors. HbA1c levels, which can be a prediction index for cardiovascular risk factors dependent from other cardiovascular risk factors for non-diabetics, and it were highly relevant with impaired glucose tolerance [IGT] and impaired fasting blood glucose [FBG].

## Hepacivirus

### **Experimental induction of hepatitis C virus in Wister albino rat.**

Abd Allah, Mohamed A.E.F.; Hany, Ahmed M.; El Shelly, Mohamd A.; Ismail, Huwida M.; S. El Din, Hoda

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**Assiut Medical Journal** 2015; 39 (3): 67-70

**Keywords:** Rats, Wistar, Hepatitis C

**Abstract:** Ten Wister albino rats were used in this Experiment. 6 animals were injected intra-peritoneally by 0.2 ml of Hepatitis C patients blood, while 4 animals were injected with 0.2 ml of Healthy [non- infected] persons and kept as controls. They were divided into 3 groups. The first group consisting of 2 test animals and one control were slaughtered and autopsied at 2 months of injection. The second group were 2 test animals and one control were autopsied at 4.5 months after being injected. The third group were 2 animals and one control autopsied at 5 months after injection. The postmortem picture in the first group showed diffuse cloudy swelling of the Liver cells with proliferation of Kupffer cells in the portal tracts which is a picture of acute hepatitis. The second group showed marked cloudy swelling of the liver cells with hypertrophy of Kupffer cells in the portal tracts. The liver lobule near the central vein were free of fat. The third group showed chronic hepatitis with marked cloudy swelling parenchymal necrobiosis in the form of Rim pycnosis caryohexis karyopycnosos and finally karyolysis. There were marked perplasia of hepatocytes which in some places produced rounded nodules that lost the radial cord arrangement producing preneoplastic nodules that may be after a time proceed to hepatocellular carcinoma.

## Hepatectomy

### **The feasibility and safety of laparoscopic liver resections.**

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**Assiut Medical Journal** 2015; 39 (3): 89-100

**Keywords:** Liver; Laparoscopy; Safety; Prospective Studies; Carcinoma, Hepatocellular

**Abstract:** Objective: To assess the feasibility and safety of laparoscopic liver resections. Methods: A prospective study of laparoscopic liver resections was undertaken in San Camillo hospital, Rome Italy, Anam hospital, Seoul South Korea and Assiut University Hospitals. in the period from July, 2012 till, August 2014 in patients with preoperative diagnoses including benign lesion, hepatocellular carcinoma with compensated cirrhosis, and metastasis of colorectal and noncolorectal origin, the tumor had to be 5 cm or smaller. Surgical technique included CO<sub>2</sub> pneumoperitoneum and liver transection with a harmonic scalpel, with without portal triad clamping or hepatic vein control. Portal pedicles and large hepatic veins were tied. Resected specimens were placed in a bag and removed through a separate incision, without fragmentation. Results: From July 2012 to August 2014 undertaken in San Camillo hospital, Rome Italy, hospital, Seoul South Korea and Assiut University Hospitals. 80 liver resections were included. Median follow up was 19 months ranging from 6 to 24 months. There were hepatocellular carcinoma [HCC; n=32], colorectal carcinoma liver metastasis [CRCLM; n=19] metastatic neuroendocrine tumor [NET;n=1], non-CRCLM [n=6], intrahepatic cholangiocarcinoma [n=4], lymphomas [n=1] and uncertain preoperative diagnosis [n=1] mostly pseudo inflammatory tumour, Mean tumor size was 3.6 cm. There were three conversions to laparotomy [3. 75%]. There were anatomical liver resection [n=31]. Four major hepatectomies [5%] were performed [3 segments or more], including 1 right hepatectomy and 3 left hepatectomies, 2 of them with caudate lobectomy. Mean blood loss was 129.50 mL. Mean surgical time was 115.36 minutes. There were no deaths. Complications occurred in 4 cases [5%]. Two cirrhotic patients developed postoperative ascites. No port-site metastases were observed in patients with malignant disease. Conclusion: Laparoscopic resections are feasible and safe in selected patients with left-sided and right-peripheral lesions requiring limited resection. Young patients with benign disease clearly benefit from avoiding a major abdominal incision, and cirrhotic patients may have a reduced complication rate. For liver resections, unlike other areas of abdominal surgery, the laparoscopic approach has not been widely developed. The reasons are presumed technical difficulties and the intraoperative hazards of bleeding and gas embolism. Another concern is the potential risk of tumor seeding in patients with malignant disease, who constitute the majority of candidates for liver resections. However, technologic refinements in laparoscopic instruments, experience in laparoscopic and hepatic surgery, and the application of the principles of oncologic surgery have led some groups, to explore the place of laparoscopic liver resections. Initial laparoscopic procedures on the liver included staging of tumors to select patients for open resection [Rahusen F, et al 1999] and treatment of nonparasitic cysts by unroofing. [Morino M, et al 1994] More recently, there have been advancement of laparoscopic liver resections up to living donor hepatectomy for liver transplantation. [Quirino Lai, et al 2012] We initiated a prospective evaluation of laparoscopic liver resections in selected patients, and we report the results in our first 80 patients].

## Hepatitis B

### **Risk factors of hepatitis B virus infection in urban and rural areas of Qena governorate, Upper Egypt.**

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**Assiut Medical Journal** 2015; 39 (3): 9-30

**Keywords:** Hepatitis B virus; Risk Factors; Urban Population; Rural Population; Case-Control Studies; Surveys and Questionnaires

**Abstract:** Background: HBV infection is a significant health problem in Egypt which is categorized as an HB. virus intermediate endemic area, with HB carrier rate ranging from 2%-7%. HBV infection is the 10<sup>th</sup> leading cause of death and HBV related hepatocellular carcinoma is the 5<sup>th</sup> most frequent cancer worldwide. Aims of the study: The present study aims to investigate the most important risk factors for transmission of HBV and HCV in urban and rural areas in Qena Governorate, Egypt. Patients and Methods: A matched case control study was conducted. The study included 600 patients, 100 HBV cases and 500 controls, aged above 20 years and below 70 years. Direct interview was done with each participant separately for filling the questionnaire during the period from January 2013 to January 2014. The collected data were reviewed, entered and statistically analyzed using SPSS version 19. Results: The mean age of cases and controls were 38.83 +/- [12.62] and 44.26 +/- [11.68] years respectively. Multivariate analysis shows that odds ratio of HBV infection is significantly higher among cases with some risk factors: injection by reused needle, sharing razors with others, dental procedures or oral surgery, blood transfusion and intravenous infusion and/or injection. Conclusion and Recommendations: The common risk factors exposures of hepatitis B infection included blood transfusion, dealing with patient blood, hospital admission, surgery, accidental stick with a blood contaminated needle, intravenous catheterization and dental procedures. There are statistically significant differences between HBV cases and their controls in the majority of these risk factors. The presence of these risk factors emphasizes the need for increasing the uptake of HB vaccine. Health care providers, health educators, and other community-based organizations must play an active role in counseling high-risk people.

## epidemiology

### **Epidemiological profile of hepatitis B virus infection in Iran in the past 25 years; a systematic review and meta-analysis of general population studies.**

Mohammadi, Zahra; Keshkar, Abbasali; Eghtesad, Sareh; Jeddian, Alireza; Pourfatholah, Ali Akbar; Maghsudlu, Mahtab; Zadsar, Maryam; Mahmoudi, Zahra; Shayanrad, Amaneh; Poustchi, Hossein; Malekzadeh, Reza

Tehran University of Medical Sciences - Liver and Pancreatobiliary Diseases Research Center

**Middle East Journal of Digestive Diseases** 2016; 8 (1): 5-18

**Keywords:** Prevalence; Mortality; Population

**Abstract:** Background: Chronic hepatitis B virus [HBV] infection is one of the most important health problems worldwide with a high rate of morbidity and mortality. It is a major risk factor for cirrhosis and liver cancer. Currently, Iran is located in the intermediate HBV zone; however, recent studies have provided some evidence indicating an epidemiological change in the country. The aim of this study was to estimate the prevalence of HBV in Iran. Methods: A systematic review was conducted to evaluate the studies performed in the past 25 years that have reported the prevalence of HBV infection and its associated factors in the Iranian general population [1990-2014]. Any study assessing and reporting serum Hbs Ag levels was included in this review. Results: After excluding all impertinent studies, 19 eligible studies were included in the analysis. The overall prevalence of HBV was 3% [95% CI 2% to 3%]. Its distribution showed that the prevalence of HBV varies in different provinces from 0.87% to 8.86%. The HBV rate was highest in the Golestan [8.86%] and lowest in the Kurdistan [0.87%] provinces. Conclusion: This study provides some evidence about the prevalence of HBV in Iran. However, the collected data was very heterogenic, even within a single province, which made it hard to estimate a single-point prevalence. High quality studies are needed to find reliable information about HBV prevalence and to decrease the heterogeneity of results in the country.

### **Hepatitis B and C; prevalence in south Punjab population.**

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 25-28

**Keywords:** Hepatitis C-epidemiology; Cross-Sectional Studies; Prevalence; Hepatitis, Viral, Human; Vaccination

**Abstract:** Background: Pakistan is a developing country of 180 million people with low health and educational standards. According to the Human Development Index of the United Nations, it is ranked 146[th] out of 187 countries. Objective: To know the actual disease burden of Chronic Hepatitis Viruses B and C in Southern Punjab. Study Design: Cross-sectional, Observational study. Setting: Ibn-e-Sina Hospital and Research Centre. Period: March 2010 to February 2014. Methodology: A total of 26800 people from general population were included in the present study. Free vaccination camps were established in rural and urban union councils with the help of local politicians, in Schools, Madrassahs and Industrial units and a permanent camp was established in Ibn-e-Sina Hospital. People of all age groups and either sex were vaccinated. Results: A total of 26800 individuals were screened, [mean: 36.47 +/- 13.81]. 2090 [7.8%] tested positive for Anti-HCV. Among these 68.6% [n=1433] were males while 31.4% [n=657] were females. 616 [2.3%] tested positive for HBsAg of which 401 [65.2%] were male and 215 [34.8%] were female. 75 subjects [0.28%] were positive for both HBsAg and Anti-HCV. Conclusion: We as a community need to be more vigilant as the disease burden of HBsAg is not decreasing in the general population and the Burden of Anti-HCV is one of the highest in the world.

### **Occult hepatitis B infection in Egyptian health care workers.**

Elmaghloub, Reem; Elbahrawy, Ashraf; El Didamony, Gamal; Hashim, Alaa; Morsy, Mohamed H.; Hantour, Osamah; Hantour, Abdelateef; Abdelbaseer, Mohamed

Al Zagazig University - Faculty of Science - Department of Botany and Microbiology

**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (5): 329-334

**Keywords:** Hepatitis B virus-pathogenicity; Polymerase Chain Reaction; Hepatitis C. Antibodies-immunology; Hepatitis C-diagnosis; Hepatitis B Vaccines-therapeutic use; Cross-Sectional Studies

**Abstract:** We tested the frequency of occult hepatitis B infection [OBI] among Egyptian healthcare workers [HCWs]. We tested 132 HCWs for hepatitis B virus [HBV] DNA by nested polymerase chain reaction [PCR], and hepatitis C virus antibody [anti-HCV] by ELISA. HCV RNA was measured by nested PCR in anti-HCV-positive HCWs. HBV-DNA-positive HCWs were subjected to HBV genotyping. We included 132 HCWs who were negative for hepatitis B surface antigen and positive for hepatitis B core antibody [anti-HBc]. OBI was detected in 7 male HCWs, and HBV E genotype was detected in 3, HBV D in 2 and HBV D and E in 2. Two OBI-positive HCWs had a history of neonatal hepatitis B vaccination. Anti-HCV seropositivity was detected in 17 HCWs who were positive for anti-HBc; 15 of whom were positive for HCV RNA by nested PCR. HCV infection was confirmed by anti-HCV and HCV RNA in 1 of 7 HCWs with OBI. In conclusion, Egyptian HCWs have a significant rate of OBI and HBV E genotype is prevalent.

## Hepatitis C

### **virology**

### **Correlation between hepatitis C viral load and hepatitis C Core antigenaemia among Egyptians.**

Kotb, Dalia N.; Esmail, Mona A.; Abdelwahab, Sayed F.; Abdel Hamid, Mohamed

Minia University - Faculty of Medicine - Department of Microbiology and Immunology

**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (4): 280-286

**Keywords:** Hepatitis C-immunology; Hepacivirus-pathogenicity; Hepatitis C Antibodies-immunology; Hepatitis C Antigens-physiology; Polymerase Chain Reaction; RNA, Viral-immunology

**Abstract:** Hepatitis C virus [HCV] infection is widespread in Egypt. This study compared HCV RNA with HCVcAg for the detection and quantification of viraemia among a sample of Egyptians. Sera from 80 suspected HCV-positive individuals were tested simultaneously for HCV-RNA load using real-time polymerase chain reaction [PCR] and HCVcAg level using ELISA. Of the 80 samples, 25% were HCV-RNA-negative. HCVcAg was detected in all samples: range 0.4-2462 ng/mL, mean 460 [SD 506] ng/mL. The sensitivity and specificity of HCVcAg were 96.7% and 90.9%, respectively. There was a significant correlation between serum HCV-RNA and HCVcAg levels [ $r = 0.4$ ,  $P < 0.0001$ ]. HCV-RNA remains the gold standard for diagnosis of active HCV infection but HCVcAg can be used where PCR is not available.

## Hepatitis C, Chronic

### **Chronic hepatitis C; "APRI score a noninvasive marker, its predictive value for determination of hepatic fibrosis and liver cirrhosis at tertiary care hospital Hyderabad/ Jamshoro".**

Rind, Muhammad Salim; Shah, Muhammad Iqbal; Suthar, Ramesh Kumar; Jahangir, Syed

**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 50-55



**Keywords:** Liver Cirrhosis; Tertiary Care Centers; Cross-Sectional Studies; Biopsy

**Abstract:** The major causative factor of hepatic cirrhosis and its complications in chronic hepatitis C is due to presence of liver fibrosis. To assess prognosis and management related decisions, the exact staging of liver fibrosis is of greatest importance. Now, liver biopsy is the inexact gold standard for this purpose. APRI or AST to platelet ratio Index is the best noninvasive marker which can predict presence of fibrosis in majority of chronic hepatitis C patients without the need of biopsy. It is also cost effective and only depends on routine testing [Platelet count and serum AST]. Objectives: To determine the positive predictive value of APRI Score for the prediction of fibrosis and cirrhosis in chronic hepatitis C patients. Study design: Cross sectional study. Setting: Medical wards and Out Patient Medicine Department of Liaquat University Hospital Hyderabad / Jamshoro. Period: 6 months. Methodology: A total of 51 patients of either gender, age >14 years presenting to Medical wards and OPD for the evaluation of chronic hepatitis were enrolled in this research study after giving preference and avoiding criteria. Clinical data was collected at the time of liver biopsy and blood samples for liver function tests, blood glucose and complete blood picture with platelet count were collected before the biopsy [only AST and platelet count are needed for APRI score] a core biopsy needle of 14 gauge was used and the procedure was conducted under ultrasound guidance. Fibrosis stage was determined according to the METAVIR group scoring system. The patients were examined in a very comfortable manner and all the information collected from the patients was kept confidential and entered in the predesigned proforma. Results: A total of 51 patients were selected for this study. Out of these 31 [60.78%] were male and 20[39.22%] were female. The mean age was 42.53 years [+/- 11.2 SD]. The positive predictive value for APRI score between 0.5 to 1.0 was 58.82% whereas the positive predictive values for APRI score 1.1-1.5 was 70.58%. Conclusion: The positive predictive values of APRI score in the ranges of 0.5 to 1.5 were not indicative of the presence of significant liver fibrosis in this research study. However, additional data are required to authenticate or disprove the usefulness of APRI score for the prediction of significant hepatic fibrosis in chronic hepatitis C patients.

### **Evaluation of heat shock protein70 expression in liver biopsies of chronic hepatitis C Egyptian patients.**

Ahmed, Asmaa Mahmoud; Gamal, Yasser; Hassan, Howayda Ismail; Omar, Abdel Hady Mohammed  
Assiut University - Faculty of Medicine - Department of Pathology

**Assiut Medical Journal** 2015; 39 (3): 1-8

**Keywords:** Heat-Shock Proteins; Biopsy; Liver

**Abstract:** Background/Aim: Heat shock protein 70 [HSP70] is a member of heat shock protein family It has strong cytoprotective properties that prevent cell death triggered by stressful stimuli The aim of this work was to study the immunohistochemical expression of HSP70 in chronic HCV biopsies among Egyptian patients. Methods: Immunohistochemical stain using HSP70 was performed on 30 chronic hepatitis C needle biopsies, with different degrees of disease severity. Results: Positive HSP70 immunoreactivity was detected in 12/30 [40%] of the chronic hepatitis specimens with weak to moderate intensity. No statistically significant difference was detected between the mean of HSP70 expression and the following parameters; age, gender, necroinflammatory grade and stage of fibrosis [p=0.109, p=0.874, p=0.342 and p=0.182] respectively. Conclusion: Detection of HSP70 in chronic hepatitis specimens suggested that chronic inflammation and fibrosis act as stressful conditions which result in induction of HSP70 expression. HSP70 prevents stress induced apoptosis which may enhance viral replication by preserving the viral factory. Therefore, we can suggested that HSP70 may act as a therapeutic target to treat HCV infection by targeting host proteins as opposed to viral proteins to minimize the development of resistance to therapy.

### Hernia, Inguinal

### **Comparative study between open and transabdominal preperitoneal laparoscopic repair of inguinal Hernia in Al Kadhymia teaching hospital.**

Nile, Anees K.; Ahmed, Haider Abdulhussein; Hussein, Ahmed Manea  
Naharini College of Medicine

**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 462-467

**Keywords:** Laparoscopy; Peritoneal Cavity; Herniorrhaphy; Prospective Studies

**Abstract:** Background: Surgical repair of inguinal hernias is a common procedure in adult men. However, recurrence of hernias has been reported to occur after repair in 15 percent or more cases, and postoperative pain and disability are frequent. A laparoscopic method of performing a tension-free repair has subsequently been reported to result in low recurrence rates and to be associated with substantially less pain in the immediate postoperative period and earlier return to normal activities than the open-repair technique. Objective: To compare open versus laparoscopic inguinal hernial repair in different aspects. Patients and Methods: A prospective study done through period of two years [from April 2012 to April 2014] on 89 male patients presenting to general-surgery clinics at Al-Kadhymia teaching hospital who were 18 to 45 years of age, had a diagnosis of inguinal hernia. Results: Postoperative pain was much less common in the laparoscopic group and wound infection was also less in laparoscopic group while recurrence rate was nearly equal in both groups. Conclusion: Laparoscopic inguinal hernial repair is a save and effective operation if it was done by expert laparoscopic surgeon with good patients selection.

## Hip Fractures

### Dynamic hip screw [DHS] evaluation of stable and unstable intertrochanteric fracture of femur fixed.

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 76-80

**Keywords:** Femur; Incidence; Bone Screws

**Abstract:** Objectives: To analyze the comparative results of dynamic DHS fixation in stable and the unstable intertrochanteric fractures at LUH. Study Design: Comparative study. Setting: Orthopedic unit I of LUH Jamshoro. Period: 26[th] May 2010 - 25[th] August 2011. Methodology: All 40 patients with femur intertrochanteric fracture were enlisted. All cases isolated in 2 groups every having 20 patients, group A stable fracture and group B unstable fractures. After complete physical examination, examinations and fracture arrangement evaluation, patients were readied for operation. Fracture table was used in each operation. Fracture reduction was initially attempted by close manipulation and was successful in 30 [75%] cases. Lateral approach for proximal femur was used in every case. All fractures, whether stable or unstable, were reduced anatomically without any type of osteotomy and then fixed with 135o dynamic hip screw. Results: Mean age was 62.8.2 years of the cases. Gender ratio was 3:1. According to mode of injury were found RTA in 21 [70%] patients. Postoperative complications were recorded as; superficial infection noted in 2 [5%] patients and there was no case of deep infection. Average stay of hospital found 16.5 days. in 17 [42.5%] patients belongs to stable group and 06 [15%] patients belong to unstable group. All [n=40] patients were pain free on their discharge from hospital. In all [n=40] patients we achieved union and there was no case of delayed union or non-union. We assessed functional outcome of our patients on the base of Stinchfield Hip Assessment system. According to SHAS 28 [70%] patients were excellent, 05 [12.5%] patients were good, 04 [10%] were fair and 03 [7.5] were poor. We had not found mortality in our patients. Conclusions: According to our conclusion DHS is the best implant for intertrochanteric fracture fixation. No matter; whether fracture is stable, unstable and fresh or old.

## Ilex

### In-vitro evaluation of protective effects on DNA damage and antioxidative activities of Ilex spinigera loes extracts.

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 283-292

**Keywords:** Antioxidants; DNA Damage; Plant Extracts; In Vitro Techniques

**Abstract:** Ilex spinigera [Aquifoliaceae] plant is an evergreen tree or shrub with thick glossy dark green leaves and red fruits. This plant has medicinal properties and has been used traditionally in northern Iran for malaria treatment. The aim of this work is to evaluate the antioxidative activities and the inhibitory effect of I. spinigera on the oxidation of DNA. We have found no reports about the popular use of I. spinigera in terms of its chemistry and biology. In this study we report the antioxidant activity of I. spinigera extracts for the first time. Water, ethanol and methanol were used as extraction solvents. Various experimental models including iron [III] reducing power, total antioxidant capacity, DPPH radical scavenging activity, PAB assay and in vitro inhibition of AAPH-induced oxidation of DNA were used for characterization of antioxidant activity of the extracts. The three extracts showed varying degrees of efficacy in each assay in a dose-dependent manner. The aqueous extract with the highest content of total phenolics, was the most potent antioxidant in all assays except in DPPH assay. The methanol extract with the highest amount of total flavonoids was the potent scavenger of DPPH radical with an IC<sub>50</sub> value of 102.22 ± 0.001 microg/ml. Aqueous extract of I. spinigera also showed the protective effect on DNA damage-induced by AAPH. According to our results, I. spinigera leaves extract have the potential for chemoprotective studies.

## Immunization

### Childhood immunization; awareness among pregnant women in Pakistan.

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 71-75

**Keywords:** Mortality; Pregnant Women; Cross-Sectional Studies; Mother-Child Relations; Knowledge; Awareness; Surveys and Questionnaires; Education

**Abstract:** Introduction: Childhood immunization remains one of the most important ways of preventing outbreaks of deadly diseases. Even with full-fledged active Expanded programme of immunization [EPI] initiated in Pakistan, the percentage of children getting vaccinated remain far below our required levels. Infant mortality in Pakistan is highest among SAARC countries, which at present stands at 70 deaths per 1,000 live births, according to a report compiled by the Society for the Protection of the Rights of the Child [SPARC]. Objective: This study was carried out to assess mother's education, knowledge and level of awareness of childhood immunization among the pregnant women. Study design: Cross sectional descriptive study. Setting: Jinnah Medical and Dental College Karachi in department of community Health sciences [CHS]. Study period: April 2012 to June 2012. Methods: A total number of Four hundred pregnant. [400] women were interviewed in both OPDs and wards of Lady Dufferin Hospital and JMCH Karachi. The questionnaire contained a total of nineteen questions. All of them were self-asked in local language. Results: A significant number of child bearing women [81.5%] had good knowledge and aptitude about childhood immunization and are likely to get their children vaccinated. Conclusion: The higher the people are aware regarding childhood immunization, the more they are likely to get their children vaccinated. The level of awareness invariably correlated with the level of education of pregnant women. This tells us the literacy rate along with efficient immunization campaigns can help us fight against the war of high infant mortality rate against curable diseases.

## Infant Health

### **Newborn observation track and trigger [NOTT] chart.**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 234-237

**Keywords:** Trigger Points; Risk; Observation; Infant, Newborn

**Abstract:** Use of early warning system scores and track-and-trigger charts is widespread in adult and paediatric hospitalized patients; but its use in neonatal group is not well recognized. The authors aimed to develop and implement neonatal observation track-and-trigger chart for use in babies on postnatal wards and to assess its efficacy in identifying neonates in need of urgent medical assessment and intervention. Core group developed Newborn Observation Track and Trigger [NOTT] chart for "At-Risk" and "At-High-Risk" Infants. A decision tree was devised based on 'low', 'medium' and 'high' scores. Sensitivity and specificity of NOTT chart's 'medium' and 'high' score was 96% and 90%, respectively. Positive and negative predictive value was 43% and 100%, respectively. NOTT chart is a valuable tool for assessment of neonates on postnatal wards. A prospective study, using large number of participants, would be beneficial to further corroborate this useful tool.

## Influenza Vaccines

### **therapeutic use**

### **Improving influenza vaccination rates of healthcare workers: a multipronged approach in Qatar.**

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**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (4): 303-310

**Keywords:** Health Personnel-trends; Influenza, Human-immunology; Seasons; Hospitals; Delivery of Health Care

**Abstract:** We assessed whether an influenza vaccination [IV] campaign was effective at increasing vaccination rate in healthcare workers [HCWs] in 2 hospitals in Doha, Qatar that had no mandatory IV policy. The campaign comprised promotional, educational and vaccine delivery interventions; a dedicated IV team; telephone hotline; free IV with improved access, leadership involvement; incentives; group educational sessions; and reporting/tracking activities. During the 2014/15 influenza season, IV rates according to hospital and HCW category were calculated and compared with the 2 seasons before the intervention. The combined mean rate for IV for both hospitals increased for 2014/15 [64.3%] compared with 2013/14 [37.2%] and 2012/13 [28.4%]. There was increased IV uptake among doctors and nurses at each hospital, and the IV rate for the 2 hospitals [59.1 and 69.5%] were higher than in 2013/14 [21.1% and 53.2%] and 2012/13 [17.2% and 39.6%]. The findings highlight the importance of improving IV rates among HCWs in hospitals with no mandatory vaccination policies through multicomponent interventions.

## Insurance, Health

### **Administrative process and criteria ranking for drug entering health insurance list in Iran-TOPSIS-based consensus model.**

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 369-381

**Keywords:** Chemistry, Pharmaceutical; Surveys and Questionnaires; Consensus; Decision Making; Organization and Administration

**Abstract:** The purposes of our study were to identify a drug entry process, collect, and prioritize criteria for selecting drugs for the list of basic health insurance commitments to prepare an "evidence based reimbursement eligibility plan" in Iran. The 128 noticeable criteria were found when studying the health insurance systems of developed countries. Four parts [involving criteria] formed the first questionnaire: evaluation of evidences quality, clinical evaluation, economic evaluation, and managerial appraisal. The 85 experts [purposed sampling] were asked to mark the importance of each criterion from 1 to 100 as 1 representing the least and 100 the most important criterion and 45 out of them replied completely. Then, in the next questionnaire, we evaluated the 48 remainder criteria by the same 45 participants under four sub-criteria [Cost calculation simplicity, Interpretability, Precision, and Updating capability of a criterion]. After collecting the replies, the remainder criteria were ranked by TOPSIS method. Softwares "SPSS" 17 and Excel 2007 were used. The ranks of the five most important criteria which were found for drug approval based on TOPSIS are as follows: 1-domestic production [0.556], 2-duration of using [0.399], 3-independence of the assessment group [0.363] 4-impact budgeting [0.362] 5-decisions of other countries about the same drug [0.358]. The numbers in parenthesis are relative closeness alternatives in relation to the ideal solution. This model gave a scientific model for judging fairly on the acceptance of novelty medicines.

## Interferon-alpha

### **therapeutic uses**

#### **Development of systemic lupus erythematosus following interferon-alpha therapy for hepatitis C infection.**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 223-224

**Keywords:** Hepatitis C-therapy; Lupus Erythematosus, Systemic

**Abstract:** Interferon-alpha [IFN-alpha] therapy has been associated with de novo development of systemic lupus erythematosus [SLE]. We report a 48-year woman with chronic hepatitis C, who developed low grade fever, joint aches and pains, painful mouth ulcers, shortness of breath, dry cough and pleuritic chest pain after 2 months of completion of treatment with pegylated interferon-alpha. These clinical manifestations and the relevant immunologic investigations were in favour of SLE. She responded well to corticosteroids and hydroxychloroquine treatment.

## Interleukin-10

### **blood**

#### **Interleukin-10 as a marker of disease progression in Dengue hemorrhagic fever.**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 187-190

**Keywords:** Severe Dengue; Patient Outcome Assessment; Disease Progression

**Abstract:** Objective: To evaluate the plasma interleukin-10 [IL-10] levels in patients suffering from dengue hemorrhagic fever between 4 to 7 days of onset of disease and 24 hours after the first sample, to find out the association of plasma IL-10 levels with the outcome. Study Design: Analytical study. Place and Duration of Study: All major hospitals of Lahore, Pakistan, from August to November 2012. Methodology: Participants included 50 registered patients of dengue hemorrhagic fever [DHF] aged between 15 - 50 years. Plasma. IL-10 concentrations were

measured on above stated day. Outcome was described as recovery and shock. Platelet count and hematocrit percentages were also recorded. Statistical analyses were done using SPSS version 19. A p-value  $\leq 0.05$  was considered significant. Results: Plasma IL-10 levels were found to be raised in DHF patients and were associated with fatal outcome [ $p=0.004$ ]. In recovered DHF patients, plasma IL-10 levels decreased after 24 hours [mean 26.54 +/- 16.03 pg/ml] as compared to admission time [mean 74.39 +/- 61.69 pg/ml] but in case of DHF patients suffering from shock, plasma IL-10 was found to be higher after 24 hours [mean 87.69 +/- 7.77 pg/ml] as compared to levels at admission time [mean 42.56 +/- 28.09 pg/ml]. ROC curve analysis revealed a change [30 units pg/ml] of plasma IL-10 concentration, within 24 hours of admission, raised from the base line to be 105 times more critical for shock in DHF patients [100% sensitivity and 71.4% specificity,  $p < 0.001$ ]. Conclusion: Elevated plasma IL-10 is a potential predictor of disease severity and fatal outcome in DHF patients.

## Jaundice, Neonatal

### diagnosis

#### **The study on clinical value of the detection about serum and Unconjugated Bilirubin in diagnosis of neonatal jaundice.**

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**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 339-341

**Keywords:** Bilirubin-blood; Serum Albumin

**Abstract:** In this paper, the clinical value of the detection about serum and unconjugated bilirubin [UCB] in neonatal jaundice was studied to found an effective and rapid method for diagnose of neonatal jaundice. ALB [Serum Albumin], total serum bilirubin [TSB] and UCB were detected by ELISA method among the 100 cases with neonatal jaundice selected for the study. The values of ALB, UCB and TSB in moderate jaundice patients were [42.83 +/- 3.87] g/L, [287.35 +/- 44.38] micromol/L, [304.16 +/- 43.40] micromol/L, respectively; as for the severe jaundice patients, the values were [38.41 +/- 4.82] g/L, [354.38 +/- 48.75] micromol/L, [375.20 +/- 47.51] micromol/L. The results showed significant differences with the  $p < 0.05$  between moderate and severe jaundice patients. The level of ALB, UCB, TSB in hemolytic jaundice, obstructive jaundice and jaundice caused by other infections also had significant differences, and the difference was statistically significant [ $p < 0.05$ ]. The detection of ALB and UCB provides a useful method for the diagnosis and assessment of neonatal jaundice.

## Kidney Failure, Chronic

#### **Evaluation of infections related to the different types of dialysis accesses in patients with end stage renal disease.**

Azoz, Nashwa Mostafa Abd Elmonem; Kelani, Abd Alla Ismail; Al Shazly, Ashraf Anwar; Haridi, Mostafa A.; Omar, Asmaa; Kamal, Samir; Anwar, Walaa; Mersal, Rihab; Soliman, Mona

Assiut University - Faculty of Medicine - Internal Medicine Department

**Assiut Medical Journal** 2015; 39 (3): 71-88

**Keywords:** Renal Dialysis; Risk Factors; Peritoneal Dialysis; Peritoneal Dialysis, Continuous Ambulatory

**Abstract:** Introduction: Infection is considered a common life threatening complication of vascular access and causing morbidity, access failure, and it is the second leading cause of death after cardiovascular event. It accounts approximately 15% to 36% of morbidity and mortality [Jacob, 2011]. Peritonitis, subcutaneous tunnel and exit site infection are the most common complication in Continuous Ambulatory Peritoneal Dialysis [CAPD] patients and accounts for 18% of mortality [Johnson DW, 2009]. Aim of the work 1. To identify the most common pathogenic microorganisms in different types of dialysis accesses in suspected patients in hemodialysis and patients screened for Tenckhoff catheter infection in CA PD. 2. Common risk factors responsible for infection, 3. Most common sensitive antibiotic, and 4. Strategy for management and prevention of infection in the dialysis units of Assiut governorate, Egypt. Material and methods: A total 88 patients with End Stage Renal Disease on regular dialysis. Divided into two main groups: Group [A]: 63 patients on hemodialysis with suspected infected vascular accesses. They were sub-divided into: 27 patients with Permanent accesses including [15 patients with AV fistula and 12 patients with tunneled catheters], and 36 patients with suspected infected temporary catheters including 12 patients for each of jugular, subclavian and femoral catheters in the dialysis unit in Assiut university hospital. Group [B]: 25 patients on Continuous Ambulatory Peritoneal Dialysis [CA PD] screened for Tenckhoff catheter infection in dialysis unit of Alexandria Students Hospital. Results: The positive cultures from colonized permanent accesses were 100% in AV fistula and 58.3% in tunneled,

regarding to CVCs, positive cultures were 75% in subclavian, 83.3% in jugular and 100% in femoral so femoral vein catheters were the highest frequency of colonization, while in CAPD patients, the frequency of colonization were 12%. the most frequent organisms in the colonized permanent accesses and temporary non tunneled catheters were mixed infections [53.3% in AV fistula, 57.1% in tunneled, 60% in jugular and 75% in femoral, while the most common organism in subclavian was non- pathogenic staphylococci by 55.6%, and in CAPD patients, 100% of positive cultures were staphylococcus aureus. Our results demonstrate that, Vancomycin was the most sensitive antibiotic by 93.3% in arterio-venous fistula, 100% in tunneled, 75% in subclavian, 93.8% in Jugular and 87.5% in femoral catheter infections. Conclusion: Mixed infection with non- pathogenic staphylococci and candida were the most frequent pathogens in our centers, most sensitive antibiotics were Vancomycin, Amikacin, Nitrofurantoin, and this should be combined with systemic antifungal.

## Kidney Transplantation

### Frequency and risk factors of post renal transplant anaemia among Egyptian patients.

Saad, Mohammed Gamal; El Hefny, Noor Eldeen Abdelazeem M.; Sobh, Muhammad Abbas; Abdo, Marwa kamal.

Cairo University - Department of Internal Medicine

**Assiut Medical Journal** 2015; 39 (3): 101-110

**Keywords:** Anemia; Risk Factors; Postoperative Complications; Cross-Sectional Studies; Phosphorus-blood

**Abstract:** Background: There is a relative lack of recent information about post kidney transplantation anemia [PTA], especially in the developing countries. In Egypt data are scarce about the frequency and risk factors of PTA, although the first kidney transplantation was done in 1976. Objective: is to identify the frequency and risk factors of post renal transplant anemia. Patients and methods: This is across sectional hospital analytic study enrolling all kidney transplant recipients following in Assiut nephrology outpatient clinic, Kasr EL-Amy transplant outpatient clinic, and Sohag insurance hospital outpatient clinic, within the period from July 2014 to October 2015. Clinical and laboratory data were obtained from 86 patients; anemia was defined as Hb levels of < 13 g/dl for male patients and < 12 g/dl for female patients. Exclusion criteria were pregnancy, patients below 13 years old, multiple organ transplantation, and patients with less than six months from the transplantation. Results: The study showed that 53.5% of the patients were anemic. Multiple logistic regression analysis showed that GFR [p-value =0. 026] is a strong predictor for the development of post-transplant renal anemia. It also showed that high serum phosphorus level [p-value =0. 049] is significantly associated with post- transplant renal anemia. The use of Angiotensin converting enzyme inhibitors [ACEI], immunosuppressive treatments, presence or absence of co-morbidities, and donor type are not significantly associated with Post transplant renal anemia. Conclusion: Our study concluded that post-transplant renal anemia is common and under recognized. Risk factors include renal dysfunction and high serum phosphorus level.

## Lactose

### pharmacokinetics

### Diagnosis and clinical observation of lactose-free milk powder on treatment of neonatal diarrhea.

Liu, Jingyan; Chang, Jing; Yao, Aimei; Hu, Yulian; Yuan, Yuxiao; Yu, Fengqin; Ma, Zhanmin; Wang, Guangzhou; Zhao, Xiang

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Women and Infants Hospital of Zhengzhou

**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 309-314

**Keywords:** Lactose-pharmacology; Lactose Intolerance; Infant Health; Diarrhea, Infantile-therapy; Infant, Newborn

**Abstract:** Neonatal lactose intolerance syndrome is a series of digestive system symptoms caused by the lack of lactase, and could not fully digest the lactose in breast milk or cow milk. Lactose is one of the disaccharides mainly existed in mammalian milk. Lactose content in breast milk is 7.2g/100ml, cow milk is. 4.7g/100ml. Dairy products are the main energy sources for the newborn, and lactose provides 20% energy for infants. During the growth of the newborn, lactose not only play a significant role in energy supply, but also involve in the development of the brain growing. This study mainly studied the lactose development features, the reasons for lactose intolerance, and the measures to treat lactose deficiency.

## Latent Tuberculosis

### **Populations of latent Mycobacterium tuberculosis lack a cell wall: Isolation, visualization, and whole-genome characterization.**

Velayati, Ali Akbar; Abeel, Thomas; Shea, Terrance; Zhavnerko, Gennady Konstantinovich; Birren, Bruce; Cassell, Gail H.; Earl, Ashlee M.; Hoffner, Sven; Farnia, Parissa

Shahid Beheshti University of Medical Sciences - Mycobacteriology Research Centre

*International Journal of Mycobacteriology* 2016; 5 (1): 66-73

**Keywords:** In Vitro Techniques; Population; Cell Wall; Genotyping Techniques; Genome-Wide Association Study

**Abstract:** Objective/Background: Mycobacterium tuberculosis [MTB] causes active tuberculosis [TB] in only a small percentage of infected people. In most cases, the infection is clinically latent, where bacilli can persist in human hosts for years without causing disease. Surprisingly, the biology of such persisters is largely unknown. This study describes the isolation, identification, and whole-genome sequencing [WGS] of latent TB bacilli after 782 days [26 months] of latency [the ability of MTB bacilli to lie persistent]. Methods: The in vitro double-stress model of latency [oxygen and nutrition] was designed for MTB culture. After 26 months of latency, MTB cells that persisted were isolated and investigated under light and atomic force microscopy. Spoligotyping and WGS were performed to verify the identity of the strain. Results: We established a culture medium in which MTB bacilli arrest their growth, reduce their size [0.3-0.01 microm], lose their acid fastness [85-90%] and change their shape. Spoligo patterns of latent cells were identical to original H[37]R[v], with differences observed at spacers two and 14. WGS revealed only a few genetic changes relative to the already published H[37]R[v] reference genome. Among these was a large 2064-hp insertion [RvD6], which was originally detected in both H[37]R[a] and CDC1551, but not H[37]R[v].

## diagnosis

### **Interferon-gamma release assays and tuberculin skin testing for diagnosing latent Mycobacterium tuberculosis infection in at-risk groups in Poland.**

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*International Journal of Mycobacteriology* 2016; 5 (1): 27-33

**Keywords:** Mycobacterium Infections; Tuberculosis; Interferon-gamma Release Tests; Tuberculin Test; Risk; Mycobacterium tuberculosis

**Abstract:** Objective/Background: The diagnostics of latent tuberculosis infection in Poland using the tuberculin skin test is challenging due to the obligatory Bacillus Calmette-Guerin vaccinations. Interferon-gamma release assays are still very rarely used for diagnostics. We compared the tuberculin skin test and the QuantiFERON-TB Gold In-Tube test to evaluate the degree of latent tuberculosis infection in at-risk groups for tuberculosis [homeless, close contacts, periodic contacts, nursing-home attendees] and in healthy individuals. Methods: QuantiFERON-TB Gold In-Tube tests were carried out on 785 individuals from the homeless [n = 150], close contacts [n = 171], periodic contacts [n = 163], nursing-home attendees [n = 152], and healthy individuals [n = 149]. The tuberculin skin test was performed on 129, 156, 147, 148, and 121 participants, respectively. We evaluated the [a] correlation between serum concentrations of interferon gamma and the tuberculin-skin-test induration diameter; [b] between the number of QuantiFERON-TB Gold In-Tube-positive results and the tuberculin-skin-test diameter in the studied groups; and [c] agreement between both tests and the kappa coefficient using the tuberculin-skin-test diameters of 5, 10, and 15 mm. Results: Larger tuberculin-skin-test induration diameters were associated with elevated serum concentrations of interferon gamma. We found a positive correlation between the number of positive QuantiFERON-TB Gold In-Tube screening results and the tuberculin-skin-test induration diameter. The agreement between QuantiFERON-TB Gold In-Tube and tuberculin-skin-test screening results improved with increasing tuberculin-skin-test induration diameter. Conclusion: Based on measures of tuberculin-skin-test induration diameter alone, it is difficult to diagnose latent tuberculosis infection with certainty. The agreement of the QuantiFERON-TB Gold In-Tube test increases with the tuberculin-skin-test diameter. Tuberculin-skin-test diameters larger than 15 mm are more likely to be associated with active infection.

## Lead Poisoning

### **Severe abdominal pain caused by lead toxicity without response to oral chelators: a case report.**

Vossoughinia, Hassan; Pourakbar, Ali; Esfandiari, Samaneh; Sharifianrazavi, Masoud  
Mashhad University of Medical Sciences - Gastroenterology and Hepatology Department

**Middle East Journal of Digestive Diseases** 2016; 8 (1): 67-72

**Keywords:** Abdominal Pain; Chelating Agents; Developing Countries; Lead-blood

**Abstract:** A 19-year-old woman was referred to the Emergency Surgery Department with severe abdominal pain, icterus, and anemia. The patient's clinical and paraclinical findings in addition to her occupational and social history, convinced us to assay blood lead level [BLL], which was 41/5 microg/dL. Therefore toxicology consult was performed to treat lead toxicity. Recheck of the BLL showed the level as 53/7 microg/dL. So oral chelator with succimer was started. Despite consumption of oral chelator, there was no response and the pain continued. Because our repeated evaluations were negative, we decided to re-treat lead poisoning by intravenous and intramuscular chelators. Dimercaprol [BAL] + calcium EDTA was started, and after 5 days, the pain relieved dramatically and the patient was discharged. We recommend more liberal lead poisoning therapy in symptomatic patients, and also suggest parenteral chelator therapy, which is more potent, instead of oral chelators in patients with severe symptoms.

## Learning

### **Effectiveness of case-based learning during small groups sessions at army medical college.**

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National University of Science and Technology [NUST] - Army Medical College - Department of Anatomy.

**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 232-233

**Keywords:** Students, Medical; Education, Medical; Perception; Surveys and Questionnaires

**Abstract:** A pragmatic and sequential mixed method study was conducted at Army Medical College, from October to December 2014 to determine medical students' perceptions regarding effectiveness of small groups during the CBL [case-based learning] sessions. Tutorial Group Effectiveness Instrument [TGEI] was used after written and informed consent. Free text comments about CBL were invited from the respondents and common ones, and were tabulated. The mean scores were calculated and compared among different subgroups of respondents using appropriate independent sample t-test. Content analysis of qualitative segment was done. A p-value of less than 0.05 was taken as statistically significant. The analysis of qualitative and quantitative variables was integrated in the final interpretation phase to draw conclusion. The average age of the participants was 19.33 +/- 0.657 years. The difference in scores was statistically insignificant for cognitive [p = 0.537], motivational [p = 0.868], and demotivational [p = 0.125] effectiveness between males and females. Insignificant difference was also observed for qualification of the overall group productivity among male and female students [p = 0.162], and exposed and non-exposed groups [p = 0.272]. The perceptions of overwhelming number of participants were in favour of small group discussion as a component of CBL.

## Leukemia, Myeloid, Acute

### **diagnosis**

#### **Nucleophosmin 1 expression in acute myeloid leukemia.**

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Hormozgan University of Medical Sciences - Faculty of Dentistry

**Reviews in Clinical Medicine [RCM]** 2015; 2 (4): 209-211

**Keywords:** Nuclear Proteins; Mutation; Leukemia, Myeloid, Acute-therapy

**Abstract:** Nucleophosmin 1 is a multifunctional protein that shuttles between nucleus and cytoplasm in some subtypes of acute myeloid leukemias. Mutated Nucleophosmin 1 expresses aberrantly in the cytoplasm of the cell and transports from nucleolus to the cytoplasm. It is diagnosed by immunohistochemical techniques, flow cytometry assay and mutational analysis. The aim of this study is to evaluate the effects of Nucleophosmin 1 mutation on the clinical presentations, prognosis, diagnosis and the treatment of acute myeloid leukemia. Thirteen articles were extracted from PubMed, Google scholar and Scopus in which the Nucleophosmin 1 mutation correlated with gingival hyperplasia, high white blood cell count, lymphadenopathy, high platelet count and other signs and symptoms of myelomonocytic and monocytic acute myeloid leukemias. This mutation is a provisional entity in the classification of acute myeloid leukemia,



which influences on the prognosis, clinical course and the treatment of some subtypes of acute myeloid leukemias. Nucleophosmin1 mutation has favorable prognostic value in the absence of other concomitant mutations.

## Lipid Regulating Agents

### **Formulation and evaluation of nanocrystals of a lipid lowering agent.**

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 71-82

**Keywords:** Nanoparticles; Atorvastatin Calcium; Polymers

**Abstract:** Atorvastatin calcium, the lipid lowering agent, is taken as a model drug characterized by poor water solubility and bioavailability. In this study an attempt was made for preparation of nanocrystals using high pressure homogenization. A number of stabilizers were included as well as polymers at different concentrations, and the formulations were homogenized for ten cycles at a pressure of 1000 bars. The obtained nanocrystals were evaluated by determining their size, zeta potential, saturated solubility and dissolution rate. Results revealed that Formulation 3, containing [10: 1] drug to sodium lauryl sulphate ratio, possessed the highest saturated solubility and dissolution rate, and hence was analyzed by X-ray diffraction analysis, differential scanning calorimetry, Fourier transform infrared spectroscopy and scanning electron microscopy. An in-vivo study was carried out on the successful formulation in comparison to drug powder using rats as experimental animals. A significant increase in the area under the concentration-time curve C<sub>pmax</sub> and MRT for nanocrystals was observed in comparison to the untreated atorvastatin calcium.

## Liver Cirrhosis

### **Comparative study between the effects of human CD34 and rat bone marrow mesenchymal stem cells on amelioration of CCl<sub>4</sub> induced liver fibrosis.**

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**EJB-Egyptian Journal of Biochemistry and Molecular Biology [The]** 2015; 33 (1-2): 34-51

**Keywords:** Fetal Blood; Carbon Tetrachloride; Bone Marrow; Stem Cells; Antigens, CD34; Mesenchymal Stromal Cells; Rats

**Abstract:** Human umbilical cord blood [UCB] cells and rat bone marrow mesenchymal stem cells. [BM-MSCs] have many advantages as grafts for cell transplantation. The aim of this study was to investigate the impact of UCB cells and BM-MSCs on reversal of hepatic injury and revival of hepatic function in a rat model of carbon tetrachloride [CCl<sub>4</sub>]-induced liver fibrosis.

### **Decompensated cirrhosis; thyroid hormone levels in patients.**

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 34-38

**Keywords:** Thyroid Hormones-blood; Prospective Studies

**Abstract:** Objective: The objective of the study is to find out, the levels of thyroid hormones in serum of the patients having decompensate cirrhosis and to determine the frequency of signs and symptoms of thyroid dysfunctions in such patients. Study design: Prospective descriptive study. Setting: All medical wards of Civil Hospital and Qjha campus, Dow University of Health Sciences, Karachi, Pakistan. Period: May 2013 to January 2015. Methodology: 76 patients having decompensated liver cirrhosis with various presentations, which were fulfilling the inclusion and exclusion criteria and were admitted in medical wards during the study period, were included in this study. Detailed history and examination of each case was performed. Thyroid hormone levels were performed along with other relative laboratory investigations and the results were obtained. Results: Out of 76 patients 58 patients had low serum T3 levels, whereas 18 had normal T3 levels. 65 patients had normal T4 levels and 11 had low serum T4 levels. The TSH levels were found normal in 74 patients and two patients had raised TSH levels. Conclusion: It is concluded that T3 levels is low in cirrhotic patients but at the same time T4 and TSH levels remains normal in majority of cases and the patients remain euthyroid. As far as the clinical scenario is concern, no significance was found in the frequency of sign and symptoms of thyroid dysfunction. Most of the patients did not show signs and symptoms of hyper and hypothyroids.

### **Shear wave elastography; assessment of liver fibrosis in a patient of chronic liver disease associated infected by hepatitis B and C.**

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 99-103

**Keywords:** Elasticity Imaging Techniques; Liver Diseases; Hepatitis B; Hepatitis C

**Abstract:** Objectives: Assessment of liver fibrosis by shear wave elastography in a patient of chronic liver disease associated infected by hepatitis B and C. Study Design: Observational Study. Place and Duration of Study: This study was conducted in the Department of Radiology JPMC Karachi from January to September 2015. Methodology: All the diagnosed cases of Chronic liver disease aged between 30 to 60 years and both gender associated with hepatitis B and C were selected. Patients using lipid-lowering drugs were excluded from this study. Assessment of liver fibrosis dividing into two groups, 1[st] group patients suffering liver disease since 2 years and 2[nd] group more than 2 years on SWE Qualitative and Quantitative analysis was done and staging of fibrosis according to METAVIR SCORE was done. Shear wave elastography and scoring are F0-F1 [5.3-7.1], F>2 [7.5-8.5] Grade 1-Mild, F>3 [9.5-13] Grade 2- Moderate and F>4 [13.1-18.8] Grade 3-Severe. Results: Out of the 80 patients, the majority was found to be male. 44[55%] males and 36[45%] females. Ratio between the male and female is 1.2:1. Mean age was found to be 44.57+7.54 years. Mostly Grade 2- Moderate changes observed in liver were 15[18.75%] of Hepatitis B Surface Antigen positive patients while 14[17.5%] Hepatitis C Virus Antibodies positive patients. Followed by Grade 1-Mild changes were 12[15%] of Hepatitis B+ve patients and 7[8.75%] Hepatitis C+ve positive patients. Grade. 3-Severe were 9[11.25%] of Hepatitis B+ve patients and 4[5%] Hepatitis C+ve positive [Table No 2]. 4[5%] cases observed mild changes in both positive. Conclusion: Elastography techniques is noninvasive method can provide clinicians with innovative options as potential alternatives to liver biopsy for improving the quality of care for those patients with liver diseases.

## Liver Neoplasms

### **Primary hepatic carcinoid tumor with poor outcome.**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 227-229

**Keywords:** Neuroendocrine Tumors; Treatment Outcome; Neoplasm Metastasis; Carcinoid Tumor

**Abstract:** Primary Hepatic Carcinoid Tumor [PHCT] represents an extremely rare clinical entity with only a few cases reported to date. These tumors are rarely associated with metastasis and surgical resection is usually curative. Herein, we report two cases of PHCT associated with poor outcomes due to late diagnosis. Both cases presented late with non-specific symptoms. One patient presented after a 2-week history of symptoms and the second case had a longstanding two years symptomatic interval during which he remained undiagnosed and not properly worked up. Both these cases were diagnosed with hepatic carcinoid tumor, which originates from neuroendocrine cells. Case 1 opted for palliative care and expired in one month's time. Surgical resection was advised to the second case, but he left against medical advice.

## Lung Neoplasms

### **diagnosis**

### **Role of multi detector computed tomography and virtual bronchoscopy in evaluation of pulmonary neoplasms.**

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Assuit University - South Egypt Cancer Institute - Department of Radiodiagnosis for Oncology

**Assuit Medical Journal** 2015; 39 (3): 167-180

**Keywords:** Multidetector Computed Tomography; Bronchoscopy; Bronchial Diseases; Prospective Studies

**Abstract:** Objectives: The aim of this study was to evaluate the accuracy of Mlti detector CT with multiplanar reconstruction images, virtual bronchoscopy [VB] and volume rendering technique compared to the results of fiber-optic bronchoscopy [FOB] in defining bronchial pathologies in patients with pulmonary neoplasms. Methods: Fifty four patients with symptoms or chest X-ray abnormality raising the suspicion of pulmonary neoplasm in which FOB and CT chest were ordered for the initial investigation. Patients underwent both FOB and MDCT. Results: Fifty four patients were enrolled in the study [including 41 with an endobronchial lesion at FB] the sensitivity and specificity of VB to

detect endobronchial lesions were 100% and 86.7% respectively [95% CI]. The positive and negative predictive values of VB were 95.3% and 100% respectively. The accuracy was 962%. Overall, the agreement between VB and FOB regarding the location on endobronchial lesions was perfect [weighted kappa: 0.9]. In 12 cases with obstruction of the main bronchi [5 in left main, 7 in right main bronchus], VB is able to bypass beyond the mass level in 4 cases [33.3% of cases]. The FOB was able to bypass beyond the mass lesion in only 2 cases [16.7% of cases], both of them were partially obstructing masses. FOB cannot pass beyond the mass level in any case with totally obstructing mass. As regard to the extrabronchial structures evaluation, 34 of the 41 endobronchial lesions were associated with extrabronchial part of the endobronchial lesion [ratio about 63% of cases]. The FOB was not able to detect the extrabronchial lesions in any case. In evaluating extrinsic compressions of the airway, FOB detected 11 lesions; VB+MPR [multi planar reconstruction] detected 10 lesions [5 of them caused by enlarged LNS, the remaining 5 were caused by extrabronchial soft tissue mass], VB could not see one of the external compressions with sensitivity, specificity 90.0% and 97.6% respectively. Curved planar reformation detected 13 lesions with sensitivity, specificity 90.9% and 95.3% respectively. Volume rendering detected 12 lesions with sensitivity, specificity 100.0% and 97.7% respectively. While FOB detected 4 mucosal lesions, VB cannot detect any of them with sensitivity and specificity 0%. Conclusion: VB is an extremely useful modality for evaluation of bronchial lesions, it is noninvasive, and the ability to examine 2D and 3D anatomic detail from multiple directions enables precise assessment of intraluminal, extent of the extraluminal diseases or airway patency distal to high-grade bronchial stenosis. We concluded that multi-slice CT in connection with VB became an essential complementary to FOB in selected patients with bronchial lesions.

## Lupus Erythematosus, Systemic

### **Toll-like receptors 4 and 9 expression in systemic lupus erythematosus and dermatomyositis: relation to clinical status and disease activity.**

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**EJB-Egyptian Journal of Biochemistry and Molecular Biology [The]** 2015; 33 (1-2): 68-81

**Keywords:** Dermatomyositis; Toll-Like Receptors; Toll-Like Receptor 4; Toll-Like Receptor 9

**Abstract:** Systemic Lupus Erythematosus [SLE] is an autoimmune disorder affecting almost all organs and tissues. Dermatomyositis [DM] is a chronic muscle disorder that leads to muscle destruction. Although DM mechanisms remain unclear, there is an evidence of autoimmune origin. Toll-like receptors [TLRs] are the key initiators of innate and adaptive immune response due to high production of proinflammatory mediators and activation of antigen presentation. We used qPCR to investigate the expression of TLR4 and TLR9 in peripheral blood mononuclear cells [PBMCs] from SLE and DM patients, as well as muscle tissue biopsies from the DM patients, to explore their role and study their correlations with clinical manifestations and disease activity. Our findings showed a significant increase in TLR4 and TLR9 expression levels in PBMCs from SLE patients and muscle biopsies from DM patients. Such results emphasize the role of TLR signaling and innate immune system in the pathogenesis of both diseases.

## Macrolides

### **Cloning and identification of the lobophorin biosynthetic gene cluster from marine *Streptomyces olivaceus* strain FXJ7.023.**

Yue, Changwu; Niu, Jing; Liu, Ning; Lu, Yuhong; Liu, Minghao; Li, Yuanyuan; Wang, Miao; Shao, Meiyun; Qian, Shenyang; Bao, Yuxin; Huang, Ying

Guizhou Key Laboratory of Microbial Resources and Drug Development - Department of Chemistry and Biochemistry

**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 287-293

**Keywords:** Multigene Family; *Streptomyces*; Cloning, Organism; Aquatic Organisms

**Abstract:** A full length about 105 kb gene cluster containing 35 open reading frames involved in the biosynthesis of lobophorins was cloned and sequenced from a fosmid genomic library of *Streptomyces olivaceus* strain FXJ7.023. The cluster was identified by genome wide annotation and analysis of secondary metabolite biosynthesis gene clusters by anti SMASH and knockout of loading module-contained region of polyketide skeleton synthesis gene [the starter of lobS1]. Gene cluster comparative analysis suggested that the cluster encoded the complete genes for lobophorin polyketide assembly, modification, substrate catalysis, regulation, transportation and resistance, and shows great identity to the newest reported lobophorin biosynthetic gene cluster from *Streptomyces* sp. SCSIO 01127, but with a significant gene rearrangement in the PKS modules.

## Magnetic Resonance Imaging

### **Natural oral contrast agents for gastrointestinal magnetic resonance imaging.**

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**Reviews in Clinical Medicine [RCM]** 2015; 2 (4): 200-204

**Keywords:** Contrast Media-pharmacology; Gastrointestinal Tract; Contrast Media-classification

**Abstract:** Magnetic resonance imaging is an exclusive imaging method which can distinguish injured tissues from the healthy tissues or organs without using ionizing radiation. Magnetic resonance imaging is able to provide quantitative data regarding the anatomical and physiological features of each specific organ. Magnetic resonance imaging is a non-invasive method, but contrast agents are necessary to enhance the visualization of inaccessible organs in some organs such as gastrointestinal [GI] imaging. Various types of contrast agents have been used in studies including intravascular administration and oral materials. Oral contrast agents can be the artificial materials or natural factors. Natural contrast agents consist of fruit juice or pulps. Some advantages have been reported regarding the natural types of contrast agents over the artificial agents including better taste and tolerability. We briefly reviewed the different types of contrast agents and focused on the studies in which natural oral contrast agents used to investigate their efficacy in increasing the gastrointestinal magnetic resonance imaging clarity.

## Malathion

### **Histopathological insight on malathion induced nephropathy which is ameliorated by antioxidants USE; an animal model.**

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**Assiut Medical Journal** 2015; 39 (3): 235-250

**Keywords:** Antioxidants; Kidney-drug effects; Proliferating Cell Nuclear Antigen

**Abstract:** Background and aims: Malathion induced nephro-toxicity is a challenging process, several mechanisms were contributed. The present study was designed to evaluate the histopathological changes evoked by malathion in renal tissue compared to those induced by malathion plus antioxidants, to clarify the underlying mechanisms, using immunohistochemical staining of proliferating cell nuclear antigen [PCNA] and CD34. Methods: Forty adult male albino rats were divided into four equal groups. Group 1; control. Group 2 received malathion [27 mg/kg/day] orally. Group 3 received malathion plus vitamin E [400 mg] once/day, orally. Group 4 received malathion plus vitamin C [100 mg.] once/day, orally. Animals of all groups were sacrificed after 2 months. Histopathological assessment [H and E and Masson 's trichrome], PCNA and CD34 immunostaining were performed to all groups. Results: Group 2 showed a spectrum of histopathological changes; collapsing glomerulopathy with focal sclerosis, degenerative tubular changes and diffuse vascular congestion. Both groups 3 and 4 showed marked reduction of previous changes. Masson 's trichrome stained sections showed more collagen deposition in group 2 compared to groups 3 and 4. Group 2 revealed a decrease in the mean number of total PCNA positive cells [20.8 +/- SD 5.7] [P< 0.001] compared to control group. Groups 3 and 4 showed high significant increase in the mean number of total PCNA positive cells [31.3 +/- SD 5.7 and 31.2 +/- SD7.8] [P<0.001 and 0.004, respectively]. CD 34 immunostaining of group 2 showed negative to minimal expression compared to strong intensity of groups 3 and 4. Conclusion: Malathion can induce a unique pattern of collapsing glomerulopathy with wide spectrum of histopathological changes. Podocytopathy is the main insult which began with podocytes proliferation and hypertrophy and ended by podocytopenia and glomerular sclerosis. The antioxidant use [vitamins E and C] provides a protective role against the previous nephrotoxic changes. PCNA immunostaining highlighted the role of injured podocytes while CD34 ascertained the structural and/or antigenic alteration of endothelial cells in collapsing glomerulopathy.

## Medicine, Traditional

### utilization

#### **Use of traditional medicine among type 2 diabetic Libyans.**

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**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (5): 375-382

**Keywords:** Diabetes Mellitus, Type 2-therapy; Plants, Medicinal-drug effects; Cross-Sectional Studies; Surveys and Questionnaires; Health Education

**Abstract:** The use of traditional medicines is common among patients with chronic illnesses and this practice might pose health risks. The use among Libyan patients with diabetes is unknown. Therefore, this study aimed to estimate the prevalence of traditional medicine use in the previous year among Libyans with type 2 diabetes and to examine the association between its use and sociodemographic and clinical characteristics of the patients. A cross-sectional study was conducted at a large diabetes centre in Tripoli. A self-reported questionnaire was used for data collection. Of the 523 respondents, 28.9% used traditional remedies. Sex was the only variable significantly associated with traditional medicine use; more women used traditional medicines [ $P = 0.01$ ]. A total of 77 traditional medicine items were reported to be used, of which herbs were the most common. The use of traditional medicine for diabetes is prevalent and some of the reported items could pose health risks. Health education programmes are suggested to raise the awareness of the health risks of this practice.

## Meniere Disease

### drug therapy

#### **Unilateral Meniere's disease; intra tympanic injection of low dose gentamicin in the treatment.**

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 93-98

**Keywords:** Gentamicins-therapeutic uses; Injection, Intratympanic

**Abstract:** Meniere's disease is chronic progressive disease with unclear idiopathic etiology and symptomatic improvements with treatment. Objectives: To analyze the efficacy of low dose intratympanic injection of gentamicin for vertigo control in unilateral Meniere's disease. Study Design: Quasi experimental study. Settings: Department of ENT, PIMS, NESCOM and IMDC Islamabad. Materials and Methods: Gentamicin was used intra tympanically in this multicentre study of 75 patients over a period of 8.5 years between 1<sup>st</sup> January 2005 to 30<sup>th</sup> June 2013 in definite Meniere's disease according to the 1995 Document of American academy of otolaryngology- Head and Neck Surgery [AAO-HNS]. All these centers followed same criteria and procedures. Single dose of 1 ml Gentamicin solution 40 mg/ml was instilled in the middle ear through the grommet under microscope and followed up for 3 months and two years. The staging of disease [hearing thresholds] the degree of disability [frequency of attacks per month] and the functional level were assessed before and after treatment. Results: Among 75 patients, 41 were female and 34 were males between age ranges of 25 to 70 years. Most of the patients in the study had stage 2 [23/75] and stage 3 [41/75] Meniere's disease. About 68[91%] patients were having good control of vertigo at the end of two year of intratympanic gentamicin without any loss of hearing. Conclusion: A single Low dose intratympanic gentamicin is effective in controlling vertigo in patients with Meniere's disease with no further deterioration in hearing for at least two years follow up.

## Meningitis, Bacterial

#### **Clinical, paraclinical, and antimicrobial resistance features of community-acquired acute bacterial meningitis at a large infectious diseases ward in Tehran, Iran.**

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 347-354

**Keywords:** Retrospective Studies; Drug Resistance, Microbial; Demography; Cerebrospinal Fluid; Acute Disease; Community-Acquired Infections

**Abstract:** In this study demographic, clinical, paraclinical, microbiological, and therapeutic features of patients with community-acquired acute bacterial meningitis admitted to a referral center for infectious diseases in Iran, have been evaluated. Medical records of adult (> 18 years) individuals with confirmed diagnosis of community-acquired bacterial meningitis during a 4-year period were retrospectively reviewed. All required data were obtained from patients' medical charts. Available findings about antimicrobial susceptibility of isolated bacteria from CSF and/or blood were also collected. Kirby-Bauer disc diffusion method was used to determine their antimicrobial susceptibility profile. Details of medical management including antibiotic regimen, duration, patients' outcome, and possible sequelae of meningitis were recorded. The most commonly isolated microorganism from CSF or blood of patients was *Streptococcus pneumoniae* [33.33%] followed by *Neisseria meningitidis* [27.78%] and *Haemophilus influenzae* [16.67%]. The most common antimicrobial regimen was ceftriaxone plus vancomycin [69.44%] followed by ceftriaxone plus vancomycin plus ampicillin [11.11%]. Neurological sequelae of meningitis including cranial nerve palsy, deafness, and hemiparesis were identified in 4 [11.11%], 2 [5.56%], and 1 [2.78%] subjects, respectively. Regarding mortality, only 3 [8.33%] patients died from bacterial meningitis and the remaining 33 individuals discharged from the hospital. In conclusion, findings of the current study demonstrated that the mean incidence of acute bacterial meningitis in a referral infectious diseases ward in Iran was 9 episodes per year. The majority cases of community-acquired acute bacterial meningitis admitted to our center had negative CSF culture and classic triad of meningitis was absent in them.

## Metformin

### **Design and in-vitro evaluation of sustained release floating tablets of metformin HCL based on effervescence and swelling.**

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International Islamic University Malaysia [IIUM] - Kulliyah of Pharmacy - Department of Pharmaceutical Technology

**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 53-70

**Keywords:** In Vitro Techniques; Delayed-Action Preparations; Tablets; Sodium Bicarbonate; Drug Therapy, Combination

**Abstract:** An oral sustained-release floating tablet formulation of metformin HCl was designed and developed. Effervescence and swelling properties were attributed on the developed tablets by sodium bicarbonate and HPMC-PEO polymer combination, respectively. Tablet composition was optimized by response surface methodology [RSM]. Seventeen [17] trial formulations were analyzed according to. Box-Behnken design of experiment where polymer content of HPMC and PEO at 1: 4 ratio [A], amount of sodium bi-carbonate [B], and amount of SSG [C] were adopted as independent variables. Floating lag time in sec [Y[1]], cumulative percent drug released at 1 h [Y[2]] and 12 h [Y[3]] were chosen as response variables. Tablets from the optimized formulation were also stored at accelerated stability condition [40°C and 75% RH] for 3 months to assess their stability profile. RSM could efficiently optimize the tablet composition with excellent prediction ability. In-vitro drug release until 12 h, floating lag time, and duration of floating were dependent on the amount of three selected independent variables. Optimized tablets remained floating for more than 24 h with a floating lag time of less than 4 min. Based on best fitting method, optimized formulation was found to follow Korsmeyer-Peppas release kinetic. Accelerated stability study revealed that optimized formulation was stable for three months without any major changes in assay, dissolution profile, floating lag time and other physical properties.

## Metrorrhagia

### **Dysfunctional uterine bleeding - a clinicopathological study of 215 cases, Hadhramout - Yemen.**

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**Assiut Medical Journal** 2015; 39 (3): 59-66

**Keywords:** Retrospective Studies; Endometrium-pathology; Uterine Hemorrhage

**Abstract:** Introduction: Dysfunctional uterine bleeding is one of the most common causes for the gynecological patients. This was a retrospective study of different patterns of endometrial pathology and to correlate the histopathology of endometrium with clinical parameters. Material and Methods: This retrospective study was carried out on 215 females over the age of 20 years with DUB at our laboratory sent by gynecologist from Universal Hospital and Al-Amal private clinic, during October 2011 to September 2013. Results: the most common age group presenting of DUB was in age group of 40-49 years [40.50%]. DUB was most frequently seen in grand multipara [75.8%]. Menorrhagia was the predominant bleeding pattern [43.7%]. The normal physiological endometrium [proliferative and

secretory endometrium] was the commonest endometrial histopathological diagnosis [51.1%], followed by endometrial hyperplasia [26%]. There were statistically significant relationship between the parity and the bleeding patterns and between endometrial histopathological diagnosis and the parity age and the patterns of bleeding [P value<0.05]. Conclusion: DUB predominantly affects women of 40-49 years old. DUB is common in grand multiparous women and menorrhagia is the most common presenting bleeding pattern. Proliferative and secretory endometrium followed by endometrial hyperplasia is the major endometrial histopathological findings. The parity is significant correlated with bleeding patterns and endometrial histopathological diagnosis; grand multiparous women can be presented with any patterns of bleeding mainly menorrhagia with endometrial hyperplasia. The endometrial histopathological diagnosis was significantly related to age, the majority of endometrial hyperplasia are in age  $\geq$  50 years.

## Mitral Valve Stenosis

### **Percutaneous transmitral commissurotomy [PTMC]; procedural success and immediate results, a tertiary care hospital experience from developing country.**

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 104-113

**Keywords:** Tertiary Care Centers; Developing Countries; Cross-Sectional Studies

**Abstract:** Background: Mitral stenosis is one of the grave consequences of rheumatic heart disease. Balloon valvuloplasty for stenosed mitral and pulmonary valves has been practiced with good results in the world. Since Inoue et al. introduced balloon valvuloplasty in 1982, percutaneous transmitral commissurotomy [PTMC] has become the treatment of choice for mitral stenosis replacing surgical commissurotomy and mitral valve replacement in many cases. Objective: The aim of this study was to audit the procedural success, in hospital outcome in patients undergoing percutaneous trans-mitral balloon commissurotomy [PTMC] in our set up. Study Design: Observational cross sectional study. Place and Duration: The study was conducted at Faisalabad Institute of Cardiology Faisalabad from March 2011 to December 2013. Materials and Methods: Total one hundred and twenty four patients underwent percutaneous transmitral commissurotomy from March 2011 to December 2013. Any patient of age  $\geq$  10 years with mitral stenosis who fulfills the inclusion and exclusion criteria for PTMC was enrolled in this study. A full history particularly, age, sex, occupation, address, symptoms regarding their referral for medical checkup was noted. Detailed clinical examination especially relevant cardiovascular examination of all the patients was done. ECG of every patient was done. Baseline routine investigations including blood complete with ESR, electrolytes, CRP, LFT, RFT was done in each case. A baseline echocardiography was performed in all patients. Mitral valve area was calculated by planimetry and by pressure half time method. Severity of mitral stenosis was graded as: very severe stenosis [valve area  $<1\text{cm}^2$ ], severe [valve area 1- 1.5 cm<sup>2</sup>] moderate [valve area 1.5- 2 cm<sup>2</sup>] and mild [valve area  $> 2.0\text{cm}^2$ ]. To exclude any clot in LA and LA appendage Transesophageal echocardiography [TEE] was performed. In Cath Lab pre and post PTMC invasive hemodynamics including LA, RA, RV, left ventricular end-diastolic pressure [LVEDP], and transmitral pressure gradient [PG] was calculated. Those patients who have echo contrast on echocardiography were given 5000 IU heparin IV after septal puncture. Antibiotic prophylaxis was initiated in all patients thereafter. The procedure was performed under local anesthesia, if needed moderate sedation was given with midazolam. The procedure was ended when either at least one commissure was splitted, adequate increase in mitral valve area or increase in degree of MR or decrease in mean LA pressure to  $\frac{1}{2}$  of pre PTMC value or decrease in mitral valve gradient was observed. After 24-48 hours patient was discharged and before discharge transthoracic echo was done to measure all the parameters as pre PTMC along with any echo finding of pericardial effusion. Results: Total 124 patients were studied, 92[74.2%] were female and 32[25.8%] were male showing a female predominance. The mean age was 27.29 +/- 9.3. Most of the patients 58[46.8%] were in age group 21-30 years. 87[70.16%] patients were in atrial fibrillation and 37[29.83%] had sinus rhythm. The procedure was successful in 118[95.16%] patients. 2[1.6%] patients need urgent MVR due to severe MR and 1 [0.8%] died during procedure. Most of the patients 85[68.55%] were in NYHA class III. After PTMC, ASD was present in 13[10.5%] patients. After PTMC moderate MR was seen in 2[1.6%] and severe MR was observed in 4[2.173%] patients. Most of the patients 115[92.7%] before PTMC were in severe pulmonary hypertension and after PTMC most of the patients 91[73.4%] were in mild pulmonary hypertension. Pre PTMC mean MVA [cm<sup>2</sup>] was 0.684 +/- 0.1226 and post PTMC it was 1.533 +/- 0.281 cm<sup>2</sup>. Mean MVPG pre PTMC was 26.178 +/- 5.94 mmHg and post PTMC it was 7.62 +/- 5.007 mmHg with significant p value 0.0001. Mean LA pressure before procedure was 29.68 +/- 8.137 mmHg and post PTMC it was 12.28 +/- 6.99 and p value was 0.0001. 10 patients had special problems, 3 had previous H/O PTMC, 3 were pregnant lady, one has kyphoscoliosis, one had large IAS aneurysm, one had H/O CVA and one patient was suffering from renal cell carcinoma. Conclusions: The outcome of this study suggests that PTMC is a safe procedure in experienced hand with good success rate and optimal results even in patients with special problems like pregnancy, previous CVA and redo cases.

## Momordica charantia

### **Influence of total anthocyanins from bitter melon [*Momordica charantia* linn.] as antidiabetic and radical scavenging agents.**

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 301-309

**Keywords:** Anthocyanins; Antioxidants; Hypoglycemic Agents; Free Radical Scavengers

**Abstract:** The majority of the antioxidant and antidiabetic activities of fruits are anthocyanins, a group of polyphenolics that are responsible for the color of many fruits, vegetables and flowers. The harvesting time, storage conditions, maturity, extraction steps etc. are very important for the biological activities based on the alteration of chemical composition. The free radical scavenging and antidiabetic activities of total anthocyanins from bitter melon [*Momordica charantia* Linn.] fruit [TAMC] were evaluated by considering four harvesting times. The free radical scavenging activities of the TAMC samples were assessed using DPPH, DMPD + and ABTS + assays against BHA, rutin and trolox standards. September as a harvesting period [TAMC-S] had effective DPPH [SC50 2.55 +/- 0.08 microg/mL], DMPD + [SC50 2.68 +/- 0.09 microg/mL] and ABTS + [SC50 8.19 +/- 0.09 microg/mL] scavenging activities compared with other samples and standards. In addition, August [TAMC-A] as a harvesting period showed very influential inhibitory activity against alpha-amylase [IC[50] 56.86 +/- 1.12 microg/mL] and moderate inhibitory activity against alpha-glucosidase [IC[50] 88.19 +/- 0.74 microg/mL]. In comparison, pharmaceutical active ingredients such as acarbose exhibited anti-amylase and anti-glucosidase activities with IC[50] values of 93.07 +/- 1.49 microg/mL and 77.25 +/- 1.20 microg/mL respectively. These results suggest that the correct selection of harvest period can significantly increase anthocyanin quantity because of the pharmaceutical properties of TAMC. Consequently, TAMC may be interesting for incorporation in pharmaceutical preparations for human health, since it can suppress hyperglycaemia and it can be also used as food additives due to its antiradical activity.

## Monoamine Oxidase Inhibitors

### **A peroxidase-linked spectrophotometric assay for the detection of monoamine oxidase inhibitors.**

Zhi, Kangkang; Yang, Zhongduo; Sheng, Jie; Shu, Zongmei; Shi, Yin

Lanzhou University of Technology - School of Life Science and Engineering

**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 131-139

**Keywords:** Spectrophotometry; Peroxidase; Chromatography, High Pressure Liquid

**Abstract:** To develop a new more accurate spectrophotometric method for detecting monoamine oxidase inhibitors from plant extracts, a series of amine substrates were selected and their ability to be oxidized by monoamine oxidase was evaluated by the HPLC method and a new substrate was used to develop a peroxidase-linked spectrophotometric assay. 4-[Trifluoromethyl] benzylamine [11] was proved to be an excellent substrate for peroxidase-linked spectrophotometric assay. Therefore, a new peroxidase-linked spectrophotometric assay was set up. The principle of the method is that the MAO converts 11 into aldehyde, ammonia and hydrogen peroxide. In the presence of peroxidase, the hydrogen peroxide will oxidize 4-aminoantipyrine into oxidised 4-aminoantipyrine which can condense with vanillic acid to give a red quinoneimine dye. The production of the quinoneimine dye was detected at 490 nm by a microplate reader. The delta [OD] value between the blank group and blank negative control group in this new method is twice as much as that in Holt's method, which enables the procedure to be more accurate and avoids the produce of false positive results. The new method will be helpful for researchers to screening monoamine oxidase inhibitors from deep-color plant extracts.

## Mycobacterium

### **First detection of *Mycobacterium triplex* in Latin America.**

Campos, Carlos Eduardo Dias; Dias, Claudia Fontoura; Unis, Gisela; Caldas, Paulo Cesar de Souza; Redner, Paulo; Distasio de Carvalho, Luciana; Gomes, Ana Paula Chaves Sobral; Ribeiro, Marta Osorio; Montes, Fatima Cristina. Onofre Fandinho; Tortoli, Enrico; Ramos, Jesus Pais

**International Journal of Mycobacteriology** 2016; 5 (1): 89-91

**Keywords:** Mycobacterium Infections; Sputum; Tuberculosis



**Abstract:** In this study we describe the first isolation of *Mycobacterium triplex* in Latin America. This species causes infections in humans, with very few reports from around the world. We isolated two sputum specimens of a patient with a 6-year history of human immunodeficiency and tuberculosis treatment failure. All tests used confirmed *M. triplex* and the patient responded well to drug therapy for 18 months.

## *Mycobacterium avium* subsp. *paratuberculosis*

### **Molecular epidemiology of *Mycobacterium avium* subspecies *paratuberculosis* in ruminants in different parts of India.**

Sonawane, Ganesh G.; Narnaware, Shirish D.; Tripathi, Bhupendra N.

ICAR-IVRI - Division of Pathology

**International Journal of Mycobacteriology** 2016; 5 (1): 59-65

**Keywords:** Paratuberculosis; Ruminants; *Mycobacterium avium*; Molecular Epidemiology; Molecular Typing

**Abstract:** Objective/Background: Paratuberculosis is an economically important, chronic, and incurable disease in ruminants, caused by *Mycobacterium avium* subspecies *paratuberculosis* [MAP]. Understanding the genetic variability of MAP strains is important in diagnosis, epidemiological investigation, and the formation of strategies for prevention and control of the disease. Methods: In the present study, a total of 61 MAP isolates obtained from different parts and species of India were typed using IS1311 polymerase chain reaction-restriction endonuclease analysis [PCR-REA] to analyze the genetic difference[s], if any, between them and the host adaptation. Results: Based on PCR-REA results, bison B type was detected in 54 [87%] MAP isolates obtained from cattle, sheep, and goats. Of these, 19 were from sheep of the Rajasthan [a = 17] and Bareilly [n = 2], North India regions, 28 were from cattle of Chennai, South India [a = 3], Bareilly, North India [n = 3], and Nagpur, West India [a = 22], and seven goat isolates from Bareilly, North India region. The 'C' type strain was detected in only seven cattle isolates obtained from the Bareilly region. Conclusion: The study revealed that in India, bison B-type MAP strains were prevalent in most of the ruminant species. These results have important epidemiological implications with regard to control and prevention of paratuberculosis in India.

## *Mycobacterium smegmatis*

### **Cellular and humoral immunogenicity of recombinant *Mycobacterium smegmatis* expressing Ag85B epitopes in mice.**

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Universiti Sultan Zainal Abidin - Faculty of Health Sciences

**International Journal of Mycobacteriology** 2016; 5 (1): 7-13

**Keywords:** Immunity, Humoral; Immunity, Cellular; Epitopes; Recombinant Fusion Proteins; Tuberculosis Vaccines; Tuberculosis; Antigens, Bacterial; Mice

**Abstract:** Objective/background: The search for new vaccines more efficacious than bacille. Calmette-Guerin for tuberculosis prevention is of paramount importance for the control of the disease. The expression of *Mycobacterium tuberculosis* antigens in *Mycobacterium smegmatis* is one of the current strategies for the development of new-generation vaccines against tuberculosis. The objective of this study was to evaluate the immunogenicity in mice of *M. smegmatis* expressing epitopes from Ag85B antigen. Methods: *M. smegmatis* expressing three T cell epitopes from *M. tuberculosis* Ag85B [P21, P26, and P53] was constructed [rMs064]. rMs064 was used to immunize BALB/C mice for immunogenicity evaluation. The present study investigates the capacity of rMs064 to induce specific cellular and humoral immune responses against the expressed epitopes. Cytokine production upon stimulation with Ag85B peptides and specific total immunoglobulin G and immunoglobulin G subclasses were determined. Results: The results showed a significant production of interleukin-12 and interleukin-23 when splenocytes were stimulated with P21, P26, and P53 peptides, and interferon-gamma after stimulation with P21 in animals immunized with rMs064 compared with controls. The total immunoglobulin G and its subclasses showed significant increases against the Ag85B epitopes in the sera of rMs064-immunized mice compared with the control groups. Conclusion: The results of this study support the future evaluation of rMs064 as a vaccine candidate against tuberculosis in challenge experiments.

## Mycobacterium tuberculosis

### **Correlating rrs and eis promoter mutations in clinical isolates of Mycobacterium tuberculosis with phenotypic susceptibility levels to the second-line injectables.**

Kambli, Priti; Ajbani, Kanchan; Nikam, Chaitali; Sadani, Meeta; Shetty, Anjali; Udawadia, Zarir; Georghiou, Sophia B.; Rodwell, Timothy C.; Catanzaro, Antonino; Rodrigues, Camilla

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**International Journal of Mycobacteriology** 2016; 5 (1): 1-6

**Keywords:** In Vitro Techniques; Antigens, Bacterial; Bacterial Proteins; Mutation; Tertiary Care Centers; Promoter Regions, Genetic

**Abstract:** Objective/background: The in vitro drug-susceptibility testing of Mycobacterium tuberculosis reports isolates as resistant or susceptible on the basis of single critical concentrations. It is evident that drug resistance in M. tuberculosis is quite heterogeneous, and involves low level, moderate level, and high level of drug-resistant phenotypes. Thus, the aim of our study was to correlate rrs [X52917] and eis [AF144099] promoter mutations, found in M. tuberculosis isolates, with corresponding minimum inhibitory concentrations of amikacin, kanamycin, and capreomycin. Methods: Ninety M. tuberculosis clinical isolates were analyzed in this study. The minimum inhibitory concentrations were determined by MGIT 960 for 59 isolates with resistance-associated mutations in the rrs and eis promoter gene regions, and 31 isolates with wild-type sequences, as determined by the GenoType MTBDRsl [version 1] assay. Results: The rrs A1401G mutation was identified in 48 isolates resistant to the second-line injectables. The eis promoter mutations C-14T [n = 3], G-10C [n = 3], G-10A [n = 3], and C-12T [n = 2] were found within 11 isolates with various resistance profiles to the second-line injectables. Thirty-one isolates had wild-type sequences for the rrs and eis promoter gene regions of interest, one of which was amikacin, kanamycin, and capreomycin resistant. The isolates with the rrs A1401G mutation had amikacin, kanamycin, and capreomycin minimum inhibitory concentrations of >40 mg/L, >20 mg/L, and 515 mg/L, respectively. The isolates with eis promoter mutations had amikacin, kanamycin, and capreomycin minimum inhibitory concentrations of 0.25-1.0 mg/L, 0.625-10 mg/L, and 0.625-2.5 mg/L, respectively.

### **Identification of ofloxacin-resistant mycobacterium tuberculosis by PCR-RFLP and sequencing.**

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University of Agriculture - Faculty of Basic Sciences - Department of Chemistry and Biochemistry

**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 281-286

**Keywords:** Ofloxacin; Drug Resistance; Polymerase Chain Reaction; Polymorphism, Restriction Fragment Length; Sequence Analysis, DNA

**Abstract:** This study was planned to verify the resistance frequency of Ofloxacin [OFX] against Mycobacterium tuberculosis by polymerase chain reaction restriction fragment length polymorphism. [PCR-RFLP] technique and sequencing. Total 366 clinical samples of suspected TB patients were collected from various localities of central Punjab. All of them were found positive by ZN [Zeihl-Nelsen] staining method. Among them, 108 [29.5%] were found negative and 258 [70.5%] positive on PCR based study. The cases not responding to ATT were further characterized by proportion method and by PCR-RFLP to establish the drug resistance. Selected drug resistant case were further sequenced to confirm the results of amplified RFLP. The results showed that out of 118 drug resistant cases, 06 [5.08%], 03 [2.54%] were found resistant to OFX by drug susceptibility testing and PCR-RFLP respectively. The two strains were selected for sequencing procedure. The strain-79 showed point mutation at four points, at codon 70, 71, 76 and 78. The sequence of strain- 81 showed mutation at codon 95.PCR-RFLP is a useful molecular technique for the rapid detection of mutations and may be used to diagnose drug resistance but it should be confirmed by sequencing before starting 2[nd] and 3[rd] generation treatment because the restriction site is the cornerstone of PCR-RFLP and mutation may be occurring elsewhere.

### **Interaction of antimicrobial peptide with mycolyl transferase in Mycobacterium tuberculosis.**

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**International Journal of Mycobacteriology** 2016; 5 (1): 83-88

**Keywords:** Acyltransferases; Antigens, Bacterial; Antimicrobial Cationic Peptides

**Abstract:** It is estimated that about 40% of the Indian population are infected with tuberculosis [TB] and that 3,000,000 people die as a result of TB annually. TB is caused by Mycobacterium tuberculosis. In 2011, the World Health Organization declared India as having the highest TB burden worldwide. An important criteria for pathogenicity is the presence of mycolic acid linked to the protective outer membrane of bacteria. Mycolyl transferase catalyzes the

transfer of mycolic acid and promotes cell wall synthesis. This is also considered as a novel target for drug-mediated intervention strategies. Here, we have attempted to understand the interaction between the antimicrobial peptide [AMP], dermicidin, and mycolyl transferase in *M. tuberculosis* using a computational approach. The present study was undertaken in order to elucidate the capability of AMPs to treat this bacteria, which is less sensitive to available antibiotics, and to design a novel method for new therapies.

### **Use of an adipocyte model to study the transcriptional adaptation of *Mycobacterium tuberculosis* to store and degrade host fat.**

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CSIR-Central Drug Research Institute - Division of Microbiology

**International Journal of Mycobacteriology** 2016; 5 (1): 92-98

**Keywords:** Adipocytes; Triglycerides; Fats; Lipase

**Abstract:** During its persistence in the infected host, *Mycobacterium tuberculosis* [Mtb] accumulates host-derived fatty acids in intracytoplasmic lipid inclusions as triacylglycerols which serve primarily as carbon and energy reserves. The Mtb genome codes for more than 15 triacylglycerol synthases, 24 lipase/esterases, and seven cutinase-like proteins. Hence, we looked at the expression of the corresponding genes in intracellular bacilli persisting amidst the host triacylglycerols. We used the Mtb infected murine adipocyte model to ensure persistence and transcripts were quantified using real-time reverse transcriptase polymerase chain reaction. Dormancy and glyoxylate metabolism was confirmed by the upregulated expression of *dosR* and *icl*, respectively, by intra-adipocyte bacilli compared with in vitro growing bacilli. The study revealed that *tgs1*, *tgs2*, *Rv3371*, and mycolyltransferase *Ag85A* are the predominant triacylglycerol synthases, while *lipF*, *lipH*, *lipJ*, *lipK*, *lipN*, *lipV*, *lipX*, *lipY*, *culp5*, *culp7*, and *culp6* are the predominant lipases/esterases used by Mtb for the storage and degradation of host-derived fat. Moreover, it was observed that many of these enzymes are used by Mtb during active replication rather than during nonreplicating persistence, indicating their probable function in cell wall synthesis.

## Myocardial Infarction

### **Serum miRNA-1 as a novel biomarker for acute myocardial infarction and unstable angina.**

Osman, Osama B.S.; El Sherif, Wafaa T.; Mohamed, Hanan O.; Ali, Hosam H.; El Melegy, Tarek T.; Shafik, Engy A.

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**Assiut Medical Journal** 2015; 39 (3): 39-48

**Keywords:** Angina, Unstable; MicroRNAs-blood; Biomarkers

**Abstract:** Background: Coronary artery diseases are the predominant cause of morbidity and mortality in developed and developing countries. Thus, extraordinary efforts have been directed to determine the molecular and pathological characteristics of the diseased heart in order to develop novel diagnostic and therapeutic strategies miRNAs are class of abundant, non-coding RNAs that attracted scientists' attention for their promising role as diagnostic and prognostic biomarkers in cardiovascular diseases. Aim of the work: To identify whether miRNA-1 is a dependable biomarker for diagnosis of acute myocardial infarction or not. Subjects and Methods: 69 patients with coronary artery disease were included in this study; 36 patients with AMI and 33 patients with unstable angina. Those patients were admitted to coronary care unit, Assiut University Hospital during the period of March to October 2014. In addition 22 apparently healthy subjects were included as a control group. Cardiac troponin I and miRNA-1 was done for all subjects. Results: In patients with AMI the results of miRNA-1 ranged from 28.3 - 6763.9 fold changes above the control level. In those with UA, miRNA-1 result ranged from 1.74 - 144.37 fold changes above the control level [when the control group is one fold]. Comparison between different cups regarding results of miRNA-1 revealed that there was a highly significant difference [ $P < 0.001$ ] between different groups. There was a highly significant increase in patients with AMI when compared with the control group, also a statistically significant increase [ $P < 0.001$ ] in patients with UA when compared with the control group and a statistically significant increase [ $P < 0.001$ ] in patients with AMI when compared with those of UA. Conclusion: miRNA-1 is a novel dependable biomarker in patients with acute coronary syndrome. It shows significant upregulation in patients with AMI, but this upregulation is far from that of UA.

## diagnosis

### **Interpretation of symptoms as a cause of delays in patients with acute myocardial infarction, Istanbul, Turkey.**

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**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (4): 287-294

**Keywords:** Myocardial Infarction-classification; Logistic Models; Delayed Diagnosis-adverse effects; Pain-diagnosis; Cross-Sectional Studies

**Abstract:** This cross-sectional study aimed to assess interpretation of symptoms as a cause of delays in patients with acute myocardial infarction [AMI]. It was conducted at a university hospital in Istanbul, Turkey. The sample included 93 patients: 73 male, mean age 57.89 [12.13] years. Prehospital delay time ranged from 15 minutes to 10 days, with a median of 2 hours [interquartile range: 9.50]. Patients waited for pain to go away [48.4%] and tried to calm down [39.8%]. Most patients attributed AMI-related symptoms to a reason other than heart disease. In a multivariate logistic regression analysis, the type of AMI was classified based on electrocardiography findings [odds ratio 5.18, 95% confidence interval: 1.69-15.91, P=0.004] and was independently associated with a long prehospital delay time, indicating that patients with ST segment elevation MI would seek early medical care. Misinterpretation of symptoms and misconceptions about emergency treatment during AMI cause delays in admission and may affect treatment.

## N-Methyl-3,4-methylenedioxyamphetamine

### Impact of pharmaceutical impurities in ecstasy tablets: gas chromatography-mass spectrometry study.

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 221-229

**Keywords:** Gas Chromatography-Mass Spectrometry; Amphetamine; Methamphetamine; Ketamine

**Abstract:** In this study, a simple and reliable method by gas chromatograph-mass spectrometry [GC-MS] was developed for the fast and regular identification of 3, 4-MDMA impurities in ecstasy tablets. In so doing, 8 samples of impurities were extracted by diethyl ether under alkaline condition and then analyzed by GC-MS. The results revealed high MDMA levels ranging from 37.6% to 57.7%. The GC-MS method showed that unambiguous identification can be achieved for MDMA from 3, 4-methylenedioxyamphetamine [MDA], Amphetamine [AM], methamphetamine [MA] and ketamine [Keta] compounds, respectively. The experimental results indicated the acceptable time window without interfering peaks. It is found that GC-MS was provided a suitable and rapid identification approach for MDMA [Ecstasy] tablets, particularly in the Forensic labs. Consequently, the intense MDMA levels would support the police to develop a simple quantification of impurity in Ecstasy tablets.

## Nails

### The nail as a biomonitor of trace element status in Golestan cohort study.

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**Middle East Journal of Digestive Diseases** 2016; 8 (1): 19-23

**Keywords:** Trace Elements; Cohort Studies; Biomarkers

**Abstract:** Background: In the Golestan Cohort Study that was launched to investigate the causes of esophageal cancer, a complete biospecimen bank was established for storage of collected blood, urine, hair, and nail samples. The objective of this study was to evaluate the feasibility of nail samples as a biomarker of selected trace elements status. Methods: Thirty toenail samples were selected randomly from the participants of Golestan Cohort Study [GCS]. The samples were cleaned and analyzed for selenium, mercury, chromium, iron, zinc, and scandium by instrumental neutron activation analysis at the University of Missouri Research Reactor Center. Pearson correlation coefficients were computed for selected trace elements concentration versus scandium concentration to assess terrestrial contamination. Results: The selenium, zinc, and mercury were not correlated with scandium, suggesting they were free from substantial contamination. The high correlations of scandium with iron and chromium suggest that the iron and chromium levels may be compromised by terrestrial contamination. The coefficients of variation for duplicate samples for selenium and zinc were 2.6% and 7.2%, respectively. Conclusion: The nail samples from Golestan Cohort Study appears to be useable as a biomarker of selenium, zinc, and mercury and could be considered for use in future studies.

## Nephrosis, Lipoid

### **Efficacy and safety of valsartan as an antiproteinuric agent in children aged 3 to 18 years with minimal change nephrotic syndrome.**

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**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 514-521

**Keywords:** Proteinuria-therapy; Case-Control Studies; Valsartan-pharmacology; Safety; Child

**Abstract:** Background: Nephrotic syndrome is primarily a pediatric disorder which causes heavy proteinuria hypoalbuminemia, edema, and hyperlipidemia. Most children [90%] with nephrotic syndrome have idiopathic nephrotic syndrome caused in 85% of the patients by minimal change glomerular disease. Valsartan is an angiotensin II receptor blocker approved in adults for the treatment of hypertension, heart failure and it may also reduce proteinuria in nephritic syndrome. Objective: The aims of this study are to assess antiproteinuric effect of valsartan in nephrotic syndrome in comparison with propranolol and captopril, and to assess safety of valsartan in pediatric age. Patients and Methods: A case control study was done for 104 patients who attended three pediatric hospitals [The Central Pediatric Hospital, Al- Elwyia Pediatric Hospital and Ibn Al-Baladi Hospital] where they were newly diagnosed with minimal change nephrotic syndrome and 38 of them [36.5%] were diagnosed with hypertension from 2006 to 2013 and they were followed up for six months [course of disease treatment]. Data collected in this study included: age, sex, time of diagnosis and blood pressure was measured. Laboratory tests were done which include: measurement of blood urea, serum creatinine, serum potassium, serum cholesterol, serum albumin, hemoglobin level, liver enzymes [serum glutamate pyruvate transaminase, serum glutamic-oxaloacetic transaminase and serum alkaline phosphatase] and albumin in urine. Result: Despite comparable reduction in blood pressure among the 3 groups, angiotensin receptor blocker-treated group showed statistically more significant reduction in proteinuria [amount and onset after initiation of therapy] than other groups. Drug-related adverse events were minor and infrequent, no patient developed dangerous increase in serum potassium, renal function and liver function parameters nor dangerous decrease in mean hemoglobin level. Conclusion: Valsartan is an effective and safe drug to be used in childhood minimal change nephrotic syndrome with rapid and consistent antiproteinuric effect even beyond its antihypertensive effect.

## Neuralgia, Postherpetic

### **Post-herpetic neuralgia; intra-lesional triamcinolone in the treatment.**

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 56-59

**Keywords:** Triamcinolone-therapeutic uses; Lidocaine-therapeutic uses; Pain; Prospective Studies; Injections, Intralesional

**Abstract:** Objectives: To assess the efficacy of intra-lesional triamcinolone in for the treatment of Post Herpetic Neuralgia. Study Design: Prospective interventional study. Setting: Dermatology Department of Dow University Hospital. Period: July 2014 to June 2015. Patients and Methods: Twenty nine patients with diagnosis of Post Herpetic Neuralgia were included after taking written and informed consent. An insulin syringe was used for the injections and the medicines were injected intralesionally. The mixture contained 30/70% of triamcinolone to xylocaine ratio for local infiltration in post herpetic scars. Pain relief assessment was done with the help of visual analogue scale [VAS] after two months. Mean pain score before therapy and after therapy was compared with one sample student t test. Results: Out of total 29 patients 14 were male and 15 were females. The mean age +/- SD was found to be 45.9 +/- 15.4 years. The most common region involved was Chest. The mean +/- SD duration of Symptoms was 5.58 +/- 1.80 weeks. The mean pain score before therapy was 6.86 +/- 1.66 which after one month of therapy reduced to 3.72 +/- 1.86. The reduction in pain was statistically significant [p<0.001]. Conclusion: Post Herpetic Neuralgia can be effectively treated by the local infiltration of a mixture of triamcinolone and lignocaine. It is recommended that long-term follow-up studies should be done with corticosteroids only or in combination with local anesthetics to additionally evaluate the effectiveness of such treatment in postherpetic neuralgia.

## Neuroblastoma

### epidemiology

#### **Neuroblastoma: a clinico-epidemiological study in Al-Khadhimya teaching hospital.**

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**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 530-537

**Keywords:** Neuroblastoma-diagnosis; Neuroblastoma-therapy; Hospitals, Teaching; Infant; Child

**Abstract:** Background: Neuroblastoma is the third most common childhood cancer, after leukemia and brain tumors, and is the most common solid extra cranial tumor in children. The term neuroblastoma is commonly used to refer to a spectrum of neuroblastic tumors [including neuroblastomas, ganglioneuroblastomas, and ganglioneuromas] that arise from primitive sympathetic ganglion cells. Objective: The aim of this research is to study the epidemiological and clinical feature of neuroblastoma in a group of Iraqi infants and children who were admitted to the pediatric ward of Al-Khadhimya Teaching Hospital. Patients and methods: The study was done over a period of three months from 1[st] of Feb. 2010 to the end of Apr. 2010. In reviewing all files, 18 cases were collected from the Pediatric Hemato-Oncology Consultation Clinic in Al-Khadhimya Teaching Hospital, they were diagnosed and treated consequently in the pediatric ward / hemato-oncology unit over a period of 9 years [2002-2010]. Data regarding age, sex, residence, site of primary disease and clinical presentation were taken from the recording files in the pediatrics Hemato-Oncology Clinic. Methods used to diagnose our patients includes, fine needle aspiration of tumor mass, Bone marrow aspiration and biopsy of different sites. Chemotherapy was the main line of treatment. Results: The total number of studied cases was eighteen cases. The median age was 15 months with male to female ratio of [0.63:1], 9 cases [50%] were below 1 year. Abdominal mass was the commonest site of tumor 12 cases [67%], weight loss was the most common symptom 18 cases [100%] followed by abdominal distention 14 cases [78%], abdominal mass represent the most common sign in 12 cases [67%]. Stage IV was noticed in 9 cases [50%], 10 cases [56%] were a high risk group, 7 cases [38.8%] had bone marrow metastases, 6 cases [34%] finished treatment and survive, 4 cases [22%] relapsed, 2 cases [11%] died. Conclusion: The majority of cases were recognized during the first two years of age. Female were involved more than male. The outcome of treated cases was good and accepted. Abdominal mass is the commonest site, weight loss is the commonest symptoms.

## Nitric Oxide Synthase Type III

#### **A preliminary study on endothelial nitric oxide synthase intron 4a/b polymorphism in ulcerative colitis-associated colorectal cancer.**

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**EJB-Egyptian Journal of Biochemistry and Molecular Biology [The]** 2015; 33 (1-2): 16-33

**Keywords:** Polymorphism, Genetic; Introns; Colitis, Ulcerative; Colorectal Neoplasms

**Abstract:** Cancer is one the most concerning complication of longstanding ulcerative colitis [UC]. This study was undertaken to investigate the possible association between eNOS gene intron 4 polymorphism and the development of UC-associated colorectal cancer. It was carried out on 120 subjects; distributed as follows: 40 patients with UC associated colorectal cancer, 40 patients with UC who did not develop colorectal cancer and 40 control subjects. Genotypes [aa, bb, ab] for eNOS gene intron 4 polymorphism were identified using amplified fragment length polymorphism PCR. Plasma nitrate and nitrite levels were used to estimate the amounts of endogenous nitric oxide formation using nitric oxide colorimetric assay kit. Our preliminary data revealed that, compared to the bb genotype, the aa and ab eNOS genotypes were significantly associated with increased risk of developing UC associated colorectal cancer. Meanwhile, in UC associated - colorectal cancer and UC patients groups, plasma NO levels were higher in patients with 4a4a/4a4b genotypes compared to those with bb genotype. It can be concluded from our preliminary study that a allele variant of eNOS intron 4 polymorphism may be associated with increased risk of development of UC associated colorectal cancer, however, large scaled studies are needed to verify these preliminary results.

## Non-alcoholic Fatty Liver Disease

### Iron status and metabolic syndrome in patients with non-alcoholic fatty liver disease.

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**Middle East Journal of Digestive Diseases** 2016; 8 (1): 31-38

**Keywords:** Iron-blood; Ferritins-blood; Transferrin; Case-Control Studies; Metabolic Syndrome X

**Abstract:** Background: A hypothesis has been presented about the role of serum iron, ferritin and transferrin saturation among patients with non-alcoholic fatty liver disease [NAFLD] and resistance to insulin [metabolic syndrome [MetS]], but there is much controversy. This study aimed at investigating the level of serum iron and demographic characteristics in patients with NAFLD with or without MetS. Methods: A case-control study was conducted on patients with elevated liver enzymes referring to Baqiyatallah clinic, Tehran, Iran during 2010-2011. After ruling out other causes of increased aminotransferases and approving the diagnosis of NAFLD, the patients were divided into two groups of with or without MetS. Then, the individuals' demographic, sonographic, and laboratory characteristics were recorded. Results: This research included 299 patients suffering from NAFLD who were divided into MetS [n=143; 47.8%] and non-MetS [n=156; 52.2%] groups. The age, systolic and diastolic blood pressure, body mass index, waist/hip ratio, glucose tolerance test, serum insulin, C. peptide, triglyceride, and HB A1c were different between MetS and non-MetS groups [p<0.05]. There was no significant difference in serum iron and ferritin levels between the two groups, however, a significant correlation was found between serum ferritin and alanine transaminase [p=0.005] and also aspartate aminotransferase [p=0.032]. Conclusion: Our findings did not show a significant relationship between iron, in free or storage form, and the presence of MetS among patients with NAFLD, but serum ferritin can correlate with hepatocytes injuries indicated by raised aminotransferases. Nevertheless, to clarify this relationship further molecular, genomic, and histopathological studies are required.

### epidemiology

### Non-Alcoholic Fatty Liver Disease [NAFLD]; frequency in diabetes mellitus [type II] patients and non diabetic group at Shalamar medical and dental college, Lahore.

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 29-33

**Keywords:** Cross-Sectional Studies; Diabetes Mellitus, Type 2; Incidence; Triglycerides-blood

**Abstract:** Objectives: To assess the incidence of NAFLD and biochemical profile in nondiabetic and diabetic patients. Study Design: It was a cross sectional descriptive study. Setting: Shalamar Institute of Health Sciences [SIHS], Lahore. Period: Six months, Jan 2015 to Jun 2015. Methods: The patients coming to the Radiology Department for abdominal ultrasound were age and sex matched into fatty liver and non-fatty liver groups and diabetic and nondiabetic groups and were further evaluated on the basis of glucose, alanine aminotransferase [ALT] and triglycerides [TG] levels from the laboratory data. Results: The findings of all biochemical parameters were raised in diabetic patients with fatty liver as well as in non-fatty liver diabetic group and the differences were found to be statistically [P value less than 0.05] significant. In non-diabetic group, out of 200 subjects 56.5% had NAFLD whereas 43.5% had no NAFLD. In diabetic patients, out of 200 patients 69% had NAFLD and 31% had no NAFLD and the difference was significant statistically [P<0.05]. The prevalence of NAFLD 12.5% was higher in type-2 diabetic patients as compared to non-diabetic group. In non-diabetic group, 113 subjects had TG value of 181 +/- 82.49, while 87 subjects had TG of 141 +/- 44.5. In diabetic patients, 138 patients had TG value of 467 +/- 277.64 whereas 62 patients had TG value of 178 +/- 46.52, which was statistically significant [P<0.05]. Conclusion: Fatty liver is an important marker for metabolic syndrome which is a pre-diabetic condition. The occurrence of NAFLD was elevated in type II patients of diabetes. The traditional risk factors for NAFLD are considered to be female sex, type II diabetes mellitus, obesity and hypertriglyceridemia. Hyperglycemia, hypertriglyceridemia and elevated ALT were observed more repeatedly in fatty liver than in non-fatty liver [type II] diabetic patients.

## Norfloxacin

### therapeutic uses

#### **Norfloxacin loaded pH triggered nanoparticulate in situ gel for extraocular bacterial infections: Optimization, ocular irritancy and corneal toxicity.**

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 3-22

**Keywords:** Hydrogen-Ion Concentration; Bacterial Infections; Eye Infections; Corneal Injuries; Nanoparticles

**Abstract:** In order to achieve prolong corneal contact time of norfloxacin [NFX] for treatment of extra ocular diseases, a pH triggered nanoparticulate in situ gelling system was designed to explore dual advantage of nanoparticles and in situ gelling system, for its ocular delivery. NFX loaded nanocarriers were developed by ionotropic gelation technique using chitosan as a matrix forming polymer, cross-linked by an anionic crosslinker sodium tripolyphosphate [TPP]. Optimization of nanoformulations was done by 32 full factorial design using chitosan and TPP concentration[s] as the independent variables and particle size% entrapment efficiency and% cumulative drug release as the responses. The experimental design was validated by extra design check point formulation [N10]. The optimized formulation [N4] selected on the basis of highest desirability factor [0.895] was developed as in situ gelling system using carbapol934 and evaluated. The best in situ gelling formulation [N4G5] was sufficiently mucoadhesive, corneal toxicity, antibacterial activity and free from ocular irritancy.

## Nurses

#### **Association of rotating night shift with lipid profile among nurses in an Egyptian tertiary university hospital.**

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**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (4): 295-302

**Keywords:** Dyslipidemias-etiology; Job Satisfaction; Lipids-blood; Healthy Diet-standards; Surveys and Questionnaires; Tertiary Care Centers

**Abstract:** The main objective was to identify whether night shift nurses are more prone to dyslipidaemia than day shift nurses. One hundred and fifty female nurses aged 20-49 years were recruited from Ain Shams University Hospitals, Egypt, from January to March 2016: 64 day shift and 86 night shift. Diet type was assessed by interview questionnaire and job satisfaction was assessed using the job satisfaction survey. Triglyceride [TG], low-density lipoprotein [LDL] and high-density lipoprotein [HDL] were measured in all nurses. The predictors of high TG level were ages 30-39 and  $\geq$  40 years and night shift. The only predictor of high LDL level [ $>$  130 mg/dl] was age  $\geq$  40 years. An unhealthy diet and night shift were predictors of risky HDL levels. Seventy nurses were unsatisfied with their jobs, and 137 ate a semi-healthy diet. The findings emphasize that night shift nurses are at risk of abnormal lipid profile, therefore an occupational programme to help nurses cope with their employment conditions is necessary.

## Obstetric Labor, Premature

#### **Maternal serum corticotrophin releasing hormone level in preterm Labour.**

Al Bayati, Maha M.; Nayef, Hadeel Kh.; Abdul Al Ammer, Susan Abbas

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**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 543-547

**Keywords:** Case-Control Studies; Adrenocorticotrophic Hormone-blood; Pregnant Women; Radioimmunoassay

**Abstract:** Background: Preterm birth still remains a significant management problem and a large number of markers were investigated. Objective: To assess the increasing of Corticotrophin Releasing Hormone [CRH] level in women diagnosed with preterm labour and are of medical value. Design: - Case control study. Al-Kadhymia Teaching Hospital. Methods: Plasma samples of 80 women diagnosed with preterm labour. were used in this study. Samples were divided into three groups, according to week of gestation [24[th] 28[th] 29[th] 32[nd] 33[rd] 37[th]]. CRH values determined by ELISA. Twenty low risk women of control group were recruited near the end of 2[nd] trimester, all of them delivered healthy infants at gestational age greater than 37 weeks. Results: In a study population of one hundred



pregnant women, eighty of them were diagnosed as preterm labour and twenty women as a control group, sixty-four out of eighty high risk women delivered preterm birth while the remaining sixteen of the same group delivered term babies. Our study shows that CRH level is elevated in the women with preterm birth, and ranged between [18.30-95.03] pg/ml. , serum values of CRH were significantly lower in women with term birth and ranging between [13.5-14.9] pg/ml, the [p<0.001]. The sensitivity of CRH was 80% while specificity was 100%. Conclusion: Maternal serum CRH level was elevated in women who gave preterm birth compared with those giving term delivery.

## Occupational Health

### **Occupational health of self-employed skilled labourers and daily-wage workers in Pakistan.**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 240-241

**Keywords:** Delivery of Health Care; Developed Countries

## Ocular Hypertension

### therapy

### **Ocular dorzolamide nanoliposomes for prolonged IOP Reduction: in-vitro and in-vivo evaluation in rabbits.**

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 205-212

**Keywords:** Thiophenes-therapeutic uses; Sulfonamides-therapeutic uses; Liposomes; Intraocular Pressure; Rabbits; In Vitro Techniques

**Abstract:** Dorzolamide ophthalmic drop is one of the most common glaucoma medications but it has a short residence time in the eye. The aim of this study is to develop ocular dorzolamide HCl nanoliposomes [DRZ - nanoliposomes] and to evaluate their potential use for the treatment of ocular hypertension. Nanoliposomes were prepared using Reverse-phase evaporation vesicle [REV] and thin layer hydration [TLH] method with 7:3 and 7:4 molar ratios of phosphatidylcholine:cholesterol. The physicochemical properties of the formulations were investigated. Formulations with 7:4 lipid ratio were evaluated in terms of drug release, physical stability and ex vivo permeation through the excised albino rabbit cornea. The rabbits in groups of 6 were treated with selected DRZ - nanoliposomes or dorzolamide solution or marketed dorzolamid preparation [Biosopt®] and intraocular pressure [IOP] was monitored. Formulations with 7:4 molar ratio entrapped greater amount of drug compared to those with 7:3 lipid components ratio. DRZ - nanoliposomes with 7:4 lipid ratio showed more transcorneal permeation than Dorzolamide solution [p<0.05]. ; and the formulation prepared by TLH method exhibited higher permeability than that prepared by REV method [p<0.05]. The selected DRZ - nanoliposomes showed greater IOP lowering activity and a more prolonged effect compared to dorzolamide solution and Biosopt®. DRZ - nanoliposomes prepared by TLH method with 7:4 ratio showed promising results as a candidate for the treatment of ocular hypertension.

## Operating Rooms

### **Operating room [or] utilization and efficiency; a study to find out methods for improvement.**

Khan, Muhammad Ahmad; Sheraz, Motsim; Ahmad, Shakeel

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 6-9

**Keywords:** Quality Improvement; Efficiency

**Abstract:** Introduction: Operating room [OR] is a key department in any institution and it runs with heavy resources. Improper running carries not only loss of revenue but it also effects patient care. Delays in operating room are deleterious and methods to decrease these delays are important not only for patient care, but to maximize operating room resource utilization. Objective: To determine the causes effecting the OR utilization and efficiency and to find out ways to overcome it. Study Design: Observational Study. Period: 15-01-2011 to 08-06-2011. Setting: King Khalid Hospital, KSA. Patients and Methods: Operating room baseline data was collected for one month and it was compared with historical data of the last six month. Operating room utilization was found to be 41% overall and 34% for elective

cases [benchmark 85%]. In patient pathway, on average 17 min were required from call to ward to enter in operating room. First incision time was 11%=8-8:30, 31% = 8:30-9 and 58%= 9+. Cancellation was 9%. Various improvement projects were started including surgical list management, OR rescheduling, start on time dashboard pre-anesthesia clinic and reinforcement of day surgery program. Results: The results showed 47% improvement in elective OR utilization and OR utilization reaching 69%. There was 76% improvement in emergency case booking and 18% improvement in pre/ post-op process time. There was 64% improvement in 1[st] cases before 9 am. Conclusion: Integrated management working can improve the working and outcome of the operating room resulting in high efficiency and best patient satisfaction.

## Oryza

### **Rice straw in building the Egyptian environmental friendly house as a case study.**

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**Assiut University Bulletin for Environmental Researches** 2015; 18 (2): 53-60

**Keywords:** Construction Materials; Air Pollution; Economics

**Abstract:** Rice is one of the strategic crops in Egypt. In 2013, 1.42 million feddans [acres] has been grown with an average production of about 4.3 million tons. It is mainly cultivated in the northern east part of the country especially in Kafr El-Sheikh, Al-Sharkia and Al-Dakahlia Governorates. But the processing of that large amount of rice yields approximately 4 million tons of rice straw as an agricultural residue annually. In Egypt, only 20% of the rice straw used for other purposes such as ethanol, paper, fertilizers production and fodders. The remaining part was left on the fields for burning, causing high degrees of environmental pollution known as the Black Cloud, despite the high economic value of these residues if they are recycled and reused. This paper explores the different architectural styles of straw construction worldwide, whether by the rice-cement bricks, straw panels or straw bales. With an aim to reach an economic environmentally adapted system for wide application of straw construction in Egypt. The paper presents an Egyptian environmental example of building a low-cost house which saving about 40% of the direct cost if it built by the traditional cement bricks method, in addition to the indirect cost saving in energy consumption, and thermal insulation.

## Osteomyelitis

### **diagnosis**

#### **Bacterial susceptibility and resistance analysis of traumatic osteomyelitis.**

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**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 357-360

**Keywords:** Anti-Bacterial Agents; Wounds and Injuries; Osteomyelitis-prevention and control; Drug Resistance

**Abstract:** With the rapid development of industry, agriculture and transportation, the high energy trauma happened accordingly, thus greatly increased the incidence of traumatic osteomyelitis. The clinical traumatic osteomyelitis was mainly the local bone tissue inflammation caused by bacteria infection as trauma or iatrogenic causes. The delaying recovery could cause bone deflection or bone nonunion. The purpose of this paper was to contribute new reference for the clinical prevention and treatment through tremendous of disease-causing bacteria susceptibility and resistance analysis of osteomyelitis.

## Pancreatic Neoplasms

### **Radical Antegrade modular Pancreato-Splenectomy [ramps] procedure with celiac trunk resection case report.**

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**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 581-584

**Keywords:** Splenectomy; Celiac Artery

**Abstract:** Carcinoma of the body and tail of the pancreas considered one of the most challenging tumors due its retroperitoneal location and neighboring major blood vessels. Therefore, it is often presents at an advanced stage and is deemed unresectable in the majority of patients. The traditional approach of left-to-right Pancreato-Splenectomy is associated with a high positive tangential margin rate, is not based on the described lymph node drainage of the organ, and is associated with high recurrence rate. In 2003, Strasberg SM described a novel approach for resection of this part of the pancreas called Radical Antegrade Modular Pancreato-Splenectomy [RAMPS] which was introduced to obtain a higher rate of negative tangential margins and a higher lymph node count. This is a case report of pancreatic tumor with celiac trunk invasion treated by the new RAMPS procedure with celiac trunk resection. Patient discharged home on fifth postoperative day, follow up reveals recurrence free survival one year later.

## diagnosis

### Comparison of endoscopic ultrasound and computed tomography for detecting and staging malignant pancreatic masses.

Kobeisy, Mohammad Alyamany; Tawfik, Nabawia M.; Okasha, Hussein Hassan; Imam, Hala Mostafa Kamel; Sayed, Zainelabdeen Ahmed; Khattab, Hany Mahmoud Helmy; AbdelMajeed, Tarek Abdel Rahman Hassan  
Assuit University - Faculty of Medicine - Department of Internal Medicine

**Assiut Medical Journal** 2015; 39 (3): 153-166

**Keywords:** Tomography; Prospective Studies; Endosonography; Tomography, X-Ray Computed; Tomography, Spiral Computed

**Abstract:** Introduction: Endoscopic ultrasound [EUS] is now established as a valuable imaging test for diagnosing and staging pancreatic cancer. But, with significant recent improvements in spiral computed tomography [CT] scanners, particularly higher resolution and ability to reconstruct 3D images, spiral CT is now increasingly accepted as being better for pancreatic cancer staging. The debate continues, however, about the best diagnostic test or combination of tests in patients with suspected pancreatic cancer. Spiral CT is more readily available than endoscopic ultrasound guided fine needle aspiration [EUS-FNA], cheaper and, therefore, more frequently used. In this study, we evaluated the use of EUS-FNA in comparison with spiral CT for detection and staging of malignant pancreatic masses. Methods: This prospective study was carried in El-Ebrashi unit of Gastroenterology and Hepatology, Internal Medicine department, Cairo University over 3 years from 2011 to 2014. It included 68 patient with suspected pancreatic mass lesions based on abdominal ultrasound, CT or MRI and patients with obstructive jaundice due to common bile duct [CBD] stricture as proved by endoscopic retrograde cholangiopancreatography [ERCP] or Magnetic resonance cholangiopancreatography [MRCP]. The patients were subjected to dual phase pancreatic control multi-detector computed tomography [MDCT] to be followed by EUS-FNA, then cytopathological examination of the studied patients to determine the nature of pancreatic masses, normal and benign cases are followed up after 6 months by EUS for exclusion of malignancy. Results: The final diagnosis in this study was that, 61 patients were malignant and 7 benign cases. The sensitivity of CT was 75% compared to 100% for EUS. While the specificity for CT was 14% compared to 100% for EUS. The negative predictive value for CT was 6.25% compared to 100% for EUS. With an overall accuracy of MDCT was 69% compared to 100% for EUS for diagnosing pancreatic cancer. The sensitivity of CT for detection of small lesions  $\leq$  2 cm was 20% compared to 100% for EUS. The results of cytopathologic examination of. EUS-FNA samples were 59 case as ductal adenocarcinoma, 1 case as mucinous cystadenocarcinoma, 1 case as Serous cystadenocarcinoma, 3 cases as benign neuroendocrine tumors, 3 cases as chronic pancreatitis and one case as simple cyst. For staging of malignant pancreatic masses in stage 1 CT detected only one case out of 5 cases which are all detected by EUS while in stage 4 both CT and EUS have the same results. Conclusion: EUS is more accurate than CT for detection of pancreatic cancer especially in small tumors. EUS is more accurate than CT in staging of pancreatic cancer in early stages. Recommendation: Early diagnosis of pancreatic cancer is the most important step in the way of decreasing its mortality rate. For screening of patients with suspected pancreatic cancer, initially CT should be performed to be followed by EUS whether to exclude masses in negative CT patients or to confirm the mass and to provide a tool for sample/or cytopathological diagnosis in patients with positive CT We recommend a future study to correlate the accuracy of staging by EUS and CT with post-operative histopathological staging.

## Peganum

### Peganum harmala L. extract reduces oxidative stress and improves symptoms in 6-hydroxydopamine-induced Parkinson's disease in rats.

Rezaei, Maryam; Nasri, Sima; Roughani, Mehrdad; Niknami, Zeinab; Ziai, Seyed Ali  
Lorestan University of Medical Sciences - Razi Herbal Medicines Research Center  
**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1):275-281

**Keywords:** Oxidative Stress; Oxidopamine; Parkinson Disease; Peptidyl-Dipeptidase A; Rats, Wistar

**Abstract:** Parkinson's disease is one of the most common neurodegenerative disorders. There are many documents about the effects of oxidative stress in Parkinson's disease etiology. Angiotensin II activates NADPH dependent oxidases and causes superoxides formation. Peganum harmala L. extract, which has angiotensin converting enzyme [ACE] inhibitory effect, is considered to evaluate oxidative stress inhibition and Parkinson's disease improvement. Male rats weighting 200-250 g were divided into 5 groups: Control, Neurotoxin [injection of 6-hydroxydopamine into left hemisphere substantia nigra], Peganum harmala's seedsaqueous extract [10 mg/kg] and captopril [5 mg/kg]. Peganum harmala and captopril were injected intraperitoneally -144, -120, -96, -72, -48, -24, -2, 4 and 24 h relative to 6-hydroxydopamine injection time. Muscle stiffness, apomorphine induced unilateral rotation, amount of brain's protein oxidation and lipid peroxidation, ACE activity and histology of substantia nigra were assayed in all groups. Peganum harmala improved Muscle stiffness and one-direction rotation behavior significantly. It also reduced brain's lipid and protein oxidation levels in neurotoxin-injected rats significantly. In Peganum harmala group compared to control group, brain's ACE activity was significantly inhibited. In histological study, Peganum harmala prevented degeneration of dopaminergic neurons, too. In conclusion, aqueous extract of Peganum harmala could prevent symptoms and reduced oxidative stress markers in rats with Parkinson's disease induced by 6-hydroxydopamine.

## Personality Disorders

### psychology

#### **Mediator role of experiential avoidance in relationship of perceived stress and alexithymia with mental health.**

Zakiei, Ali; Ghasemi, Seyed Ramin; Gilan, Nader Rajabi; Reshadat, Sohyla; Sharifi, Kasra; Mohammadi, Omid  
Kermanshah University of Medical Sciences - Social Development and Health Promotion Research Center.

**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (5): 335-341

**Keywords:** Mental Health-standards; Affective Symptoms-psychology; Cross-Sectional Studies; Regression Analysis; Stress, Psychological

**Abstract:** This cross-sectional study investigated the mediatory role of experiential avoidance in the relationship between perceived stress and alexithymia with mental health. We enrolled 440 students [age 18-30 years] at Kermanshah University of Medical Sciences through stratified random sampling method. The study tools were demographic checklist, GHQ-28, Toronto Alexithymia Scale-20 and Perceived Stress Scale. Data were analysed by SPSS-18 and AMOS-18 using Pearson correlation, hierarchical regression analysis and structural equation modelling [SEM]. There was a significant positive correlation between perceived stress and experiential avoidance, and alexithymia and mental health problems [P < 0.001]. SEM showed that the relationship between perceived stress and mental health problems by experiential avoidance was 0.19 [[beta = 0.19; standard error [SE] = 0.09; P = 0.001], and the relationship between alexithymia and mental health problems through experiential avoidance was 0.09 [beta = 0.09; SE = 0.43; P. = 0.01]. The mediatory role of experiential avoidance was confirmed in such a way that the effects of alexithymia and perceived stress decreased.

## Pharmacovigilance

#### **Pharmacovigilance and adverse drug reporting system; awareness in Pakistan: pharmacy students and professionals approach and facts.**

Ali, Huma; Zafar, Farya; Naveed, Safila; Shah, Shabana N.; Baloch, Saba A.; Naqvi, Ghazala Raza; Siddiqui, Shehla.

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Ziauddin University - Faculty of Pharmacy - Department of Pharmaceutics

**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 85-92

**Keywords:** Adverse Drug Reaction Reporting Systems; Awareness; Students, Pharmacy; Perception; Surveys and Questionnaires; Cross-Sectional Studies

**Abstract:** ABSTRACT: This study was conducted to assess the pharmacy students and graduate knowledge and awareness about pharmacovigilance and adverse drug reporting [ADR] system in Karachi, Pakistan. Objectives: This study was designed to identify the trends, perception and approaches of pharmacy students and graduate towards current scenarios of pharmacovigilance and ADR contextual to our setting. Study Design: It was cross sectional, qualitative study. Setting: Pharmacy final year students and fresh graduates of two public and two private sector universities were included in the study. Period: Data was collected between January to August, 2015. Method: Relevant information was collected using questionnaire with 18 open ended and 7 close ended questions. 400 final year participants and 150 fresh graduates were incorporated in this survey. SPSS 20.0 was used to analyze the results

and Percent, frequencies and mean scores were calculated for various outcomes. Results: Response rate of final year students and fresh graduates was found [97%, n = 388] and [88%, n= 132] respectively. Students level of awareness about pharmacovigilance was found [54%, n =216] in final year students while little higher rates were observed [78%, n=110] in graduates. Concept of pharmacovigilance gained through pharmacy curriculum was calculated 45% rated by final year students. The pharmacovigilance knowledge mean score was found to be 2.368.5 and 2.886.3 for final year students and fresh graduates respectively. 58% total respondents were aware with relationship between the drug and the ADR. Conclusion: The results of this study demonstrate that pharmacy students of final year in public and private sector universities of Pakistan are aware with some basic knowledge of ADRs and pharmacovigilance, but it is a need of time to incorporate more contents of such aspects in curriculum with some practical exposure that how to report ADRs.

## Phosphocreatine

### **A stability-indicating HPLC method for simultaneous determination of creatine phosphate sodium and its related substances in pharmaceutical formulation.**

Xie, Zengkun; Wei, Lihua; Yang, Qin; Yang, Min; Pan, Hongchun; Liu, Hong

Southwest University - College of Pharmaceutical Sciences

**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 119-130

**Keywords:** Chromatography, High Pressure Liquid; Drug Stability; Chemistry, Pharmaceutical

**Abstract:** The objective of the study was to develop a simple, specific and stability-indicating HPLC method, for the simultaneous determination of creatine phosphate sodium [CPS] and its related substances in pharmaceutical formulation. Separation of creatine phosphate sodium from its major process impurities and degradation products was achieved on a Hypersil BDS C18 column [250 × 4.6 mm, 5 microm] with an aqueous mobile phase containing 0.2% [w/v] tetrabutylammonium hydroxide [TAH] and 0.2% [w/v] monopotassium phosphate adjusted to pH 6.6 with orthophosphoric acid at a flow rate of 1.0 mL min<sup>-1</sup>. The analytes were detected at 210 nm. Different chromatographic parameters were carefully optimized. The relative response factors for creatine, creatinine and creatinine phosphate disodium salt relative to CPS were determined. The method has been validated with respect to solution stability, system suitability, LOD, LOQ, linearity, accuracy, precision, specificity and robustness. The validation criteria were met in all cases. The developed method was successfully applied to determine the purity of CPS in pharmaceutical formulation.

## Physicians, Family

### **standards**

### **Satisfaction levels with family physician services: a pilot national health programme in the Islamic Republic of Iran.**

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**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (4): 267-273

**Keywords:** Personal Satisfaction; Consumer Behavior; Rural Population-trends; Urban Population-trends; Surveys and Questionnaires; Cross-Sectional Studies

**Abstract:** Family physicians in the Islamic Republic of Iran have been providing health and medical services to residents from rural areas since 2005, and from 2011 these services have been delivered to urban residents in Fars and Mazandaran provinces. This study was conducted in 2014 to measure the rate of user satisfaction with services provided by family physicians to the rural and urban population of the second most populated county in Fars province [Marvdasht County, population > 330 000]. In urban and rural areas, 1650 houses [825 in rural and 825 in urban areas] were selected, of which 1561 houses were inhabited [2908 individuals in urban and 3062 individuals in rural areas] and an interview-administered doorstep questionnaire was completed. Overall satisfaction rate was 59.2%: 54.5% for urban areas and 63.2% for rural areas. This study suggests that satisfaction is higher among rural residents and that better quality services from family physicians are needed in both rural and urban communities.

## Plant Leaves

### **Leaf litter decomposition and nutrient evaluation of three riparian trees.**

Moussa, Sanaa A. I.; Emam, Mona H.

Cairo University - Faculty of Science - Department of Botany

**Assiut University Bulletin for Environmental Researches** 2015; 18 (2): 17-43

**Keywords:** Germination; Trees

**Abstract:** The study estimated the decomposition rate and nutrient dynamics of the litter of three riparian tree species; *Mortis nigra* L. [Moraceae], and *Salix tetrasperma* Roxb and *Populus alba* L. [Salicaceae]. Dead fallen leaves of the studied species were collected from the banks of El-Khamseen canal; an ultimate Nile branch passing along Saft El-Laban town, Giza Governorate, Egypt. The amount of nutrients released back into eater after the decomposition of the dead leaves' tissues was investigated in plastic tanks located in the ecology lab of Botany Department of Cairo University, at the window side under natural conditions. The litterbag technique was followed. The species detritus decomposition was studied during the autumn season from September 25 to November 25], 2014. In order to determine the decay rates, litterbags [1.5 mm] were applied and collected at seven times intervals for three replications, each. All samples were dried, weighed and analyzed for total soluble sugars, P, N, ash and lignin concentrations. Decomposition of *Morus* leaf litters A as faster than that of the other two species due to its high quality [lower lignin, higher P and moderate N and total soluble sugars contents], in comparison to other species. More than 50% of the initial leaf masses of the study species were decomposed during two months. The difference in decay rate was affected by the ratios: C/N, C/P, lignin /N and lignin /P. The variation in the microbial activities caused fluctuations in the liter nutrient concentrations and the nutrient content remaining. Bacterial and fungal counts differed on the surfaces of the remaining masses depending on the variation in P and N concentrations. Leaf litter decay of species was mainly dependent on bacterial counts that ranged between limited numbers to uncountable than on fungi. Suitable thermal and aerobic conditions contributed to the explanation of the high decay of the species. There was a strong positive correlation between the species and mass remaining, species and N content remaining and between all nutrient concentrations and all nutrient content remaining. No positive relation was found between harvest time and sugar, P and N content remaining. The leaf litter extracts affected the seed germination of *Eruca sativa*. Moreover, the extracts caused root growth inhibition and promoted the shoot growth of the seedlings.

## Plant Viruses

### **isolation and purification**

#### **A method for purification of plant viruses belonging to different virus groups.**

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King Saud University - College of Food and Agriculture Sciences - Plant Protection Department

**Assiut University Bulletin for Environmental Researches** 2015; 18 (2): 45-50

**Keywords:** Centrifugation; Sucrose; Centrifugation, Density Gradient; Viruses

**Abstract:** A method for isolation and purification of plant viruses was described. The method involved use of organic solvents, differential centrifugation and density gradient centrifugation on step and linear caesium sulphate gradients with which a sucrose cushion was used. The method was found suitable for purification of a range of plant viruses belonging to different virus groups and representing the different shapes reported for plant viruses. The plant viruses purified through this method included Potato virus Y [PVY], Tobacco etch virus [TEV], Alfalfa mosaic virus [AMV], Cucumber mosaic virus [CMV], Tobacco mosaic virus [TMV] and Tomato yellow leaf curl virus [TYLCV]. Both the step and linear gradients of caesium sulphate gave similar results in isolation and purification of these viruses and no appreciable differences were observed between them when either of which was used.

## Poisoning

### **Acute accidental poisoning in children admitted to child's central teaching hospital in Baghdad.**

Abdul Hamed, Mohammed Habib; Salman, Raed Yeiha; Mohammed, Mohammed Ali

Teaching Hospital in Baghdad

**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 506-513

**Keywords:** Accidents; Prospective Studies; Treatment Outcome; Acute Disease; Child; Hospitals, Teaching

**Abstract:** Background: Poisoning defined as any substance causing a harmful effect when administered accidentally. Acute accidental poisoning is important medical emergency in children worldwide. Objective: To determine the pattern of accidental poisoning in children, the association between accidental poisoning with gender and residence and to determine the clinical presentation and outcome of each poison. Methods: A prospective study was carried out in Childs Central teaching hospital in Baghdad for all children below ten years with history of accidental poisoning during six months period Data including: age, gender, residence, type of poisoning, presenting symptoms, and outcome were studied. Results: Total number of children admitted were 10280 cases, of these 250 cases were presented with history of accidental poisoning, accounting for [2.43%] of total cases admitted. Most of patients [93.2%] were within age group of 1-5 years. Males to females ratio was [1.27:1]. Most common poison was hydrocarbons [50.8%] followed by medications [3 1.2%] Most of patients were from urban backgrounds [78.0%]. Vomiting was the most common clinical presentation [28. 8%]. [80.0%] Patients discharged from emergency reception within 24 hours. The mortality rates were [0.8%]. Conclusion: Poisoning in children are well recognized problem and affecting large number of children. The mortality rate was low.

## Polycyclic Hydrocarbons, Aromatic

### **Validation of an analytical method for determination of 13 priority polycyclic aromatic hydrocarbons in mineral water using dispersive liquid-liquid microextraction and GC-MS.**

Sadeghi, Ramezan; Kobarfard, Farzad; Yazdanpanah, Hassan; Eslamizad, Samira; Bayat, Mitra

Shahid Beheshti University of Medical Sciences - School of Pharmacy - Department of Toxicology and Pharmacology

**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 157-168

**Keywords:** Mineral Waters; Liquid Phase Microextraction; Gas Chromatography-Mass Spectrometry

**Abstract:** Dispersive liquid-liquid microextraction [DLLME] combined with gas chromatography-mass spectrometry [GC-MS] was used for the extraction and determination of 13 polycyclic aromatic hydrocarbons [PAHs] in mineral water samples. In this procedure, the suitable combination of extraction solvent [500 microL chloroform] and disperser solvent [1000 microL acetone] were quickly injected into the water sample [10.00 mL] by Hamilton syringe. After centrifugation, 500 microL of the lower organic phase was dried under a gentle stream of nitrogen, re-dissolved in chloroform and injected into GC-MS. Chloroform and acetone were found to be the best extraction and disperser solvent, respectively. Validation of the method was performed using spiked calibration curves. The enrichment factor ranged from 93 to 129 and the recovery ranged from 71 to 90%. The linear ranges for all the PAHs were 0.10-2.80 ngmL<sup>-1</sup>. The relative standard deviations [RSDs] of PAHs in water by using anthracene-d[10] as internal standard, were in the range of 4-11% for most of the analytes [n=3]. Limit of detection [LOD] for different PAHs were between 0.03 and 0.1 ngmL<sup>-1</sup>. The method was successfully applied to the analyze of PAHs in mineral water samples collected from Tehran.

## Polycystic Ovary Syndrome

### **Relation between visfatin, insulin resistance and androgen levels in women with polycystic ovary syndrome with and without clinical hyperandrogenism running title: visfatin and polycystic ovary syndrome.**

Mohamed, Mostafa G.; Salman, Safwat A.M.; Youssif, Fatma; Abd Allah, Eman S.H.

Assiut University - Faculty of Medicine - Department of Medical Physiology

**Assiut Medical Journal** 2015; 39 (3): 123-132

**Keywords:** Hyperandrogenism; Nicotinamide Phosphoribosyltransferase-blood; Insulin Resistance; Androgens-blood; Testosterone-blood; Women

**Abstract:** Background: Polycyhc ovary syndrome PCOS is the most common cause of infertility due to anovulation. PCOS patients are at a higher risk of developing type 2 diabetes mellitus and cardiovascular disease. Controversial results were reported regarding levels of visfatin among PCOS patients. Objectives: the aim of the present study was to investigate serum visfatin, testosterone and insulin resistance and the association between these parameters in PCOS patients with and without clinical hyperandrogenism. Subjects and Methods: A total of forty PCOS patients and twenty age BMI-matched overweight healthy control subjects were enrolled in this study. PCOS patients were further divided according to the presence or the absence of clinical hyperandrogenism. Serum visfatin, testosterone, insulin and glucose were measured and the homeostasis model assessment of insulin resistance [HOMA-IR] was calculated. Results: PCOS patients had higher levels of visfatin, testosterone and HOMA-IR compared with the controls. Positive correlation was seen between insulin and testosterone in PCOS patients. PCOS patients with clinical hyperandrogenism had relatively higher levels of visfatin, testosterone and HOMA-IR compared with those without clinical hyperandrogenism. Furthermore, serum visfatin positively correlated with serum insulin and testosterone in PCOS patients with clinical hyperandrogenism, but not in those without clinical hyperandrogenism. Conclusion: There are strong relationships between visfatin and hyperinsulinemia, and hyperandrogenism. Further investigation is needed to elucidate the molecular mechanism behind these relationships.

## Precursor Cell Lymphoblastic Leukemia-Lymphoma

### **Serum hepcidin level and disease course of acute leukemia in children.**

Genena, Shaimaa E.; Ghanayem, Naglaa M.; Safan, Manal A.; Tayel, Safaa I.; Ragab, Seham M.  
Menoufia University - Faculty of Medicine - Medical Biochemistry Department

**EJB-Egyptian Journal of Biochemistry and Molecular Biology [The]** 2015; 33 (1-2): 52-67

**Keywords:** Hepcidins-blood; Ferritins-blood; Enzyme-Linked Immunosorbent Assay; Child

**Abstract:** Acute leukemia [AL] is a heterogeneous group of hematopoietic neoplasms and it is the most common childhood malignancy. Many patients with AL develop severe anemia that requires multiple blood transfusions. Hepcidin expression may play a role in anemia which is often seen in these patients. The aim of this study is to evaluate the role of hepcidin in acute lymphoblastic leukemia in children in Egypt. 60 patients with acute lymphoblastic leukemia [ALL] and 20 age and gender matched healthy children, taken as control group, were included in the study. Complete blood count [CBC], Serum ALT and serum AST were measured by colorimetric methods. Serum hepcidin and ferritin were measured by ELISA. The study showed a significant difference between newly diagnosed ALL cases and other groups regarding all CBC parameters. There was a significant difference in serum levels of hepcidin and ferritin between studied groups. A significant negative correlation was found between serum level of hepcidin and ferritin and each of hemoglobin level and reticulocytic count%, while significant positive correlation was found between hepcidin and ferritin serum levels. From this study, it could be concluded that serum hepcidin level is elevated in ALL children patients at time of diagnosis and correlates with the disease extent. Hepcidin may be one of the serum markers that accounting for anemia associated with ALL in children.

## Pregnancy in Adolescence

### **Complications and outcomes of first and second adolescent pregnancy. Retrospective clinical controlled trial.**

Ali, Athmar Hussian; Mitwaly, Abo Bakr Abass

Sana University - College of Medicine - Obstetrics and Gynecology Department

**Assiut Medical Journal** 2015; 39 (3): 187-194

**Keywords:** Retrospective Studies; Pregnancy Outcome

**Abstract:** Introduction: Teenage pregnancy has significant social, economical and health care problem around the world. Objectives: To study the effect of age [teenager] on pregnancy outcome [maternal and fetal] and identified the most complication occurs during pregnancy in this age group. Material and methods: It was a retrospective hospital based clinical controlled study of the outcomes and complications in first and second pregnancy in adolescent group <20 years compared to outcomes and complications in first and second pregnancy in control group whom are >20 years. One thousands and two hundreds mother of age. <20 years [in their first or second pregnancy] compared to 2400 control mother [in their first or second. pregnancy] whom age are >20 years at Al- Sabeen hospital in Sanaa capital of Yemen during the period from one January 2014 to 31 December. Results: The percentages of adolescent pregnancy attend Al- Sabeen hospital in period from one January 2014 to 31 December 2014 was 12%. Adequate ANC visit is high in teenage pregnancy 55% than control group 42.5%. Normal vaginal delivery is low in teenage pregnancy 35% Vs 60% in control group and instrumental vaginal delivery is higher in teenage pregnancy than control group 45%, 25% respectively, as well as increase rate of cesarean section in teenage pregnancy than control group [20% Vs 15%]. Living baby are approximately equal in both studied groups 80%, while IUFD is higher in control group than teenager [10%, 8.3%]. Body weight of newborn > 3.5 kg is observed in control higher than teenager 15% Vs 7.5%. Conclusion: Teenage pregnancy associated with high rate of PET and anemia than control group. Instrumental vaginal delivery and cesarean section rate is higher in teenage pregnancy.

## Primula

### **Primula auriculata extracts exert cytotoxic and apoptotic effects against HT-29 human colon adenocarcinoma cells.**

Behzad, Sahar; Ebrahim, Karim; Mosaddegh, Mahmoud; Haeri, Ali

Shahid Beheshti University of Medical Sciences - School of Pharmacy - Department of Pharmacognosy.

**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 311-322

**Keywords:** Adenocarcinoma; Colon; Apoptosis; Cell Line; Plants, Medicinal; Phytotherapy; Plant Extracts; Cytotoxicity Tests, Immunologic



**Abstract:** *Primula auriculata* [Tootia] is one of the most important local medicinal plants in Hamedan district, Iran. To investigate cytotoxicity and apoptosis induction of crude methanolic extract and different fraction of it we compared several methods on HT-29 human colon Adenocarcinoma cells. Cancer cell proliferation was measured by 3-[4, 5-dimethylthiazolyl]-2, 5-diphenyl-tetrazolium bromide [MTT] assay and apoptosis induction was analyzed by fluorescence microscopy [acridin orange/ethidium bromide, annexin V/propidium iodide staining, TUNEL assay and Caspase-3 activity assay]. Crude methanolic extract [CM] inhibited the growth of malignant cells in a dose-dependent manner. Among solvent fractions, the dichloromethane fraction [CF] was found to be the most toxic compared to other fractions. With double staining methods, high percentage of 40 microg/mL of [CM] and [CF] treated cells exhibited typical characteristics of apoptotic cells. Apoptosis induction was also revealed by Apoptotic fragmentation of nuclear DNA and activation of caspases-3 in treated cells. These findings indicate that crude methanolic extract and dichloromethane fraction of *P.auriculata* induced apoptosis and inhibited proliferation in colon cancer cells and could be used as a source for new lead structures in drug design to combat colon cancer.

## Prostatic Neoplasms

### **Prognostic value of HER2/neu expression in patients with prostate cancer: a systematic review.**

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**Reviews in Clinical Medicine [RCM]** 2015; 2 (4): 168-173

**Keywords:** Disease-Free Survival; Receptor, ErbB-2; Peptide Fragments

**Abstract:** Introduction: The prognostic value of Her2-positive expression has been investigated for malignancies such as breast cancer. We aimed to study the association between Her2 gene overexpression and clinical progression of hormone-independent prostate cancer. Methods: PubMed was searched to obtain the relevant articles without language or date limit. Reference list of the relevant articles was also searched to prevent missing any relevant article. Data were extracted regarding the patients' survival and disease-free survival. Results: Overall, 15 articles were obtained, which studied the prognostic value of Her2 overexpression in patients with prostate cancer. Based on obtained hazard ratio and calculated log-rank test, overexpression of Her2 was significantly associated with disease recurrence, overall survival and cause-specific survival. Discussion: Her2 expression can be considered as a mortality rate indicator in patients with metastatic prostate cancer and higher risk of disease recurrence [increase in PSA level] has been suggested in these patients with over expression of Her2. Conclusion: Despite various differences in included articles regarding methodology, results, sample size and individual differences, Her2 overexpression showed a positive relation with poor prognosis of prostate cancer regarding survival and disease recurrence.

## Public Health Systems Research

### **Health production and determinants of health systems performance in WHO Eastern Mediterranean Region.**

Pourreza, Abolghasem; Alipour, Vahid; Arabloo, Jalal; Bayati, Mohsen; Ahadinezhad, Bahman

Tehran University of Medical Sciences - School of Public Health - Department of Health Management and Economics

**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (5): 368-374

**Keywords:** Health Services-standards; Efficiency, Organizational-standards; Life Expectancy-trends; Infant Mortality; Regression Analysis

**Abstract:** This descriptive-analytical study used data envelopment analysis to evaluate the technical efficiency [TE] of health systems in Member States of the World Health Organization Eastern Mediterranean Region during 2004-2011. Life expectancy and infant mortality were used as outputs. Per capita total expenditure on health, and number of physicians, nurses and midwives and hospital beds per 1000 people were used as inputs. The determinants of TE of the health systems were examined using a regression model. United Arab Emirates and Somalia had the most efficient health systems with a TE score of 1. Djibouti and Libya had the most inefficient health systems, with TE scores of 0.346 and 0.435, respectively. The most important determinants of TE were the level of education and gross domestic product per capita. The relationship between unemployment and out-of-pocket health expenditure was not significantly associated with TE of the health systems. To improve TE of the health systems, countries should focus on individuals' empowerment in education and income level, rather than only on providing healthcare services.

## Pyelonephritis

### diagnosis

#### **Urine alpha-1-microglobulin reliability in the diagnosis of pyelonephritis: a systematic review.**

Azarfar, Anoush; Ravanshad, Yalda; Esmaeili, Mohammad; Sherbaf, Fatemeh Ghane; Naseri, Mitra; Noferesti, Fahime  
Mashhad University of Medical Sciences - School of Medicine - Department of Pediatric

**Reviews in Clinical Medicine [RCM]** 2015; 2 (4): 174-177

**Keywords:** Alpha-Globulins-urine; Urine; Child

**Abstract:** Introduction: Pyelonephritis is known as kidney inflammation due to bacterial infection which should be diagnosed and treated promptly. In this article, we decided to systematically review the diagnostic value and reliability of evaluating urine excretion low molecular weight protein alpha-1-microglobulin [A1M]. Methods: PubMed and Scopus were searched for the relevant articles about the efficacy of urine alpha-1-microglobulin assays in the diagnosis of pyelonephritis in children. The search strategy was microglobulin AND pyelonephritis. No language and date limitations were included in this review. Results: A total of 16 articles were retrieved from PubMed and 23 articles from Scopus. After studying the abstracts, only 5 articles were selected, which specifically studied the efficacy of alpha-1-microglobulin in the diagnosis of pyelonephritis in children. Discussion: A1M is not an acute phase protein but its concentration alters in several clinical conditions. Conclusion: Evaluating the urine concentration of A1M is a noninvasive and cost effective strategy with the diagnostic capability for urinary tract disorders such as early recognition of tubular damages during pyelonephritis.

## Pyoderma Gangrenosum

#### **Leech induced pyoderma gangrenosum in an ulcerative colitis patient: a case report.**

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**Middle East Journal of Digestive Diseases** 2016; 8 (1): 63-66

**Keywords:** Colitis, Ulcerative; Leeching

**Abstract:** Pyoderma gangrenosum [PG] is a painful skin lesion that results from excessive inflammatory response to a host of traumatic, inflammatory, or neoplastic processes in susceptible individuals. A clear pathogenetic mechanism as well as an exhaustive list of potential triggers for PG is yet to be fully characterized. This case documents the occurrence of pyoderma gangrenosum following leech-therapy in a patient who is a known case of ulcerative colitis and it deserves attention because leeches have been part of medical armamentarium since ancient times and have re-emerged in the last century relying on their ancient charm and modern research revealing potential benefits of several bioactive substances in their saliva.

## Pyrazines

#### **Potent anti-inflammatory activity of tetramethylpyrazine is mediated through suppression of NF- $\kappa$ .**

Chen, Wei; Chen, Weixiong; Zhu, Jinshui; Chen, Niwei; Lu, Yunmin

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 197-204

**Keywords:** Oxazolone; Colitis; NF-kappa B; Mice

**Abstract:** The purpose of the current study was to evaluate the anti-inflammatory activity of tetramethylpyrazine on oxazolone-induced colitis mice. Spleen mononuclear cells [SMC], lamina propria mononuclear cells [LPMC] and peripheral blood mononuclear cells [PBMC] were isolated from oxazolone-induced colitis and normal mice. The colitis cells treated by oxazolone were randomly divided into model, low dose, middle dose and high dose groups treated with 0, 0.5, 1.0 and 2.0 g/L tetramethylpyrazine, respectively. The apoptotic rate of SMC and LPMC in the oxazolone-induced group was lower than that in the normal group. Compared with model group, apoptotic rate of SMC was significantly increased in the high dose group, while the apoptotic rate of LPMC in the middle dose group was increased. Compared with SMC, LPMC and PBMC of normal group, the mRNA level of nuclear factor kappa B [NF- $\kappa$ B], transcription factor-activated protein-1 [AP-1] and nuclear factor of activated T cells [NF-AT] were higher in model group. Tetramethylpyrazine inhibited the increase of NF- $\kappa$ B, AP-1 and NF-AT mRNA induced by oxazolone. For SMC, LPMC and PBMC there was significant difference in the mRNA level of AP-1 among the three different doses of

tetramethylpyrazine treated groups. However, no significant difference was observed in the mRNA levels of NF-AT and NF- $\kappa$ B between normal and middle groups. Tetramethylpyrazine promoted the apoptotic rate of SMC and LPMC in-vitro, and suppressed the expression of transcription factors in SMC, LPMC and PBMC isolated from oxazolone-induced colitis mice. The study provides a novel insight into the mechanism behind the effect of etramethylpyrazine on colitis.

## Quinazolines

### Synthesis, biological evaluation and docking analysis of some novel quinazolin derivatives as antitumor agents.

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 179-196

**Keywords:** Molecular Docking Simulation; Antineoplastic Agents

**Abstract:** Different acid chlorides [2a-d] reacted with anthranilic acid to produce 2-substituted-3, 1-benzoxazin-4-one [3a-d] which was used as starting material to synthesize some condensed and non-condensed heterocyclic compounds by reaction with nitrogen nucleophiles e.g., hydrazine hydrate, and formamide. Some of the newly synthesized analogues were chosen to evaluate their cytotoxic activity against human liver carcinoma cell lines [HePG2- MCF7- A549]. The docking and the cytotoxic activity results revealed that nearly all of the compounds containing N-phenyl aniline showed significant inhibition for the three cell lines.

## Quinolines

### Design, synthesis and biological evaluation of 4-[imidazolylmethyl]-2-[4-methylsulfonyl phenyl]-quinoline derivatives as selective COX-2 inhibitors and in-vitro anti-breast cancer agents.

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 169-177

**Keywords:** Cyclooxygenase 2 Inhibitors; Breast Neoplasms; In Vitro Techniques; Aromatase

**Abstract:** A new group of 4-[Imidazolylmethyl] quinoline derivatives possessing a methylsulfonyl COX-2 pharmacophore at the para position of the C-2 phenyl ring were designed and synthesized as selective COX-2 inhibitors and in-vitro anti breast cancer agents. In-vitro COX-1 and COX-2 inhibition studies showed that all the compounds were potent and selective inhibitors of the COX-2 isozyme with IC<sub>50</sub> values in the potent range 0.063-0.090 microM, and COX-2 selectivity indexes in the 179.9 to 547.6 range. Molecular modeling studies indicated that the methylsulfonyl substituent can be inserted into the secondary pocket of COX-2 active site for interactions with Arg[513]. Cytotoxicity of quinolines 9a-e against human breast cancer MCF-7 and T47D cell lines were also evaluated. All the compounds 9a-e were more cytotoxic against MCF-7 cells in comparison with those of T47D which express aromatase mRNA less than MCF-7 cells. The data showed that the increase of lipophilic properties of substituents on the C-7 and C-8 quinoline ring increased their cytotoxicity on MCF-7 cells and COX-2 inhibitory activity. Among the quinolines 9a-e, 4-[[1H-imidazol-1-yl]methyl] 7,8,9,10-tetrahydro-2-[4-methylsulfonylphenyl]-benzo[h]quinoline [9d] was identified as the most potent and selective COX-2 inhibitor as well as the most cytotoxic agent against MCF-7 cells.

## Renal Dialysis

### Assessment of dialysis adequacy using urea reduction ratio and KT/V in four pediatric hemodialysis centers in Baghdad.

Ahmed, Ali; Azat, Nariman F. Ahmed; Ali, Shatha

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**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 522-529

**Keywords:** Blood Urea Nitrogen; Kidney Failure, Chronic; Cross-Sectional Studies; Surveys and Questionnaires; Pediatrics

**Abstract:** Background: The 21<sup>st</sup> century has been set to enhance dialysis adequacy. Numerous studies have confirmed the association between the delivered dose of hemodialysis and patients outcomes. There is thus some evidence regarding the relationship between dialysis dose and quality of life. Objective: To assess dialysis adequacy

using [Urea Reduction Rate and KT/V], and to determine the association between dialysis dose and different Hemodialysis characteristics in children with End Stage Renal Failure undergoing Hemodialysis. Method: This was an observational cross-sectional study that was conducted for three months, from [November 2014 till January 2015]; we enrolled 50 children with End Stage Renal Failure in four hemodialysis centers in Baghdad. Samples for blood urea [predialysis and postdialysis] were drawn to calculate the adequacy dose. Results: Thirty two [64%] of patients were male and 18 [36%] were females; with male to female ratio was [1.7:1]. The mean urea reduction ratio and Kt/V were 59.63 +/- 7.345% and 1.29 + 0.275, respectively, with fair dialysis adequacy. A Kt/V less than 1.2 and a urea reduction ratio less than 65% were found in 42%, and 38% of the hemodialysis patients, respectively. There was a significant correlation between dialysis dose and [Blood flow rate, Dialysis hours, Dialysis frequency, /week and Effective surface area], while there was insignificance correlation with [gender, age, volume of ultrafiltration. Conclusion: Our results were better than neighbor countries with fair dialysis adequacy. It is important to regularly measure the parameters of dialysis adequacy in order to assess whether targets are achieved in accordance with K/DOQI guidelines.

### **Uremic pruritus in haemodialysis patients; prevalence, severity and possible associations.**

Al Saedi, Ali J. Hashim; Ghassan, Ban; Al Alawchi, Sabah  
University of Baghdad - Nephrology and Transplant Center

**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 548-554

**Keywords:** Pruritus; Prevalence; Severity of Illness Index; Renal Insufficiency, Chronic; Uremia

**Abstract:** Background: Uremic pruritus is a common distressing complication of end stage renal disease and it is a common problem in dialysis patients. It causes serious discomfort and skin damage, negatively affects the quality of life. Objective: To determine the prevalence, severity of pruritus and possible association with the laboratory parameters in patients with chronic renal disease on haemodialysis. Methods: One hundred and three patients on chronic haemodialysis were included in this study. Fasting blood sugar, urea, creatinine, albumin, alkaline phosphatase, parathyroid hormone, sodium, potassium, chloride, calcium, phosphorus, calcium x phosphorus product, were determined. Results: Of the 103 patients included in the study the, 79 patients [76.7%] had pruritus of whom, 27 [34.1%] had mild pruritus, 30 [37.9%] had moderate and 22 [27.8%] had severe pruritus. No significant association [ $p > 0.05$ ] was found between pruritus and each of sex, age, frequency and duration of haemodialysis. There was a significant association [ $p < 0.05$ ] between duration of haemodialysis and pruritus onset. No significant difference [ $p > 0.05$ ] in the FBS, urea, creatinine, albumin, parathyroid hormone, alkaline phosphatase, sodium, potassium, chloride, calcium, phosphorus, calcium phosphorus product, average among patients who had no pruritus, mild, moderate and severe pruritus. A significant positive correlation [ $p < 0.05$ ] was found between severity of pruritus in pruritic patients and age. Conclusion: We concluded that there was a significant association between duration of haemodialysis and pruritus onset more over the age had a significant positive correlation with the pruritus in pruritic patients.

## Renal Insufficiency, Chronic

### **Contrast-induced nephropathy: a review of literature.**

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**Reviews in Clinical Medicine [RCM]** 2015; 2 (4): 212-215

**Keywords:** Contrast Media; Risk Factors; Review Literature as Topic; Apoptosis; Practice Patterns, Physicians'

**Abstract:** Today, radiological procedures using intravascular iodinated contrast media are being widely used for the diagnoses and treatment of various diseases, which highlight one of the main etiologies of contrast-induced nephropathy and hospital-acquired renal failure. Contrast-induced nephropathy development is associated with longer hospital stay, increase in both short- and long-term morbidity and mortality, in addition to greater health care costs. The pathogenesis of contrast-induced nephropathy has not yet been fully explained in detail; however it is clear that the root concept is medullary hypoxia-induced renal tubular damage. Chronic kidney disease and diabetes mellitus are the two most important intrinsic predisposing factors to contrast-induced nephropathy. As no treatment can specifically target contrast-induced nephropathy, the main goal for clinicians is prevention of the disease. While the best approach for achieving this goal is still controversial, optimization of the patients' circulating volume remains the only proven strategy to date. As contrast-induced nephropathy is a potentially preventable clinical condition, its better understanding will lead to better prevention of this disease. Hereby, we aimed to discuss contrast-induced nephropathy from 7 different aspects in clinical practice: 1] clinical aspect, 2] prevalence, 3] pathophysiology, 4] contrast agents and renal cell apoptosis, 5] different contrast media, 6] prevention, and 7] treatment.

## Respiratory Tract Infections

### **Acute lower respiratory tract infection; therapeutic role of zinc in patients.**

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Independent Medical College - Department of Pediatrics

**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 65-70

**Keywords:** Zinc-therapeutic uses; Zinc-pharmacology; Acute Disease

**Abstract:** ABSTRACT: Zinc is an essential micronutrient with catalytic role in over a hundred specific metabolic enzymes in human metabolism regulates the expression of the metallothionein gene, apoptosis and synaptic signaling and needed for many aspects of immune system. Thus the zinc supplementation in patients with acute lower respiratory tract infections might have potential benefits. Objectives: To evaluate the efficacy of zinc supplementation in patients with acute lower respiratory tract infections. Study design: Quasi experimental study. Setting: Study was conducted in the pediatrics department Independent hospital Faisalabad; the indoor patients meeting the inclusion criteria from 26<sup>th</sup> January to 25<sup>th</sup> July 2013 were included in study. Material and methods: 100 children meeting the inclusion criteria were included in the study which were divided into two groups with random allocation i.e. Group A [Odd number] and Group B [Even number]. Group A was given zinc supplementation 20mg of elemental zinc for 14 days. Along with antimicrobials, oxygen and antipyretics for fever while 50 children in Group B were given with antimicrobials. Oxygen and antipyretics for fever without zinc. Results: Baseline clinical parameters were comparable in both groups at admission. Outcome measures considered were duration of fever, tachypnea, chest indrawings and total duration of hospital admission. Effect of zinc supplementation is significant with p-value of less than 0.05 for duration of tachypnoea and chest indrawings and total duration of hospital admission while result showed p-value equal to 0.05 that is just significant for duration of fever.

## Rotavirus

### **The incidence of infants with rotavirus enteritis combined with lactose intolerance.**

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**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 321-323

**Keywords:** Lactose Intolerance; Rotavirus Infections; Incidence; Enteritis

**Abstract:** This study was to research the incidence of infants with rotavirus enteritis combined with lactose intolerance and the clinical effect of low lactose milk powder for infantile rotavirus enteritis with lactose intolerance. The control group were 126 cases of infants with diarrhea randomly collected from our hospital at the same period, which their rotavirus detection was negative. The observation group was 185 cases of infants with rotavirus, which was tested to be positive. Through the urine galactose determination, 62 cases of the control group were positive and 124 cases of the observation group were positive. Then 124 cases of infants with rotavirus combined with lactose intolerance were randomly divided into two groups. 60 cases in the control group were given rehydration, correction of acidosis, oral smecta, Intestinal probiotics and other conventional treatment, then continued to the original feeding method. While, 64 cases in the treatment group, on the basis of routine treatment, applied the low lactose milk feeding. To observe the total effective rate for the two groups. The incidence of lactose intolerance in children with rotavirus enteritis [67.03%] was significantly higher than that of children with diarrhea [49.2%], which was tested to be negative. And the difference was statistically significant [p<0.5]. In the aspect of reducing the frequency of diarrhea, and diarrhea stool forming time, the treatment group has the obvious superiority. The total effective rate was 95.4% for treatment group, which was higher than that in the control group [76.7%], the difference was statistically significant [P<0.05]. Conclusion: Infants with rotavirus enteritis was easier to merge with lactose intolerance. The low lactose milk powder could improve the therapeutic effectively and could reduce the duration of disease, and restored to normal diet for 2 weeks feeding time.

## Rumex

### **Antioxidant evaluation for *Urtica urens*, *Rumex cyprius* and *Borago officinalis* edible wild plants in palestine.**

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**Pakistan Journal of Pharmaceutical Sciences** 2016; 29 (1 Supp.): 325-330

**Keywords:** Borago; Plants, Edible; Plants, Medicinal; Phytotherapy; Antioxidants; Plant Extracts

**Abstract:** Natural plants products are one of the famous and commonly utilized remedies used in fighting diseases. This study was conducted to evaluate antioxidant activity of plants commonly used in Palestine [*Urtica urens*, *Rumex cyprius* and *Borago officinalis*]. Free radical scavenging activity method was evaluated by using 2,2-diphenyl-1-picryl-hydrazylhydrate. The result show that the overall antioxidant activity of *Rumex cyprius* was the highest among the plants, followed by *Urtica urens*, and *Borago officinalis*; respectively. The [IC<sub>50</sub>] values of the methanolic extracts were 29.70 +/- 0.60 microg/ml, 5.07. +/- 0.49 microg/ml, 39.92 +/- 0.52 microg/ml for *Urtica urens*, *Rumex cyprius* and *Borago officinalis* respectively. The results of this study revealed that these edible plants have high antioxidant activity and therefore they can provide natural sources of antioxidants and can be useful in preventing various diseases including cancer. These exhibited properties propose that such plants extracts can possibly be used as natural preservatives in the food and pharmaceutical industries and further characterization of *Rumex cyprius* constituents is needed.

## Salvia

### **Effect-directed analysis for the antioxidant compound in *Salvia verticillata*.**

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 241-246

**Keywords:** Plants, Medicinal; Plant Extracts; Phytotherapy; Antioxidants

**Abstract:** *Salvia* genus is one of the largest genera of the Lamiaceae family. Its species have been used for a wide variety of disorders in the local traditional medicine systems. Therefore, the genus has been the subject of several phytochemical and biological studies. The aim of the study was to identify the major antioxidant compound[s] from the methanol extract of *Salvia verticillata* using activity-guided fractionation. The crude extract showed strong antioxidant activities in DPPH and beta-carotene/linoleic acid tests. The ethyl acetate fraction also exhibited a potent free radical scavenging activity compared to the other fractions. Further fractionation and purification of the ethyl acetate fraction using chromatography methods yielded a compound with high antioxidant capacity. The isolated active compound was determined as chrysoeriol. It showed a dose-dependent free radical scavenging activity with an IC<sub>50</sub> [DPPH scavenging] value of 93.32 [80.23 - 108.57] mM.

## Schizophrenia

### **Negative correlation between serum S100B and leptin levels in schizophrenic patients during treatment with clozapine and risperidone: preliminary evidence.**

Hendouei, Narjes; Hosseini, Seyed Hamzeh; Panahi, Amin; Khazaeipour, Zahra; Barari, Fatemeh; Sahebhasagh, Adeleh; Ala, Shahram

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 323-330

**Keywords:** S100 Calcium Binding Protein beta Subunit-blood; Leptin-blood; Clozapine-therapeutic uses; Risperidone-therapeutic uses; Antipsychotic Agents; Statistics as Topic

**Abstract:** Recently, extensive efforts have been made to understand the rate of energy expenditure and the weight gain associated with atypical antipsychotic treatment, including identification of markers of obesity risk. In recent years, leptin, an adipocyte hormone, has gained significant interest in psychiatric disorders. S100B has been considered as a surrogate marker for astrocyte-specific damage in neurologic disorders. Also, S100B has been detected in adipose with concentration as high as nervous tissue as a second release source. In this study we evaluated the relationship between S100B and leptin in schizophrenic patients under treatment with clozapine and risperidone. This study included 19 patients meeting the DSM-IV-TR criteria for schizophrenia, having body mass index [BMI] of 16- 25 kg/m<sup>2</sup> and suffering schizophrenia for more than 3 years and from this study. Twenty five healthy controls were group

matched for age and gender whose BMI was 16-25 kg/m<sup>2</sup>. Serum S100B and leptin levels and positive and negative symptom scale [PANSS] were assessed at admission and after six weeks. During the study, S100B showed a strong and negative correlation with leptin [ $r = -0.5$ ,  $P = 0.01$ ]. Also, there were negative correlation between serum S100B level and PANSS negative subscale after 6 weeks of treatment [ $r = -0.048$ ,  $P = 0.8$ ]. Positive correlation between leptin level and PANSS suggested a potential role for leptin which can mediate the link between antipsychotic induced weight gain and therapeutic response in schizophrenia.

## Scleroderma, Localized

### diagnosis

#### The role of infection in morphea disease.

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**Reviews in Clinical Medicine [RCM]** 2015; 2 (4): 187-189

**Keywords:** Borrelia; Cytomegalovirus; Incidence; Infection

**Abstract:** Morphea is a skin disorder that leads to the sclerosis of the dermis and subcutaneous tissue. In epidemiologic studies, the incidence rate of approximately 0.4 to 2.7 per 100,000 people has been reported that is equal in adults and children. Based on clinical findings of disease and presentations, morphea disease has been divided into four major types including plaque-type, linear, generalized and a miscellaneous group with morphologically distinct phenotypes. Overall, plaque-type is the most common type of morphea. This disease is characterized by three main histopathologic features that include deposition of collagen in the dermis sometimes with extension to subcutis, vascular changes and an inflammatory cell infiltration, particularly in early lesions. Morphea is a multifactorial process that its main underlying cause is not completely known but the most common causes related to the genesis of morphea including trauma, radiation, medications, infection, autoimmunity and microchimerism. In this paper, we review the literature about the role of infection in the genesis of morphea.

## Sex Differentiation

#### Clinical spectrum of disorders of sexual differentiation.

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 199-203

**Keywords:** Disorders of Sex Development; Karyotyping; Retrospective Studies

**Abstract:** Objective: To describe the mode of presentation and causes of the disorders of sexual differentiation in patients presenting in the Endocrine Clinic. Study Design: Observational study. Place and Duration of Study: The Endocrine and Diabetes Unit of Jinnah Postgraduate Medical Centre [JPMC], Karachi, from July 2012 to July 2014. Methodology: Patients with phenotypic, psychosocial gender confusion or absence of gender appropriate secondary sexual maturation were enrolled in the study. Patients having chronic systemic disease, as cause of delayed puberty, were excluded from the study. SPSS 13 was used to evaluate the data. Results: A total of 48 patients registered in the study with mean age of 19.9 +/- 8 years. Female gender was assigned to 28 [58.3%] of which 8 [28.57%] had genital ambiguity. Male gender was assigned to 20 [41.66%] patients at the time of birth and 7 [35%] of them had ambiguous genitalia. Karyotyping could be done in 36 [75%] patients of which 17 [47.2%] were females and 19 [52.7%] were males. Karyotypic gender of the 19 [48.57%] male patients was 46 XX, 46 XY and 47 XXY in 4 [21.05%], 5 [26.3%] and 10 [52.6%] patients, respectively with 9 Klinefelter syndrome. Karyotypic gender of 17 [47.42%] female patients were 46 XX, 46 XY and 45 X0; in 5 [29.4%], 3 [17.64%] and 9 [52.9%] patients, respectively. Conclusion: Disorder of sexual development constitutes a small but difficult area of endocrinology with disastrous consequences, especially if assigned wrong sex at birth. Mode of presentation of these cases was diverse ranging from delayed puberty, to gender confusion, to pregnancy in a male. Eventually in an adult patient assignment or reassignment of gender identity was primarily the patient's prerogative.

## Silymarin

### pharmacology

#### **Evaluation of hepatoprotective effect of silymarin among under treatment tuberculosis patients: a randomized clinical trial.**

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**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 247-252

**Keywords:** Tuberculosis, Pulmonary; Antitubercular Agents-adverse effects; Drug-Related Side Effects and Adverse Reactions; Drug-Induced Liver Injury; Liver-drug effects

**Abstract:** Hepatic toxicity is the most serious adverse effect of anti tuberculosis drugs. This study was performed to evaluate efficacy of silymarin as a hepatoprotective herbal agent. In a randomized double blind clinical trial 70 new cases of pulmonary tuberculosis were divided into two groups. The intervention group was assigned to receive silymarin and the control group received placebo. Tuberculosis was treated by classic regimen consisting isoniazid, rifampin, pyrazinamide and ethambutol. No statistically significant difference was found between the two groups concerning the frequency of drug induced liver injury or mild elevation of liver enzymes. Silymarin was safe without any major side effect. Our results showed no significant hepatoprotective effect of silymarin among patients on tuberculosis treatment.

## Stents

#### **Forgotten ureteral stents: an avoidable morbidity.**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 208-212

**Keywords:** Ureteral Obstruction; Prospective Studies; Retention (Psychology); Surveys and Questionnaires; Morbidity

**Abstract:** Objective: To assess the clinical presentation of forgotten ureteral stents and highlight the etiological factors resulting in the retention of these stents. Study Design: Observational study. Place and. Duration of Study: Department of Urology, Armed Forces Institute of Urology, Rawalpindi, from January 2010 to June 2011. Methodology: Thirty-eight patients, with forgotten ureteral stents, retained for more than 6 months duration, were enrolled. A detailed evaluation was performed, along with the questions regarding the patients' opinion about the ureteral stents. They were specially asked whether they knew about the stents or were they formally informed regarding the stents. Subsequently, the patients were managed according to their clinical condition. Results: The male to female ratio was 2.1:1 aged 23 - 69 years, mean being 40.24 +/- 12.59 years. The time of presentation after the ureteral stenting was 7 - 180 months [mean = 28.89 +/- 33.435 years]. Seven patients [18.4%] reported with chronic kidney disease, including ESRD in two cases. Recurrent UTI was seen in 28 cases [73.6%], calculus formed over the stents in 20 cases [52.6%], and stent fragmented in 5 patients [13.1%]. Majority of patients, [n = 23, 60.5%], were not even aware of the placement of these stents while 8 [21.0%] knew but were reluctant about its removal. In 3 cases [7.8%], the relatives knew about the stent but never informed the patients. The stent had been removed in 2 cases [5.2%], but the other broken fragment was missed. One case [2.6%] each had a misconception about the permanent placement of the stents like cardiac stents and regarding degradation of the stents in situ. Conclusion: Forgotten ureteral stents produce clinical features ranging from recurrent UTI to ESRD. This preventable urological complication is primarily due to the unawareness or ignorance of the patients and their relatives regarding the stent.

## Students, Medical

#### **Role of skill laboratory training in medical education - students' perspective.**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 195-198

**Keywords:** Education, Medical; Cross-Sectional Studies; Education; Perception; Medical Laboratory Science; Surveys and Questionnaires



**Abstract:** Objective: To evaluate the perceptions of medical students regarding their training utilizing facilities provided in the skill laboratory of a public sector medical college. Study Design: Cross-sectional study. Place and Duration of Study: Army Medical College, Rawalpindi, from October to December 2014. Methodology: Students of final year MBBS who had undergone skill laboratory training were recruited through convenience purposive sampling. Students not exposed to skill laboratory training were excluded. Data collection tool was a questionnaire having 23 questions with responses on Likert Scale as strongly disagree, disagree, agree and strongly agree coded as 1, 2, 3 and 4, respectively. Data was analysed on SPSS version 22. Results: There were 78 [57%] male and 59 [43%] female students out of 137, with mean age of 22.59 +/- 0.74 years. The response rate was 68.5%. Cronbach's Alpha test was 0.84 showing high reliability. The mean of sum of all the 23 items was 63.85 +/- 8.71, whereas item means was 2.78 +/- 0.38, reflecting a high inclination of students towards skill laboratory training. Frequency of students responding in favour of skill laboratory training was significantly high [p < 0.05]. Conclusion: Medical students perceived skill laboratory training as a favoured learning strategy as compared to practising on real patients for acquisition of various aspects of clinical skills, knowledge and attitude.

## classification

### [Medical students' perceptions of supporting pharmacology learning in English by key information prepared in Arabic]

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**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (5): 361-367

**Keywords:** Pharmacology; Personal Satisfaction; Learning-ethics; Surveys and Questionnaires

**Abstract:** We explored medical students' perceptions of supporting pharmacology self-learning in English by focused materials prepared in Arabic. This study targeted third-year medical students at the Arabian Gulf University in Bahrain [n= 183]. During the endocrine and metabolism subunit, which is taught in English, slides containing focused information in Arabic preceded detailed English ones. At the end of the subunit, students' perceptions were explored by a questionnaire and focus group discussions. Most participants reported that this intervention made pharmacology learning easier, improved confidence in drug selection, knowledge of adverse drug reactions, detection of response to medications and occurrence of adverse reactions. Most respondents thought that this intervention would help them during the clinical phase of their study and in communicating drug therapy to patients in Arabic. Supporting pharmacology learning in a foreign language with instructional materials prepared in a native language improved students self-reported learning and satisfaction.

## Sulfonamides

### pharmacology

#### Effect of Tamsulosin on stent related symptoms; a prospective study.

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Shaikh Zayed Hospital - Urology Department

**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 114-118

**Keywords:** Prospective Studies; Ureteral Obstruction; Lower Urinary Tract Symptoms; Stents

**Abstract:** Introduction: Cystoscopic intraluminal placement of ureteral stents has become a routine practice in urology. Ureteral stents preserve urine flow from the kidney to the bladder in cases of ureteral obstruction [intrinsic or extrinsic]. In patients with obvious ureteral obstruction, the placement of a ureteral stent will restart urine transport and protect the kidney from possible risks. Ureteral stents are troublesome in some patients and causes LUTS. Study Design: Prospective randomized controlled trial. Setting: Urology Department, Sheikh Zayed Hospital Lahore. Period: Six month started from August 2015 to December 2015. Material and Methods: 100 patients who were randomly divided into two equal groups. The patients were between 18 to 50 years of age of both gender undergo retrograde double-J ureteral stent placement. Before the double-J stent will be applied, all patients completed an International Prostate Symptom Score [IPSS] questionnaire for evaluation of lower urinary tract symptoms. Patients were divided in two groups on the basis of lottery method tamsulosin group [1] and placebo group [2]. Tamsulosin group patients was given tamsulosin post operatively and placebo group was given a placebo postoperatively. Results: There were total 100 patients who were enrolled in this study with a mean age of 42.63 +/- 6.24. There were 75[75%] were male while 25[25%] were female. The mean IPSS score at presentation was 2.47 +/- 1.43 and post treatment was 5.20 +/- 1.65. There was significant difference in IPSS score in control group with mean. 5.28 +/- 1.69 versus study as mean 2.22 +/- 1.05 group, p-value= 0.010. Conclusion: There is difference in lowering of IPSS score in the patients who are given tamsulosin versus those who were retained on placebo.

## Surgical Flaps

### **Current practice: the bilobed flap from the classic indication to cover a small defect on face to covering a large defect on the chest.**

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**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 220-222

**Keywords:** Skin Abnormalities; Wounds and Injuries; Head-surgery; Neck-surgery

**Abstract:** A variety of flaps are available to cover skin defects after surgery or trauma in the head and neck area. The bilobed flap is a double transposition flap commonly used in reconstruction of small-to-medium skin defects of the face where skin is less mobile. However, larger defects can also be effectively treated with a bilobed flap in certain cases. The classic indication to cover a small defect on the nose and covering a large skin-defect after tumour resection in the jugular notch. After sufficient mobilization, the defects could easily be closed with no wound complications and with very good aesthetic and functional outcome. The bilobed flap, as a local flap, is possible in suitable locations even for larger skin defects. In addition to the simplicity of the procedure, good aesthetic results can be expected.

## Temporomandibular Joint Dysfunction Syndrome

### **Temporomandibular joint pain syndrome; effect of occlusal splint therapy.**

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 81-84

**Keywords:** Occlusal Splints; Pain

**Abstract:** Introduction: The temporomandibular joint disorders TMD and their management is a problem in dentistry and complaints associated to this problem are pain in the area of joint and associated muscles along with limitations and clicking sounds during mandibular opening and closing. One of the popular method of treatment is splint therapy. Study design: It was longitudinal intervention study. Objectives: The purpose of this study is to assess about oral splint as an effective treatment for TMD patients. Period: Total study time for this study was about two years. Setting: Study was carried out in prosthodontics department of Sharif medical and dental college Lahore. Methodology: In the present study 40 patients were included the study. All patients were suffering from some psycho-social issue. Their maximum mouth opening MMO was measured and all of them were treated with occlusal splints. Results: There was significant improvement in MMO and reduction in pain.75% patients responded to treatment very well, however, 22.5% responded moderately and 2.5% patients did not respond to treatment. Conclusion: Splint therapy is an effective way to treat TMD. Splint therapy along with some psychological rehabilitation of patients which may produce better results.

## Tobacco Use

### **prevention and control**

#### **Coverage of tobacco control in Jordanian newspapers: implications for strengthening the role of news media.**

Bader, Rasha K.; Shtaiwi, Aisha S.; Shihab, Rawan A.; Obeidat, Nour A.; Hawari, Feras I.

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**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (5): 342-350

**Keywords:** Tobacco-poisoning; News; Social Media-utilization; Newspapers as Topic; Decision Making-ethics

**Abstract:** News media play a critical role in tobacco control. To strengthen this role in Jordan, four, newspapers were searched and 1 145 articles between 2011 and 2015 were coded for mention of MPOWER topics and for tone of coverage [neutral, pro-, or anti-tobacco control]. Monthly counts, mention of tobacco control topics and the tones were examined. The monthly count of tobacco control-related news items showed an upward trend with an average monthly growth of 16%. Peaks in coverage were observed in synchrony with national tobacco control developments. 'Warn' was the topic most frequently mentioned [46%]. 'Protect' was the only topic that showed a statistically significant upward trend over time. A. pro-tobacco control tone was more prevalent than an anti-tobacco control or neutral tone. Thus, efforts are needed to enhance the newsworthiness of certain topics, boost influence on decision-makers and pre-empt industry interference.

## Tuberculosis

### **A case of tuberculosis and adenocarcinoma coexisting in the same lung lobe.**

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**International Journal of Mycobacteriology** 2016; 5 (1): 80-82

**Keywords:** Adenocarcinoma; Lung Neoplasms

**Abstract:** Tuberculosis and lung cancer rarely coincide together but have been proven to have a definitive link. In this case we describe tuberculosis and adenocarcinoma diagnosed together in the same lobe of the lung. The patient was found to have an epidermal growth factor receptor exon 19 deletion, which has been shown to have an association with tuberculosis.

### **Does intensified case finding increase tuberculosis case notification among children in resource-poor settings? A report from Nigeria.**

Oshi, Daniel C.; Chukwu, Joseph N.; Nwafor, Charles C.; Meka, Anthony O.; Madichie, Nelson O.; Oqbudebe, Chidubem L.; Onyeonoro, Ugochukwu U.; Ikebudu, Joy N.; Ekeke, Ngozi; Anyim, Moses C.; Ukwaja, Kingsley N.; Aguwa, Emmanuel N.

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**International Journal of Mycobacteriology** 2016; 5 (1): 44-50

**Keywords:** Child; Developing Countries; Awareness

**Abstract:** Objective/Background: Tuberculosis [TB] is a major cause of morbidity and mortality in developing countries. Passive case detection in national TB programmes is associated with low case notification, especially in children. This study was undertaken to improve detection of childhood TB in resource-poor settings through intensified case-finding strategies. Methods: A community-based intervention was carried out in six states in Nigeria. The creation of TB awareness was undertaken, and work aids, guidelines, and diagnostic charts were produced, distributed, and used. Various cadres of health workers and ad hoc project staff were trained. Child contacts with TB patients were screened in their homes, and children presenting at various hospital units were screened for TB. Baseline and intervention data were collected for evaluation populations and control populations. Results: Detection of childhood TB increased in the evaluation population during the intervention, with a mean quarterly increase of 4.0% [new smear positive [NSP], although the increasing trend was not statistically significant [chi<sup>2</sup> = 1.8; p < .179]]. Additionally, there was a mean quarterly increase of 3% for all forms of TB, although the trend was not statistically significant [chi<sup>2</sup> = 1.48; p < .224]. Conversely, there was a decrease in case notification in the control population, with a mean decline of 3% [all forms]. Compared to the baseline, there was an increase of 31% [all forms] and 22% [NSP] in the evaluation population. Conclusion: Intensified case finding combined with capacity building, provision of work aids/guidelines, and TB health education can improve childhood-TB notification.

### **Pseudotumoral form of soft-tissue tuberculosis of the wrist.**

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**International Journal of Mycobacteriology** 2016; 5 (1): 99-101

**Keywords:** Wrist; Mycobacterium tuberculosis

**Abstract:** Tuberculosis is a major public health problem in developing countries. Hand and wrist is a rare localization for extra-pulmonary tuberculosis, a pseudotumoral form of soft tissue tuberculosis of the wrist is exceptional. We report the case of a 45-year-old male presenting with a painful swelling of the dorsal aspect of the right wrist evolving for six months. Clinical study was evoking a ganglion cyst of the wrist. Intraoperatively a pseudotumoral mass with rice bodies was found, suggesting tuberculous tenosynovitis. The histopathological study revealed caseating giant cell granulomas with epithelioid cells. Cultures on Lowenstein-Jensen medium detected Mycobacterium tuberculosis. Synovectomy with removal of all the rice bodies followed by anti-tuberculous chemotherapy provided uneventful recovery.

## Tuberculosis Vaccines

### **Analysis of the DosR regulon genes to select cytotoxic T lymphocyte epitope specific vaccine candidates using a reverse vaccinology approach.**

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University of Delhi - Ds Kothari Center for Research and Innovation in Science Education - Department of Pulmonology  
**International Journal of Mycobacteriology** 2016; 5 (1): 34-43

**Keywords:** Bacterial Proteins; Regulon; Protein Kinases; Epitopes, T-Lymphocyte; Immunotherapy, Active; CD8-Positive T-Lymphocytes; Mycobacterium tuberculosis; Tuberculosis

**Abstract:** Objective/background: There is an urgent need for a more effective vaccine against Mycobacterium tuberculosis [Mtb]. Although CD4+ T cells play a central role in host immunity to Mtb, recent evidence suggests a critical role of CD8+ T cells in combating Mtb. In the present study, we have predicted HLA antigen class I binding peptides of DosR operon using an in-silico approach. This method is useful as an initial computational filtration of probable epitopes based on their binding ability and antigenicity. Methods: CD8+ epitopes were predicted by software NetMHC 3.4 and BIMAS. Self-peptides were found and excluded by indigenously developed Perl script. Antigenicity of promiscuous peptides was predicted using a Vaxijen server. The top Vaxijen scoring antigenic peptides were docked to globally relevant HLA allele using CABS dock and Hex program. Results: A total of 1436 overlapping nonamer peptides were generated which gave 46 promiscuous epitopes, 25 were predicted to be antigenic. Rv2627 epitope "SAFRPPLV" which gave the highest Vaxijen score of 1.9157 and showed binding to all the three HLA loci. The top Vaxijen scoring antigenic peptides were docked and had significant interactions with residues of the HLA class I molecule indicating them to be good cytotoxic T lymphocyte epitopes. Conclusion: Our study has generated several promiscuous antigenic peptides capable of binding to major histocompatibility complex class I with high affinity. These epitopes can become part of a postexposure multivalent subunit vaccine upon experimental validation.

## Tuberculosis, Miliary

### **Selective immunoglobulin M deficiency in an adult with miliary tuberculosis: a clinically interesting coexistence: a case report and review of the literature.**

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**International Journal of Mycobacteriology** 2016; 5 (1): 106-110

**Keywords:** Immunoglobulin M-deficiency; Dysgammaglobulinemia; Review Literature as Topic

**Abstract:** Selective immunoglobulin M [SIgM] deficiency is a rare form of dysgammaglobulinemia. Here we are reporting a 31 year old man with multiple cervical and testicular abscesses who was investigated and found to have miliary tuberculosis [MTB] with primary SIgM deficiency [Serum IgM: 17.4 mg/dL] and was treated aggressively with anti-tuberculous treatment.

## Tuberculosis, Multidrug-Resistant

### **Previous treatment, sputum-smear nonconversion, and suburban living: the risk factors of multidrug-resistant tuberculosis among Malaysians.**

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**International Journal of Mycobacteriology** 2016; 5 (1): 51-58

**Keywords:** Sputum; Case-Cotrol Studies; Risk Factors; Antitubercular Agents

**Abstract:** The number of multidrug-resistant tuberculosis patients is increasing each year in many countries all around the globe. Malaysia has no exception in facing this burdensome health problem. We aimed to investigate the factors that contribute to the occurrence of multidrug-resistant tuberculosis among Malaysian tuberculosis patients. An unmatched case-control study was conducted among tuberculosis patients who received antituberculosis treatments from April 2013 until April 2014. Cases are those diagnosed as pulmonary tuberculosis patients clinically, radiologically, and/or bacteriologically, and who were confirmed to be resistant to both isoniazid and rifampicin through drug-sensitivity testing. On the other hand, pulmonary tuberculosis patients who were sensitive to all first-line antituberculosis drugs and were treated during the same time period served as controls. A total of 150 tuberculosis patients were studied, of which the susceptible cases were 120. Factors found to be significantly associated with the occurrence of multidrug-resistant tuberculosis are being Indian or Chinese [odds ratio 3.17, 95% confidence interval 1.04-9.68; and odds ratio 6.23, 95% confidence interval 2.24-17.35, respectively], unmarried [odds ratio. 2.58, 95%

confidence interval 1.09-6.09], living in suburban areas [odds ratio 2.58, 95% confidence interval. 1.086.19], are noncompliant [odds ratio 4.50, 95% confidence interval 1.71-11.82], were treated previously [odds ratio 8.91, 95% confidence interval 3.66-21.67], and showed positive sputum smears at the 2[nd] [odds ratio 7.00, 95% confidence interval 2.46-19.89] and 6[th] months of treatment [odds ratio 17.96, 95% confidence interval 3.51-91.99]. Living in suburban areas, positive sputum smears in the 2[nd] month of treatment, and was treated previously are factors that independently contribute to the occurrence of multidrug-resistant tuberculosis. Those with positive smears in the second month of treatment, have a history of previous treatment, and live in suburban areas are found to have a higher probability of becoming multidrug resistant. The results presented here may facilitate improvements in the screening and detection process of drug-resistant patients in Malaysia in the future.

## Tuberculosis, Oral

### **Primary oral tuberculosis in a patient with lepromatous leprosy: diagnostic dilemma.**

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**International Journal of Mycobacteriology** 2016; 5 (1): 102-105

**Keywords:** Leprosy, Lepromatous; Coinfection

**Abstract:** Pulmonary tuberculosis [TB] is the most common form of TB. Primary infection can also affect the pharynx, cervical lymph node, intestine, or oral mucosa. Historically, the observed incidence of concomitant infection with leprosy and TB is high. However, reports of concomitant infection in modern literature remain scarce. Most cases reported in the literature had borderline/lepromatous leprosy and pulmonary tuberculosis. Extrapulmonary tuberculosis is reported in only 3.2% of leprosy cases. To the best of our knowledge, this is the first case report of primary oral tuberculosis of the tongue in a patient with lepromatous leprosy with Type 2 lepra reaction. The patient was referred to Directly Observed Treatment, Short-Course clinic and started on Category I treatment. She received oral prednisolone for lepra reaction, which was subsequently tapered and stopped, however, she continued to receive other antileprotic drugs [thalidomide and clofazimine]. The patient's general condition improved and she is on regular follow up.

## Tuberculosis, Pulmonary

### **Genetic diversity of Mycobacterium tuberculosis complex strains isolated from patients with pulmonary tuberculosis in Anambra State, Nigeria.**

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**International Journal of Mycobacteriology** 2016; 5 (1): 74-79

**Keywords:** Mycobacterium tuberculosis; Genetic Variation; Tandem Repeat Sequences

**Abstract:** In this study, we analyzed Mycobacterium tuberculosis complex [MTC] genetic diversity in Anambra State, Nigeria based on spoligotyping followed by 5-loci exact tandem repeats [ETRs]. Spoligotyping of 180 MTC strains isolated in 2009-2011 from pulmonary tuberculosis [TB] patients led to a total of 31 distinct patterns. A comparison with the SITVIT2 international database showed that all the 31 patterns could be classified as Shared-types [SITs] in this database; briefly, 26/31 SITs [n = 174 isolates] matched a preexisting shared-type in the database, whereas 5/31 SITs [n = 6 isolates] were newly created due to 2 or more strains belonging to an identical new pattern within this study [S1T3396] or after a match with an orphan in the database [S1T3397, S1T3398, S1T3399 and S1T3400]. A total of 18/31 SITs containing 167 or 92.8% isolates were clustered within this study [2-89 isolates per cluster] while 13/31 SITs contained unique strains. Using VNTR typing, a total of 36 distinct patterns were identified; 27 patterns [n = 157 isolates] matched a pattern already reported in the SITVIT2 database. Combination of both the methods generated 47 combined patterns for the 180 strains: 17 belonged to clustered isolates [n = 127 isolates or 70.5%] while 30 corresponded to as many unique strains [note 23 strains could not be typed using 5-loci ETRs]. No correlation was found between the spoligotyping pattern and the HIV status of the patient or drug sensitivity of the strain. This study showed that the LAM10-CAM prototype SIT61 accounted for highest number of isolates [n = 89] in Anambra State, showing its relative contribution to the TB burden in the study.

**Tuberculous patients; diagnostic significance of fasting blood glucose [AFB]**

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 45-49**Keywords:** Diabetes Mellitus; Blood Glucose; Fasting; Prospective Studies; Sputum

**Abstract:** Abstract: The objective of present study was to screen out the diabetes mellitus by fasting blood glucose [FBG] in patients with pulmonary tuberculosis. Background: Diabetes mellitus and Tuberculosis has strong co-relation and complicates each other. Diabetes increases the risk of infections including tuberculosis particularly pulmonary TB, Therefore making antituberculous drugs ineffective. Similarly M. tuberculous infection predisposes to diabetes mellitus and complicates it further. Patients simultaneously having, both diabetes mellitus and tuberculosis, the chances of multiple systems involvement becomes high. The delayed or ineffective response to anti tuberculous chemotherapy raises suspicion of underlying diabetes mellitus. There for such patients should be screen out by fasting blood glucose [FBG] levels so as to treat the treat the diabetes as well. Objectives: The objective of this study was to screen out diabetes in pulmonary TB patients by fasting blood glucose level [FBG] especially where the treatment response of anti-tuberculous drug is delayed or poor. Study Design: This was prospective observational study. Place and Duration of Study: This study was conducted at DHQ-teaching hospital Mirpur Azad Kashmir from February 2013 to December 2014 .This included both in and outdoor patients. Inclusion criteria: 1. Age range of tuberculous patients between 20-40 years. 2. Pulmonary tuberculous patients. Exclusion criteria: 1. Pulmonary TB patients with co-existent diabetes mellitus. 2. TB patients with renal failure, autoimmune diseases like rheumatoid arthritis, SLE, immunosuppressant drugs and steroid were excluded. Material and Methods: Ninety-five diagnosed patients of pulmonary TB were selected. The questionnaire form was designed according to objective of study. This Included with patients having pulmonary TB with but still not screened out for diabetes. The questionnaire contained history, general physical and systemic examination, especially respiratory system. Risk factors like family history of diabetes and TB were evaluated. The socio-economic status of patients was carefully assessed. Routine investigations like complete blood count, ESR, fasting and random blood glucose were done. Three morning sputum specimens and fasting blood glucose [FBG] were main tools of diagnosis of TB. The data thus obtained, was subjected to SPSS verssion-20 for statistical analysis. Results: A total of 95 patients with pulmonary tuberculosis were selected including in and outdoor patients. Out of them, 65 patients were males, and 30 were females. Age group mainly ranging between 20-40 of years. Screening of diabetes in 95 tuberculous patients was done by fasting blood glucose. Seventeen patients [17], twelve [12] male and five [05] female were screened out to be diabetic. Conclusion: Screening by fasting blood glucose is an effective tool in diagnosis of diabetes mellitus in tuberculous patients.

## Uremia

**A comparison between hybrid therapy and standard triple therapy for helicobacter pylori eradication in patients with uremia: a randomized clinical trial.**

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Mazandaran University of Medical Sciences - Gut and Liver Research Center - Department of Nephrology.

**Middle East Journal of Digestive Diseases** 2016; 8 (1): 39-43**Keywords:** Helicobacter pylori; Helicobacter Infections-therapy; Renal Dialysis

**Abstract:** Background: The prevalence of peptic ulcer disease in hemodialysis patients is more than the general population. They are also more prone to complications including upper gastrointestinal bleeding. The aim of this study was to compare the efficacy of 14 days hybrid regimen with 14 days triple therapy for Helicobacter pylori [H. pylori] eradication in hemodialysis patients. Methods: Forty hemodialysis patients with naïve H.pylori infection were randomized to receive either hybrid regimen [pantoprazole 40 mg + amoxicillin 500 mg, both twice a day during the first 7 days, followed by pantoprazole 40 mg + amoxicillin 500 mg + clarithromycin 500 mg + tinidazole 500 mg, all twice a day, for the second 7 days, or standard triple therapy including pantoprazole 40 mg, clarithromycin 500 mg, and amoxicillin 500 mg, all twice a day for 14 days. H.pylori eradication was assessed by fecal H.pylori antigen test 8 weeks after the treatment. Results: All the patients completed the study. According to both intention to treat and per-protocol analyses, H.pylori eradication rates were 100% [95% confidence interval [CI]: 100] in those who received hybrid therapy and 70% [95% CI: 69.4 - 70.8] in those who were treated by standard triple therapy [p=0.02]. Severe adverse effects were not reported by any patient; however, mild adverse effects were more frequent in those who received standard triple therapy [p<0.05]. Conclusion: Hybrid regimen could achieve ideal H. pylori eradication rates with low rates of adverse effects.

## Urinary Tract Infections

### etiology

#### **Urinary tract infections; etiological profile and antimicrobial susceptibility patterns of uropathogens.**

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 10-14

**Keywords:** Urinary Tract Infections-epidemiology; Escherichia coli; Microbial Sensitivity Tests

**Abstract:** Background: Urinary tract infections [UTIs] constitute important bacterial disease which contributes to significant morbidity world-wide. Empirical treatment in patients suffering from UTI depends upon the local knowledge of common microorganisms responsible for UTI in that geographical area as well as their antimicrobial susceptibility patterns. Objectives: To determine the frequency and antimicrobial susceptibility of uropathogens which are responsible for urinary tract infections. Study Design: Experimental study. Setting: Department of Pathology, Frontier Medical and Dental College and Mohi Ud Din Islamic Medical College. Period: January 2015 to June 2015. Material and methods: Total of 113 patients were included in the study. Urine samples were cultured on MacConkey's agar and Cysteine Lactose Electrolyte Deficient [CLED] agar. Micro-organisms were identified using standard tests and antimicrobial susceptibility was checked using modified Kirby Bauer method following Clinical and Laboratory Standards Institute [CLSI] guidelines. Results: The average age of patients was 32.19 +/- 16.47 years. Gram negative organisms accounted for majority of cases, about 89 [78.76%] cases. Escherichia coli was the most common micro-organism which was found in 50 [44.24%] cases followed by Staphylococcus aureus in 24 [21.24%], Enterobacter spp. in 19 [16.81%], Klebsiella spp. in 11 [9.73%] and Proteus spp. in 9 [7.96%] cases. E. coli was sensitive to imipenem and ciprofloxacin and was resistant to amoxicillin/clavulanic acid and gentamicin. Conclusion: Gram negative organisms are largely responsible for UTIs and E. coli being the most common etiological agent. E. coli is sensitive to commonly prescribed drugs for UTI like ciprofloxacin.

## Uterine Rupture

#### **Rupture of uterus [fundus]; spontaneous rupture of an unscarred uterus [fundus], at 35 weeks 01 day of gestation of a multigravida.**

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 119-122

**Keywords:** Uterine Retroversion; Obstetric Labor Complications; Rupture, Spontaneous; Pregnant Women; Gravidity

**Abstract:** Rupture of a gravid uterus is a surgical emergency. Predisposing factors include a scarred uterus. Spontaneous rupture of an unscarred uterus during pregnancy is a rare occurrence. We hereby present the case of a spontaneous complete uterine rupture at a gestational age of 35 weeks 01 day in a 25 years old patient. The case was managed at the Civil Hospital Bahawalpur. She had past history of one uterine curettage for endometrial polyp one year back. She presented with mild abdominal pains of sudden onset. After conservative management for 10 hours in hospital she suddenly developed severe abdominal pains with P/V bleeding. On ultrasound scan, uterine rupture was diagnosed and an emergency laparotomy was done. The ruptured amniotic sac with baby and placenta were found in the peritoneal cavity with rupture of the uterine funds. Spontaneous uterine fundus rupture usually occurs when there is an upper segment uterine scar. This case report shows that past history of curettage is a risk factor for the presence of uterine scar.

## Vaccination

### standards

#### **[Audit on the quality of school vaccination in the region of Monastir [Tunisia]]**

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**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (5): 383-387

**Keywords:** Clinical Audit; Immunization Programs-standards; Schools; Hand Disinfection-methods; Refuse Disposal; Health Education

**Abstract:** We conducted a clinical audit by observing 55 vaccinators in schools in the governorate of Monastir in 2014. We used a set of criteria by referring to the national immunization programme. The cold chain was respected in most cases. Accumulators, the collector of syringes and needles, cotton balls soaked in alcohol and emergency box were available in 85.5%, 76.4%, 98.2% and 41.8% of cases respectively. Hand washing before immunization session was performed in 29.1% of cases. Waste disposal according to the hygiene rules was done by 40 agents. Health education of students regarding the interest of vaccination was done in 67.3% of cases. Therefore, improvements in hand hygiene practice and education are recommended.

## Vancomycin

### blood

#### **A prospective study to assess vancomycin serum concentrations in pediatric patients with current dosing guidelines.**

Arfa, Peyman; Karimi, Abdollah; Tabatabaei, Sedigheh Rafiei; Fahimzad, Alireza; Armin, Shahnaz; Sistanizad, Mohammad Shahid Beheshti University of Medical Sciences - Mofid Children's Hospital - Department of Clinical Pharmacy

**IJPR-Iranian Journal of Pharmaceutical Research** 2016; 15 (1): 341-346

**Keywords:** Prospective Studies; Vancomycin-pharmacology; Cross-Sectional Studies; Drug Monitoring; Pediatrics

**Abstract:** Concerns about increasing bacterial resistance to vancomycin, have caused the adult treatment guidelines to recommend higher trough concentrations based on the type and location of infectious disease. Although these recommendations are not specific to children, the values can be extrapolated. This prospective study was designed to evaluate efficacy of current vancomycin dosing recommendations to achieve therapeutic trough serum concentration in pediatric patients. Laboratory data, vancomycin dosing and subsequent serum concentrations of children in a community teaching pediatrics hospital were collected and analyzed. Trough serum levels were determined at steady state and compared with Infectious Disease Society of America [IDSA] 2011 guidelines for the treatment of Methicillin-Resistant Staphylococcus Aureus [MRSA] infections. In a prospective observational, cross-sectional study in a university medical center in Tehran, Iran, 50 patients, who received vancomycin for more than 4 doses, were recruited and their trough vancomycin level was determined. The mean age and creatinine clearance of patients were 5.47 +/- 4.24 and 87.5 +/- 31.25, respectively. Eleven [22%] patients received vancomycin at 40 mg/kg/day [low dose] and 39 [78%] at 60 mg/kg/day [high dose]. Considering trough goals of 10-14 and 15-20mg/L in low and high dose groups, serum levels in 91% [73% sub-therapeutics] and 85% [69% sub-therapeutics] of patients were not in recommended therapeutic range, respectively. This study has shown that current recommended vancomycin dosing regimens in pediatric patients [40-60 mg/kg/day], resulted in sub-therapeutic serum concentrations in our study population.

## Venous Thrombosis

#### **Deep venous thrombosis; mean platelet volume, D-Dimer and doppler sonography. patients of surgical wards of liaquat university hospital.**

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**Professional Medical Journal-Quarterly [The]** 2016; 23 (1): 20-24

**Keywords:** Mean Platelet Volume; Fibrin Fibrinogen Degradation Products; Ultrasonography, Doppler; Patients' Rooms; Case-Control Studies



**Abstract:** Objectives: To study mean platelet volume [MPV] in deep venous thrombosis [DVT] as evaluated, by D-Dimmer and Doppler sonography. Study Design: Case control study. Place and Duration: Department of Surgery, Liaquat University of Medical and Health Sciences Jamshoro/Hyderabad from May 2013 to April 2014. Subjects and Methods: A sample of 106 subjects; 50 controls and 53 diagnosed patients of DVT were studied. DVT patients were included according to inclusion and exclusion criteria and after results of Sonography and D-Dimer were available. The Blood samples were collected in bottles containing sodium citrate as anticoagulant. MPV was generated by Sysmex KX 21 hematology analyzer. Informed consent was sought from the volunteer subjects. The Data was analyzed using SPSS version 21.0. Statistically significance was defined at p-value of  $\leq 0.05$ . Results: Mean platelet volume was elevated in deep venous thrombosis patients which were confirmed by clinical examination, sonography and D-Dimer. MPV was elevated in cases;  $10.0 \pm 0.7$ fl compared to controls;  $9.55 \pm 0.63$ fl [ $p=0.001$ ]. D-Dimmer was elevated in deep venous thrombosis patients [ $p=0.0001$ ]. Age, gender and platelet counts did not revealed any significant differences between cases and controls [ $p>0.05$ ]. Conclusion: The present study reports elevated MPV in patients suffering from deep venous thrombosis and it is concluded that MPV may be considered as a risk factor for DVT.

## Ventricular Function, Left

### Long term effect of permanent right ventricular pacing on left ventricular systolic function.

Al Mousawi, Ali Abdul Amir Mohammad; Al Saedi, Kasim Abbas Ismail; Haleem, Mahmood Riyadh; Hadi, Sabah. Ibn Al-Bitar Hospital for Cardiac Surgery

**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 487-491

**Keywords:** Cardiac Resynchronization Therapy; Systole; Heart Ventricles

**Abstract:** Background: Right ventricular apical pacing is associated with alterations of left ventricular contraction sequence and dilatation and may have a deleterious effect on left ventricular function. Objective: The study investigates the correlation between left ventricular function and long term right ventricular pacing. Methods: In this study, 80 patients with permanent right ventricular apical [VDD and DDD] randomized to assess left ventricular systolic function particular LVEF% primary end point was LVEF% after 1 year of pacing. Results: In this study, the mean LVEF% was reduced after hear of right ventricular pacing from  $[67.47 \pm 2.94$  to  $55.89 \pm 8.41$ , p value 0.0001], with absolute reduction of about 12%. Patients with LV systolic dysfunction [EF% less than or equal to 45%] which constitute 10 patients [12.5%] have mean baseline LVEF%  $[66.70 \pm 4.03$  reduced to  $3.50=6.38$ , P value 0.0001]. Cumulative percentage of RV pacing and duration are predictors of LVEF% reduction. Conclusion: Conventional right ventricular apical pacing resulted in a significant reduction in the left ventricular ejection fraction, particularly in patients with high percentage of right ventricular pacing and should be suspected in any patients after long term pacing of right ventricular. Functional rather than topographic criterion should be considered for optimal pacing.

## Vitamin D

### analogs and derivatives

#### Vitamin D and respiratory disorder.

Hushmand, Mahnaz; Behmanesh, Fatemeh; Ahanchian, Hamid; Khalesi, Maryam; Ataei, Alireza Mashhad University of Medical Sciences - Ghaem Hospital - Departments of Pediatrics

**Reviews in Clinical Medicine [RCM]** 2015; 2 (4): 195-199

**Keywords:** Respiration Disorders; Vitamin D Deficiency; Immunomodulation; Asthma

**Abstract:** The active form of vitamin D is synthesized in some body organs following sun exposure and dietary intake. Vitamin D exhibits its major and critical effects not only through regulation of calcium and phosphate metabolism but also by influencing on respiratory and immune system. Serum concentrations of 25-hydroxyvitamin D below the optimum limit lead to vitamin D insufficiency or maybe deficiency. These inappropriate concentrations of vitamin D lead to different types of pulmonary diseases such as viral and bacterial respiratory infection, asthma, chronic obstructive pulmonary disease, and cancer. In this review we described the association between vitamin D deficiency and severe therapy resistant asthma. We also reviewed the underlying molecular mechanism of vitamin D deficiency in children with severe therapy resistant asthma. Based on current information, future clinical trial are needed to study the role of vitamin D supplementation on different groups of patients with severe asthma including infants, children of school age, and ethnic minorities.

## blood

### Vitamin D status in hemodialysis patients, a single center study.

Mandi, Adnan Abduladeem; Al Sodani, Mohammed Hannon; Al Windawi, Suad; Al Sodani, Mohammed Hannon.  
Baghdad Teaching Hospital - Department of Nephrology

**IPMJ-Iraqi Postgraduate Medical Journal** 2015; 14 (4): 499-505

**Keywords:** Renal Dialysis; Vitamin D Deficiency; Cross-Sectional Studies; Kidney Failure, Chronic

**Abstract:** Background: Vitamin D deficiency and insufficiency are common in patients with End Stage Renal Disease [ESRD]. Vitamin D has been found to have beneficial effects on bone, cardiovascular and immune functions. There are little data about vitamin D levels in Iraqi patients on hemodialysis. Objective: This study was conducted to determine the vitamin D status of Iraqi patients with ESRD on hemodialysis. Patients and Methods: This study is a cross sectional study conducted at The Dialysis Center/ Baghdad Teaching Hospital. An eighty four patients with End Stage Renal Disease [ESRD] on regular Hemodialysis [HD] enrolled in the study from January to February 2013. The basic data of the patients had been obtained [age, weight, duration on HD [months], infection with HCV, drugs doses for calcium and alphacalcidol Blood samples were collected at the start of the HD session from the vascular access for calcium, phosphorus, albumin, cholesterol, uric acid and Vitamin 25[OH] D3 blood levels. These samples were sent for analysis to the Teaching Laboratories at Medical City. Patients were considered as vitamin D3 insufficient if the levels were between 10 and 30 ng/ml deficient if the levels were less than 10 ng/ml and sufficient if it was. >30 ng/ml. We assess the correlation between vitamin D3 level and other variables tested in the study. Results: The mean age of the patients was 49.8 +/- 13.2 years, of these, 40 [47.6%] were females and 44 [52.4%] were males. Fifty five [65%] patients were infected with hepatitis C virus and 29 [35%] were not the median dose of calcium carbonate was 1086.1 +/- 400 mg per day, The median dose of alphacalcidol was 1.9 +/- 1.1 mcg/week. Mean weight was 68.8 +/- 17.5 kg. Median duration of HD was 24.8 + 20.8 months [range 2-72 months]. The patients were on twice a week [6-8 hours/week] HD sessions. Mean of serum albumin, corrected calcium, phosphorus, Uric acid cholesterol were 3.0 +/- 0.8 g/dl., 8.6 +/- 1.4 mg/dl, 3.9 +/- 1.4 mg/dl, 6.1 + 2.4 mg/dl, 149.9 + 39.2 mg/dl respectively. Mean vitamin 25 [OH] D3 level was 33.02 + 7.2 ng/ml. 60 [71.4%] patients were vitamin D3 sufficient, 23 [27.4%] patients were vitamin D3 insufficient and only one [1.2%] patient was vitamin D3 deficient. There was a significant correlation between vitamin 25 [OH] D3 levels and albumin, duration of HD, virology status while there was no correlation between weight, sex ,age, activity, calcium, cholesterol, uric acid, phosphorus ,dose of alphacalcidol or calcium carbonate and vitamin 25 [OH] D3 level. Conclusion: The vitamin D insufficiency found in about one quarter of patients on hemodialysis while deficiency found only in 1.2% of patients and more than two third of patients had sufficient vitamin D3. There was a significant correlation between vitamin 25 [OH] D3 levels and albumin, duration of HD, virology status.

## Vitiligo

### diagnosis

#### Vitiligo in children: a distinct subset.

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Combined Military Hospital [CMH] - Department of Dermatology

**JCPSP-Journal of the College of Physicians and Surgeons Pakistan** 2016; 26 (3): 173-176

**Keywords:** Clinical Medicine; Surveys and Questionnaires; Child

**Abstract:** Objective: To determine clinical profile of vitiligo in children. Study Design: A descriptive study. Place and Duration of Study: Combined Military Hospital, Abbottabad, from January 2010 to June 2013. Methodology: All new patients below the age of 15 years, clinically diagnosed to have vitiligo, were included in the study. A detailed history was obtained, thorough physical examination was performed, and findings were recorded on a specially designed proforma for each patient separately. Computer programme. SPSS-14 was used to manage and analyze the data. Results: Out of 157 children, 68 [43.3%] were males and 89 [56.7%] were females. Mean age at onset was 6.55 +/- 3.43 years. The disease started before 10 years of age in 123 [78.3%] children. Average duration of the disease was 1.48 +/- 1.87 years. Average duration of the disease was 1.73 +/- 2.09 years in male children and 1.29 +/- 1.67 years in female children. Generalized vitiligo was the commonest type [n = 83, 52.9%]. The disease started most commonly from head and neck [n = 75, 47.8%]. A family history of vitiligo was found in forty-nine [31.2%] children, Koebner phenomenon in 39 [24.8%] children and associated autoimmune or endocrine diseases in 8 [5.1%] patients. Conclusion: Majority of the children developed the disease before 10 years of age. Generalized vitiligo was the commonest type. Childhood vitiligo was more common in female children.

## World Health Organization

### organization and administration

#### **Roadmap 2017-2021: stronger organization and better response to the needs of Member States in the Eastern Mediterranean Region.**

Fikri, Mahmoud

WHO Regional Office for the Eastern Mediterranean

**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (5): 327-328

**Keywords:** Committee Membership; Mediterranean Region-ethnology

## Zika Virus Infection

### epidemiology

#### **Zika in Singapore: implications for Saudi Arabia.**

Ahmed, Qanta A.; Memish, Ziad A.

Winthrop University Hospital - Division of Pulmonary Disease and Critical Care Medicine

**EMHJ-Eastern Mediterranean Health Journal** 2017; 23 (4): 311-313

**Keywords:** Zika Virus-pathogenicity; Aedes-pathogenicity; Zika Virus Infection-diagnosis; Zika Virus Infection-mortality.

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**El Didamony, Gamal**  
HEPATITIS B (epidemiology)

**El Hechmi, Zouhaier**  
DEPRESSIVE DISORDER, TREATMENT-  
RESISTANT

**El Hefny, Noor Eldeen Abdelazeem M.**  
KIDNEY TRANSPLANTATION

**El kalhy, Yaser Ahmed**  
LUNG NEOPLASMS (diagnosis)

**El Melegy, Tarek T.**  
MYOCARDIAL INFARCTION

**El Meligy, Manal M.S.**  
DERMATOGLYPHICS

**El Mhamdi, Sana**  
VACCINATION (standards)

**El Serwy, Walaa S.**  
QUINAZOLINES

**El Shelty, Mohamd A.**  
HEPACIVIRUS

**El Sherif, Wafaa T.**  
MYOCARDIAL INFARCTION

**El Wakiel, Hesham Mahmoud**  
CARCINOMA, HEPATOCELLULAR

**El Yassin, Hedef Dhafir**  
BREAST NEOPLASMS

**Elbadry, Mahmoud I.**  
TUBERCULOSIS, MILIARY

**Elbahrawy, Ashraf**  
HEPATITIS B (epidemiology)

**Eldin, Waleed S.**  
NURSES

**Elkazaz, Amany**  
CARCINOMA, HEPATOCELLULAR

**Elmaghloub, Reem**  
HEPATITIS B (epidemiology)

**Elsaied, Abdel Rahman A.**  
HEPATITIS B

**Elsayed, Hoda M.**  
MALATHION

**Emadi Kochak, Hamid**  
MENINGITIS, BACTERIAL

**Emam, Mona H.**  
PLANT LEAVES

**Entezari, Maliheh**  
CURCUMIN (pharmacology)

**Esfandiari, Samaneh**  
LEAD POISONING

**Eshraghi, Ali**  
RENAL INSUFFICIENCY, CHRONIC

**Eslamizad, Samira**  
POLYCYCLIC HYDROCARBONS, AROMATIC

**Esmaeili, Mohammad**  
PYELONEPHRITIS (diagnosis)

**Esmail, Mona A.**  
HEPATITIS C (virology)

**Fadel, Bashir A.**  
HEPATECTOMY

**Fahim, Amin**  
DIABETES, GESTATIONAL (diagnosis)

**Fahimi, Fanak**  
SILYMARIN (pharmacology)

**Fahimia, Shirin**  
BURNS (therapy)

- Fahimzad, Alireza**  
VANCOMYCIN (blood)
- Faisal, Muhammad**  
FINASTERIDE (therapeutic uses)
- Faizi, Mehrdad**  
ALOE
- Fakheri, Hafez**  
UREMIA  
HELICOBACTER PYLORI
- Fallahnezhad, Somayeh**  
COLORECTAL NEOPLASMS
- Fararouie, Mohammad**  
PHYSICIANS, FAMILY (standards)
- Farhadi, Ensieh**  
CISPLATIN
- Farhangdoost, Fatemeh**  
SCLERODERMA, LOCALIZED (diagnosis)
- Farnia, Parissa**  
LATENT TUBERCULOSIS
- Farokhnejad, Somayeh**  
RENAL INSUFFICIENCY, CHRONIC
- Farrahi, Fereydoun**  
OCULAR HYPERTENSION (therapy)
- Faruque, Ahmad Vaqas**  
ANUS, IMPERFORATE
- Fazlollahi, Narges**  
ESOPHAGEAL ACHALASIA
- Fikri, Mahmoud**  
WORLD HEALTH ORGANIZATION (organization and administration)
- Firdous, Samar**  
C-REACTIVE PROTEIN
- Gaballah, Hanaa Hibshy**  
NITRIC OXIDE SYNTHASE TYPE III
- Gadalla, Ahmad**  
CURCUMIN (pharmacology)
- Gadallah, Mohsen**  
NURSES
- Gamal, Yasser**  
HEPATITIS C, CHRONIC
- Ganesan, Vithiya**  
TUBERCULOSIS, ORAL
- Genena, Shaimaa E.**  
PRECURSOR CELL LYMPHOBLASTIC LEUKEMIA-LYMPHOMA
- Geng, Xiaolin**  
OSTEOMYELITIS (diagnosis)
- Georghiou, Sophia B.**  
MYCOBACTERIUM TUBERCULOSIS
- Ghamarchehreh, Mohammad Ebrahim**  
NON-ALCOHOLIC FATTY LIVER DISEASE
- Ghanayem, Naglaa M.**  
PRECURSOR CELL LYMPHOBLASTIC LEUKEMIA-LYMPHOMA
- Ghasemi, Ali**  
DERMOID CYST
- Ghasemi, Seyed Ramin**  
PERSONALITY DISORDERS (psychology)
- Ghassan, Ban**  
RENAL DIALYSIS
- Ghatari, Ali Rajabzadeh**  
INSURANCE, HEALTH
- Ghodsi, Raziieh**  
QUINOLINES
- Gilan, Nader Rajabi**  
PERSONALITY DISORDERS (psychology)
- Gohil, Tejas P.**  
MYCOBACTERIUM TUBERCULOSIS
- Gomes, Ana Paula Chaves Sobral**  
MYCOBACTERIUM
- Goyal, Madhu**  
TUBERCULOSIS, PULMONARY
- Guder, Aytac**  
MOMORDICA CHARANTIA
- Gui, Linyan**  
ROTAVIRUS
- Habib, Aamir**  
VITILIGO (diagnosis)
- Hadi, Sabah**  
VENTRICULAR FUNCTION, LEFT
- Haeri, Ali**  
PRIMULA
- Haghighi, Alireza**  
CURCUMIN (pharmacology)
- Haider, Muhammad Ijlal**  
GASTRECTOMY
- Hajifathali, Abbas**  
CYCLOSPORINE (therapeutic uses)
- Hajimehdipoor, Homa**  
BURNS (therapy)
- Hakim, Sally A.**  
NURSES
- Haleem, Mahmood Riyadh**  
VENTRICULAR FUNCTION, LEFT

**Hamandi, Yasir Mohammed Hasan**  
CEREBRAL HEMORRHAGE

**Hamid, Saeed**  
LIVER NEOPLASMS

**Hammoodi, Yahya Kareem**  
ABDOMINAL INJURIES

**Hanganu, Daniela**  
GENISTA

**Hani, Umme**  
CANDIDIASIS, VULVOVAGINAL (therapy)  
GALACTANS

**Hanif, Maliha**  
IMMUNIZATION

**Hantour, Abdelateef**  
HEPATITIS B (epidemiology)

**Hantour, Osamah**  
HEPATITIS B (epidemiology)

**Hany, Ahmed M.**  
HEPACIVIRUS

**Hao, Dongqin**  
HEMOGLOBIN A, GLYCOSYLATED

**Haridi, Mostafa A.**  
KIDNEY FAILURE, CHRONIC

**Haroon, Hussain**  
LIVER CIRRHOSIS

**Hasaballah, Ayman E.**  
ARTERIAL OCCLUSIVE DISEASES

**Hashemi, Mehrdad**  
CURCUMIN (pharmacology)

**Hashemi, Seyed Jalal**  
HEMANGIOMA, CAVERNOUS

**Hashemi, Sima**  
CURCUMIN (pharmacology)

**Hashemian, Maryam**  
NAILS

**Hashim, Alaa**  
HEPATITIS B (epidemiology)

**Hashim, Rizwan**  
STUDENTS, MEDICAL

**Hassan, Howayda Ismail**  
HEPATITIS C, CHRONIC

**Hassan, Waleed Attia**  
ENDOSCOPIC ULTRASOUND-GUIDED FINE  
NEEDLE ASPIRATION

**Hassanein, Hassan A.**  
TUBERCULOSIS, MILIARY

**Hatamie, Amir**  
N-METHYL-3,4-  
METHYLENEDIOXYAMPHETAMINE

**Hawari, Feras I.**  
TOBACCO USE (prevention and control)

**Hekmatdoost, Azita**  
NAILS

**Hendouei, Narjes**  
SCHIZOPHRENIA

**Heydari, Behrooz**  
MENINGITIS, BACTERIAL

**Hing, Stephen**  
EYE ABNORMALITIES

**Hoffner, Sven**  
LATENT TUBERCULOSIS

**Hojati, Samaneh**  
UREMIA

**Hojati, Yavar Shams**  
GLYCOPROTEINS

**Homae, Fatemeh**  
BREAST NEOPLASMS

**Hosseini, Seyed Hamzeh**  
SCHIZOPHRENIA

**Hosseini, Vahid**  
UREMIA

**Hosseini, Zeinab Zare**  
DELIVERY OF HEALTH CARE

**Hu, Yulian**  
LACTOSE (pharmacokinetics)  
ROTAVIRUS  
CROSSINFECTION (prevention and control)

**Huang, Glen**  
TUBERCULOSIS

**Huang, Nannan**  
JAUNDICE, NEONATAL (diagnosis)

**Huang, Ying**  
MACROLIDES

**Huang, Zhifang**  
ACONITUM

**Humam, Mariam A.A.**  
METRORRHAGIA

**Hushmand, Mahnaz**  
VITAMIN D (analogs and derivatives)

**Hussain, Altaf**  
MENIERE DISEASE (drug therapy)

**Hussain, Maqbool**  
MITRAL VALVE STENOSIS

- Hussain, Syed Vaqar**  
GASTRECTOMY
- Hussein, Ahmed Manea**  
HERNIA, INGUINAL
- Hussein, Moustafa Thabet**  
LUNG NEOPLASMS (diagnosis)
- Ibrahim, Iman Hassan**  
BREAST NEOPLASMS
- Ibrahim, Salah**  
HEPATECTOMY
- Idoko, Patrick**  
ANTITUBERCULAR AGENTS (adverse effects)
- Idriss, Naglaa K.**  
LIVER CIRRHOSIS
- Ikebudu, Joy N.**  
TUBERCULOSIS
- Imam, Hala Mostafa Kamel**  
PANCREATIC NEOPLASMS (diagnosis)
- Ionut, Ioana**  
CHROMONES
- Iqbal, Mohammad Zafar**  
DIABETIC FOOT (diagnosis)
- Isa, Samson E.**  
ANTITUBERCULAR AGENTS (adverse effects)
- Ismail, Huwida M.**  
HEPACIVIRUS
- Ismail, Saber Abdelrahman**  
NITRIC OXIDE SYNTHASE TYPE III
- Jabeen, Rukhshanda**  
SEX DIFFERENTIATION
- Jaffri, Juliana Md.**  
METFORMIN
- Jafri, Syed Aoun Muhammad**  
IMMUNIZATION
- Jafri, Wasim**  
LIVER NEOPLASMS
- Jahan, Nazish**  
ARTEMISIA ABSINTHIUM
- Jahangir, Syed**  
HEPATITIS C, CHRONIC
- Jalali, Amir**  
N-METHYL-3,4-METHYLENEDIOXYAMPHETAMINE
- Jamal, Akmal**  
VENOUS THROMBOSIS
- Jameel, Watheq I.**  
NEPHROSIS, LIPOID
- Jamil, Amer**  
ARTEMISIA ABSINTHIUM
- Jamil, Muhammad Imran**  
FINASTERIDE (therapeutic uses)
- Jaradat, Nidal Amin**  
RUMEX
- Jasim, Ali Hussein**  
PANCREATIC NEOPLASMS
- Javed, Irum**  
MYCOBACTERIUM TUBERCULOSIS
- Jeddian, Alireza**  
HEPATITIS B (epidemiology)
- Jimoh, Hafsat O.**  
ANTITUBERCULARAGENTS (adverse effects)
- Jonaidi Jafari, Nematollah**  
NON-ALCOHOLIC FATTY LIVER DISEASE
- Joudi, Marjan**  
ANASTOMOSIS, SURGICAL (methods)
- Kadir, Nur Ayuni**  
MYCOBACTERIUM SMEGMATIS
- Kadry, Eman**  
CURCUMIN (pharmacology)
- Kamaludin, Fadzilah**  
TUBERCULOSIS, MULTIDRUG-RESISTANT
- Kamal, Samir**  
KIDNEY FAILURE, CHRONIC
- Kamalinejadd, Mohammad**  
ALOE
- Kambli, Priti**  
MYCOBACTERIUM TUBERCULOSIS
- Kamel, Kamel Ben Salem**  
VACCINATION (standards)
- Kamel, Mahmoud M.**  
BREAST NEOPLASMS
- Kamireddy, Haripriya**  
INFANT HEALTH
- Kamla Pathak**  
NORFLOXACIN (therapeutic uses)
- Kanwal, Fatima**  
FASTING (physiology)
- Karimi, Abdollah**  
VANCOMYCIN (blood)
- Karimzadeh, Iman**  
MENINGITIS, BACTERIAL
- Karupaih, Ashok**  
INFANT HEALTH

- Kassem, Emad M.M.**  
QUINAZOLINES
- Kazerooni, Parvin A.**  
PHYSICIANS, FAMILY (standards)
- Kelani, Abd Alla Ismail**  
KIDNEY FAILURE, CHRONIC
- Keshtkar, Abbasali**  
HEPATITIS B (epidemiology)
- Keyvanfardb, Mohsen**  
CAPTOPRIL
- Khajeamiri, Alireza**  
N-METHYL-3,4-  
METHYLENEDIOXYAMPHETAMINE
- Khajehahmadi, Saeedeh**  
DERMOID CYST
- Khalesi, Maryam**  
VITAMIN D (analogs and derivatives)
- Khalil ur Rahman**  
ARTEMISIA ABSINTHIUM
- Khalil Ur Rehman**  
INTERFERON-ALPHA (therapeutic uses)
- Khalil, Mostafa S.**  
ARTERIAL OCCLUSIVE DISEASES
- Khalili, Hossein**  
MENINGITIS, BACTERIAL
- Khaliq, Tanweer**  
MYCOBACTERIUM TUBERCULOSIS
- Khan, Amer Hayat**  
DENGUE
- Khan, Farhan Raza**  
DENTAL RESTORATION, TEMPORARY
- Khan, Mah Muneer**  
CHOLECYSTECTOMY
- Khan, Muhammad Ahmad**  
OPERATING ROOMS
- Khan, Muhammad Alamgir**  
STUDENTS, MEDICAL  
LEARNING
- Khan, Muhammad Arif Mateen**  
ANUS, IMPERFORATE
- Khan, Muhammad Safdar**  
URINARY TRACT INFECTIONS (etiology)
- Khan, Nasir**  
GASTRECTOMY
- Khan, Nazeer**  
FASTING (physiology)
- Khan, Yusra Habib**  
DENGUE
- Khatamsaz, Sepideh**  
CURCUMIN (pharmacology)
- Khattab, Hany Mahmoud Helmy**  
PANCREATIC NEOPLASMS (diagnosis)
- Khazaepour, Zahra**  
SCHIZOPHRENIA
- Khedmat, Hossein**  
NON-ALCOHOLIC FATTY LIVER DISEASE
- Khedr, Eman M.**  
DIABETES MELLITUS, TYPE 2
- Kheirandish, Shervin**  
BREAST NEOPLASMS
- Khelifa, Emira**  
DEPRESSIVE DISORDER, TREATMENT-  
RESISTANT
- Khokhar, Nasir**  
INTERFERON-ALPHA (therapeutic uses)
- Khorbi, Adel**  
TUBERCULOSIS
- Khoshnia, Masoud**  
NAILS
- Khosropanah, Mohammad Hossein**  
CURCUMIN (pharmacology)
- Khwaja, Muhammad Athar**  
FINASTERIDE (therapeutic uses)
- Kobarfard, Farzad**  
POLYCYCLIC HYDROCARBONS, AROMATIC  
CISPLATIN
- Kobeisy, Mohammad Alyamany**  
PANCREATIC NEOPLASMS (diagnosis)
- Koc, Sema**  
MYOCARDIAL INFARCTION (diagnosis)
- Kotb, Dalia N.**  
HEPATITIS C (virology)
- Kouchak, Maryam**  
OCULAR HYPERTENSION (therapy)
- Krimib, Hasan**  
CAPTOPRIL
- Krishnan, Manju Y.**  
MYCOBACTERIUM TUBERCULOSIS
- Kruczak, Katarzyna**  
LATENT TUBERCULOSIS (diagnosis)
- Kumar, Manish**  
NORFLOXACIN (therapeutic uses)
- Lawson, Lovett**  
TUBERCULOSIS, PULMONARY
- Li, Baolin**  
CRANIOCEREBRAL TRAUMA (therapy)

- Li, Chengjian**  
CRANIOCEREBRAL TRAUMA (therapy)
- Li, Na**  
CATHETERIZATION, PERIPHERAL
- Li, Yuanyuan**  
MACROLIDES
- Liang, Qiudong**  
OSTEOMYELITIS (diagnosis)
- Liu, Bin**  
CATHETERIZATION, PERIPHERAL
- Liu, Chunlei**  
CYSTECTOMY (methods)
- Liu, Hong**  
PHOSPHOCREATINE
- Liu, Jingyan**  
LACTOSE (pharmacokinetics)  
ROTAVIRUS
- Liu, Minghao**  
MACROLIDES
- Liu, Ning**  
MACROLIDES
- Lodhi, M. Omar Khan**  
C-REACTIVE PROTEIN
- Louis, Dina**  
LIPID REGULATING AGENTS
- Lu, Tan**  
OSTEOMYELITIS (diagnosis)
- Lu, Yuhong**  
MACROLIDES
- Lu, Yunmin**  
PYRAZINES
- Luo, Heng**  
ACONITUM
- Ma, Zhanmin**  
LACTOSE (pharmacokinetics)  
ROTAVIRUS  
CROSSINFECTION (prevention and control)
- Madichie, Nelson O.**  
TUBERCULOSIS
- Magdy, Mona**  
LIVER CIRRHOSIS
- Maghraby, Mohamed Hosam El Din H.M.**  
HEPATITIS B
- Maghsudlu, Mahtab**  
HEPATITIS B (epidemiology)
- Mahar, Saeed Ahmed**  
DIABETES MELLITUS
- Mahmood, Mohammed**  
ABDOMINAL INJURIES
- Mahmood, Syed**  
METFORMIN
- Mahmood, Tariq**  
LIVER CIRRHOSIS
- Mahmood, Zahed**  
MYCOBACTERIUM TUBERCULOSIS
- Mahmoud, Khaled**  
QUINAZOLINES
- Mahmoudi, Zahra**  
HEPATITIS B (epidemiology)
- Makboul, Mohamed**  
ACNE VULGARIS (therapy)
- Makhlough, Atieh**  
UREMIA
- Malekzadeh, Reza**  
HEPATITIS B (epidemiology)  
NAILS  
ESOPHAGEAL ACHALASIA
- Mallhi, Tauqeer Hussain**  
DENGUE
- Mandal, Jharna**  
TUBERCULOSIS, ORAL
- Mandal, Uttam Kumar**  
METFORMIN
- Mandi, Adnan Abdhuladeem**  
VITAMIN D (blood)
- Mandil, Ahmed**  
BIOETHICS (trends)
- Manjunath, C.N.**  
EBSTEIN ANOMALY
- Manzoor, Azhar**  
INFANT HEALTH
- Manzoor, Farida**  
RESPIRATORY TRACT INFECTIONS
- Marjani, Majid**  
SILYMARIN (pharmacology)
- Masjedizadeh, Abdol Rahim**  
HEMANGIOMA, CAVERNOUS
- Masroor, Muhammad**  
NEURALGIA, POSTHERPETIC
- Mastalerz, Lucyna**  
LATENT TUBERCULOSIS (diagnosis)
- Matlawska, Irena**  
DIOSMIN
- Mazhar ul Haque**  
DIABETES, GESTATIONAL (diagnosis)



- Medra, Ahmed M.**  
ARTHROCENTESIS
- Mehdizadeh, Mahshid**  
CYCLOSPORINE (therapeutic uses)
- Mehmood, Khalid**  
DIABETIC FOOT (diagnosis)
- Meka, Anthony O.**  
TUBERCULOSIS
- Mekky, Mohamed Abdel Sabour**  
ENDOSCOPIC ULTRASOUND-GUIDED FINE  
NEEDLE ASPIRATION
- Memish, Ziad A.**  
ZIKA VIRUS INFECTION (epidemiology)
- Memon, Abbas**  
HIP FRACTURES
- Memon, Abdul Salam**  
VENOUS THROMBOSIS
- Memon, Shakeel Ahmed**  
HIP FRACTURES
- Mersal, Rihab**  
KIDNEY FAILURE, CHRONIC
- Metwally, Nadia Abdel Sater**  
ENDOMETRIAL NEOPLASMS (diagnosis)
- Meybodi, Neda Mollakhali**  
FOOD
- Mhawes, Ali Abed**  
AMPULLA OF VATER
- Mikaeli, Javad**  
ESOPHAGEAL ACHALASIA
- Mirnajafi Zadehc, Javad**  
ALOE
- Mitwaly, Abo Bakr Abass**  
CESAREAN SECTION, REPEAT  
PREGNANCY IN ADOLESCENCE
- Mlynarek, Daria**  
DIOSMIN
- Mobin, Ahsan**  
LIVER CIRRHOSIS
- Mocan, Andrei**  
GENISTA
- Mohadjerani, Maryam**  
ILEX
- Mohamed, Adnan Ahmed**  
BILIARY TRACT DISEASES
- Mohamed, Amany O.**  
LIVER CIRRHOSIS
- Mohamed, Hanan O.**  
MYOCARDIAL INFARCTION
- Mohamed, Mostafa G.**  
POLYCYSTIC OVARY SYNDROME  
DIABETES MELLITUS, TYPE 2
- Mohamed, Neama A.**  
QUINAZOLINES
- Mohammadi, Omid**  
PERSONALITY DISORDERS (psychology)
- Mohammadi, Zahra**  
HEPATITIS B (epidemiology)
- Mohammadzadeh, Mahdi**  
DELIVERY OF HEALTH CARE
- Mohammed, Mohammed Ali**  
POISONING
- Mohammed, Mustafa Taha**  
ANNONA
- Mohebbi, Narges**  
CROCUS
- Mohsen, Amira**  
NURSES
- Montes, Fatima Cristina Onofre Fandinho**  
MYCOBACTERIUM
- Mooloughi, Shadi**  
ANASTOMOSIS, SURGICAL (methods)
- Morsy, Mohamed H.**  
HEPATITIS B (epidemiology)
- Mortazaviana, Amir M.**  
FOOD
- Mortazavib, Seyed Alireza**  
BURNS (therapy)
- Mosaddegh, Mahmoud**  
ALOE  
PRIMULA
- Mounier, M.M.**  
QUINAZOLINES
- Mourad, Amr Farouk**  
LUNG NEOPLASMS (diagnosis)
- Mourad, Farouk**  
HEPATECTOMY
- Mousa, Naglaa M.A.**  
HEPATITIS B
- Moussa, Sanaa A. I.**  
PLANT LEAVES
- Moussa, Sherif A.A.**  
GAMMA RAYS
- Msek, Hichem**  
TUBERCULOSIS
- Mubarak, Muhammed**  
GLOMERULONEPHRITIS

- Muhammad, Shujah**  
FINASTERIDE (therapeutic uses)
- Mumtaz, Madiha**  
NON-ALCOHOLIC FATTY LIVER DISEASE  
(epidemiology)
- Murtaza, Badar**  
STENTS
- Mustafa, Mulham**  
INFLUENZA VACCINES (therapeutic use)
- Mustafa, Sabir Osman**  
EAR (abnormalities)
- Nadeem, Muhammad**  
HEPATITIS B (epidemiology)
- Naeem, Abid**  
TUBERCULOSIS, PULMONARY
- Naeem, Buria**  
LIVER NEOPLASMS
- Nagamani, A.C.**  
EBSTEIN ANOMALY
- Naiem, Nabeel Isam**  
ABDOMINAL INJURIES
- Najam, Sehrish**  
LIVER NEOPLASMS
- Najeeb, Tallat**  
MENIERE DISEASE (drug therapy)
- Naqvi, Ghazala Raza**  
PHARMACOVIGILANCE
- Naqvi, Nargis Fatima**  
LIVER CIRRHOSIS
- Narnaware, Shirish D.**  
MYCOBACTERIUM AVIUM SUBSP.  
PARATUBERCULOSIS
- Naseri, Mitra**  
PYELONEPHRITIS (diagnosis)
- Nasoochi, Sanaz**  
ALOE
- Nasr, Sawsan A.**  
BRASSICA
- Nasri, Sima**  
PEGANUM
- Navabakhsh, Behrouz**  
PYODERMA GANGRENOSUM
- Naveed, Safila**  
PHARMACOVIGILANCE
- Navya, Manne**  
GALACTANS
- Nawaz, Gul**  
FINASTERIDE (therapeutic uses)
- Nayef, Hadeel Kh.**  
OBSTETRICLABOR, PREMATURE
- Nazarzadeh, Hedieh**  
GLYCOPROTEINS
- Nazarzadeh, Reza**  
GLYCOPROTEINS
- Nejat, Mehdi**  
PHYSICIANS, FAMILY (standards)
- Nekoeei, Sirous**  
MAGNETIC RESONANCE IMAGING
- Nezhadhosseini, Afsaneh**  
CURCUMIN (pharmacology)
- Nickavar, Azar**  
SALVIA
- Nickavar, Bahman**  
SALVIA
- Nile, Anees K.**  
HERNIA, INGUINAL
- Nikam, Chaitali**  
MYCOBACTERIUM TUBERCULOSIS
- Nikbakht, Mehdi**  
COLORECTAL NEOPLASMS
- Niknami, Zeinab**  
PEGANUM
- Nirouzad, Fereidon**  
CURCUMIN (pharmacology)
- Niu, Jing**  
MACROLIDES
- Niyat, Mozghan Moghadas**  
PROSTATIC NEOPLASMS
- Nnanna, Ibeh S.**  
TUBERCULOSIS, PULMONARY
- Noferesti, Fahime**  
PYELONEPHRITIS (diagnosis)
- Norazmi, Mohd Nor**  
MYCOBACTERIUM SMEGMATIS
- Nosrati, Anahita**  
COLORECTAL NEOPLASMS
- Nwafor, Charles C.**  
TUBERCULOSIS
- Obeidat, Nour A.**  
TOBACCO USE (prevention and control)
- Odesanya, Rachael U.**  
ANTITUBERCULAR AGENTS (adverse effects)
- Okasha, Hussein Hassan**  
PANCREATIC NEOPLASMS (diagnosis)  
ENDOSCOPIC ULTRASOUND-GUIDED FINE  
NEEDLE ASPIRATION

- Olah, Neli Kinga**  
GENISTA
- Om Parkash**  
LIVER NEOPLASMS
- Omar, Abdel Hady Mohammed**  
HEPATITIS C, CHRONIC
- Omar, Asmaa**  
KIDNEY FAILURE, CHRONIC
- Omar, Mohamed O.M.**  
BEES
- Oniga, Iliora**  
CHROMONES  
GENISTA
- Oniga, Ovidiu**  
CHROMONES
- Onyeonoro, Ugochukwu U.**  
TUBERCULOSIS
- Oqubudebe, Chidubem L.**  
TUBERCULOSIS
- Ortiz Torres, Tania**  
HAMELIA
- Oshi, Daniel C.**  
TUBERCULOSIS
- Osman, Mohammed H.**  
ARTHROCENTESIS
- Osman, Osama B.S.**  
MYOCARDIAL INFARCTION
- Osman, Osman Abdel Hameed**  
BILIARY TRACT DISEASES
- Osmani, Riyaz Ali M.**  
CANDIDIASIS, VULVOVAGINAL (therapy)
- Oun, Manar Abed Al Kreim Abed**  
BREAST NEOPLASMS
- Pan, Hongchun**  
PHOSPHOCREATINE
- Panahi, Amin**  
SCHIZOPHRENIA
- Pandey, Kirti**  
TUBERCULOSIS VACCINES
- Pansota, Mubasher Saeed**  
UTERINE RUPTURE
- Patra, Soumya**  
EBSTEIN ANOMALY
- Peng, Yueli**  
CRANIOCEREBRAL TRAUMA (therapy)
- Perez Meseguer, Jonathan**  
HAMELIA
- Phillips, Isabel**  
INFANT HEALTH
- Pirwani, Mehtab**  
HIP FRACTURES
- Popica, Iulia**  
GENISTA
- Pourakbar, Ali**  
LEAD POISONING
- Pourfatholah, Ali Akbar**  
HEPATITIS B (epidemiology)
- Pourreza, Abolghasem**  
PUBLIC HEALTH SYSTEMS RESEARCH
- Pourshams, Akram**  
NAILS
- Poustchi, Hossein**  
HEPATITIS B (epidemiology)  
NAILS
- Qamar un Nisa**  
NEURALGIA, POSTHERPETIC
- Qamar, Khadija**  
STUDENTS, MEDICAL  
LEARNING
- Qassim, Sanaa F.**  
CHOLECYSTECTOMY
- Qazi, Afsheen**  
DIABETES, GESTATIONAL (diagnosis)
- Qazi, Saqib Hamid**  
ANUS, IMPERFORATE
- Qian, Shenyan**  
MACROLIDES
- Qureshi, Aneela**  
DIABETES, GESTATIONAL (diagnosis)
- Qureshi, Fawed**  
LIVER CIRRHOSIS
- Qureshi, Umar Farooq**  
HEPATITIS B (epidemiology)
- Rafiq, Muhammad Salman**  
CHOLECYSTECTOMY
- Ragab, Seham M.**  
PRECURSOR CELL LYMPHOBLASTIC  
LEUKEMIA-LYMPHOMA
- Rahpeyma, Amin**  
DERMOID CYST
- Ramesh, B.**  
EBSTEIN ANOMALY
- Ramos, Jesus Pais**  
MYCOBACTERIUM

- Rasekh, Hamid Reza**  
INSURANCE, HEALTH
- Rasheed, Abdur**  
FASTING (physiology)
- Rashid, Abid**  
ARTEMISIA ABSINTHIUM
- Rashid, Asif Zaman**  
DIABETIC FOOT (diagnosis)
- Rashidy Pour, Ali**  
CROCUS
- Rastogi, Nalin**  
TUBERCULOSIS, PULMONARY
- Rastogi, Shivangi**  
MYCOBACTERIUM TUBERCULOSIS
- Ravanshad, Yalda**  
PYELONEPHRITIS (diagnosis)
- Redner, Paulo**  
MYCOBACTERIUM
- Rehman, Mujeeb**  
VENOUS THROMBOSIS
- Rehman, Sabah**  
STUDENTS, MEDICAL  
LEARNING
- Rehman, Urooj Lal**  
SEX DIFFERENTIATION
- Reshadat, Sohyla**  
PERSONALITY DISORDERS (psychology)
- Rezaee, Javad**  
SALVIA
- Rezaei Tavirani, Mostafa**  
CROCUS
- Rezaei, Maryam**  
PEGANUM
- Riaz, Rehan**  
MITRAL VALVE STENOSIS
- Ribeiro, Marta Osorio**  
MYCOBACTERIUM
- Rihawi, Ayman**  
TUBERCULOSIS
- Rind, Muhammad Salim**  
HEPATITIS C, CHRONIC
- Rodrigues, Camilla**  
MYCOBACTERIUM TUBERCULOSIS
- Rodwell, Timothy C.**  
MYCOBACTERIUM TUBERCULOSIS
- Roodgar, Mina Vosoghi**  
ILEX
- Roos, Susann**  
SURGICAL FLAPS
- Roughani, Mehrdad**  
PEGANUM
- Rowe, Neil**  
EYE ABNORMALITIES
- Ryiad, Mais**  
NEUROBLASTOMA (epidemiology)
- S. El Din, Hoda**  
HEPACIVIRUS
- Saady, Mohammed Gamal**  
KIDNEY TRANSPLANTATION
- Saarav, Iti**  
TUBERCULOSIS VACCINES
- Sabir, Sana**  
INTERLEUKIN-10 (blood)
- Sabry, Abeer**  
CARCINOMA, HEPATOCELLULAR
- Sabry, Dina**  
LIVER CIRRHOSIS  
CARCINOMA, HEPATOCELLULAR
- Saburi, Amin**  
NON-ALCOHOLIC FATTY LIVER DISEASE
- Sadani, Meeta**  
MYCOBACTERIUM TUBERCULOSIS
- Sadeghi, Anahita**  
PYODERMA GANGRENOSUM
- Sadeghi, Ramezan**  
POLYCYCLIC HYDROCARBONS, AROMATIC
- Safa, Tahere**  
N-METHYL-3,4-  
METHYLENEDIOXYAMPHETAMINE
- Safakhah, Hossein Ali**  
CROCUS
- Safan, Manal A.**  
PRECURSOR CELL LYMPHOBLASTIC  
LEUKEMIA-LYMPHOMA
- Saferpour, Tahere**  
N-METHYL-3,4-  
METHYLENEDIOXYAMPHETAMINE
- Safikhani, HamidReza**  
INSURANCE, HEALTH
- Sahebnasagh, Adeleh**  
SCHIZOPHRENIA
- Sajjad, Saadia**  
INTERLEUKIN-10 (blood)
- Salazar Aranda, Ricardo**  
HAMELIA

- Saldera, Kausar**  
LIVER CIRRHOSIS
- Saleem, Umama**  
ANUS, IMPERFORATE
- Salman, Raed Yeiha**  
POISONING
- Salman, Safwat A.M.**  
POLYCYSTIC OVARY SYNDROME
- Samy, Haisam Ahmed**  
LUNG NEOPLASMS (diagnosis)
- Sani, Roya Narenji**  
RENAL INSUFFICIENCY, CHRONIC
- Sarfraz, Aqiba**  
DIABETES MELLITUS
- Sarmiento, Maria E.**  
MYCOBACTERIUM SMEGMATIS
- Sarriff, Azmi**  
DENGUE
- Sarwar, Imran**  
RESPIRATORY TRACT INFECTIONS
- Sayad, Asrar Saleh**  
CESAREAN SECTION, REPEAT
- Sayed, Sally A.**  
DIABETES MELLITUS, TYPE 2
- Sayed, Sohair K.**  
ACNE VULGARIS (therapy)
- Sayed, Zainelabdeen Ahmed**  
PANCREATIC NEOPLASMS (diagnosis)
- Sayyed, Hayam G.**  
LIVER CIRRHOSIS
- Sbai, Mohamed Ali**  
TUBERCULOSIS
- Schrom, Thomas**  
SURGICAL FLAPS
- Seerwan, Muhammad**  
SULFONAMIDES (pharmacology)
- Sekuera, Reginald**  
STUDENTS, MEDICAL (classification)
- Senjoti, Faria Gias**  
METFORMIN
- Shafik, Engy A.**  
MYOCARDIAL INFARCTION
- Shah, Muhammad Iqbal**  
HEPATITIS C, CHRONIC
- Shah, Shabana N.**  
PHARMACOVIGILANCE
- Shah, Shamsul Azhar**  
TUBERCULOSIS, MULTIDRUG-RESISTANT  
MEDICINE, TRADITIONAL (utilization)
- Shah, Syed Humayun**  
URINARY TRACT INFECTIONS (etiology)
- Shah, Syed Muhammad Ali**  
ARTEMISIA ABSINTHIUM
- Shahid, Abdul Razzaq**  
URINARY TRACT INFECTIONS (etiology)
- Shahid, Muhammad**  
DIABETES MELLITUS  
MYCOBACTERIUM TUBERCULOSIS
- Shahid, Nadia**  
DIABETES MELLITUS
- Shahine, Mohammed S.**  
ARTHROCENTESIS
- Shaikh, Aijaz Ahmed**  
VENOUS THROMBOSIS
- Shaikh, Hafeezullah**  
LIVER CIRRHOSIS
- Shaikh, Shazia Sarwar**  
LIVER CIRRHOSIS
- Shaikh, Shiraz**  
DIABETES MELLITUS
- Shalaby, Heidi A.**  
ORYZA
- Shaltout, Salah El dien**  
ARTHROCENTESIS
- Shamsuddin, Khadijah**  
MEDICINE, TRADITIONAL (utilization)
- Shao, Meiyun**  
MACROLIDES
- Sharif, Atif**  
MENIERE DISEASE (drug therapy)
- Shariff, Noorsuzana Mohd**  
TUBERCULOSIS, MULTIDRUG-RESISTANT
- Sharifi, Kasra**  
PERSONALITY DISORDERS (psychology)
- Sharifianrazavi, Masoud**  
LEAD POISONING
- Sharma, Monika**  
TUBERCULOSIS VACCINES
- Sharma, Sadhna**  
TUBERCULOSIS VACCINES
- Shaukat, Asim**  
CAROTID ARTERY DISEASES
- Shayanrad, Amaneh**  
HEPATITIS B (epidemiology)

- Shea, Terrance**  
LATENT TUBERCULOSIS
- Shehu, Nathan Y.**  
ANTITUBERCULARAGENTS (adverse effects)
- Sheng, Jie**  
MONOAMINE OXIDASE INHIBITORS
- Sheraz, Motsim**  
OPERATING ROOMS
- Sherbaf, Fatemeh Ghane**  
PYELONEPHRITIS (diagnosis)
- Shetty, Anjali**  
MYCOBACTERIUM TUBERCULOSIS
- Shi, Yin**  
MONOAMINE OXIDASE INHIBITORS
- Shihab, Rawan A.**  
TOBACCO USE (prevention and control)
- Shirani, Shapour**  
ESOPHAGEAL ACHALASIA
- Shirazi, Farshad H.**  
CISPLATIN
- Shivakumar, H.G.**  
CANDIDIASIS, VULVOVAGINAL (therapy)
- Shivakumar, Hosakote Gurumalappa**  
GALACTANS
- Shoab, Khawaja Khalid**  
EYE ABNORMALITIES
- Shokri, Saeed**  
COLORECTAL NEOPLASMS
- Shtaiwi, Aisha S.**  
TOBACCO USE (prevention and control)
- Shu, Zongmei**  
MONOAMINE OXIDASE INHIBITORS
- Siddiq, Ghulam**  
GASTRECTOMY
- Siddique, Kashif**  
C-REACTIVE PROTEIN
- Siddiqui, Mehboob Alam**  
RESPIRATORY TRACT INFECTIONS
- Siddiqui, Shehla**  
PHARMACOVIGILANCE
- Siddiquid, Masoom Raza**  
CLOBETASOL (therapeutic uses)
- Simji, Gomerep**  
ANTITUBERCULAR AGENTS (adverse effects)
- Singh, Swati**  
TUBERCULOSIS VACCINES
- Sistanizad, Mohammad**  
VANCOMYCIN (blood)
- Sladek, Krzysztof**  
LATENT TUBERCULOSIS (diagnosis)
- Sobh, Muhammad Abbas**  
KIDNEY TRANSPLANTATION
- Sokhanvar, Mina**  
CROCUS
- Soliman, Mona**  
KIDNEY FAILURE, CHRONIC
- Soltan, Sameh**  
CURCUMIN (pharmacology)
- Sonawane, Ganesh G.**  
MYCOBACTERIUM AVIUM SUBSP.  
PARATUBERCULOSIS
- Srivastava, Atul**  
CANDIDIASIS, VULVOVAGINAL (therapy)
- Su, Mingyang**  
CYSTECTOMY (methods)
- Sulaiman, Tharwat Idrees**  
ABDOMINAL INJURIES
- Suthar, Ramesh Kumar**  
HEPATITIS C, CHRONIC
- Szymanski, Arkadiusz**  
DIOSMIN
- Szymanski, Marcin**  
DIOSMIN
- Tabarsi, Payam**  
SILYMARIN (pharmacology)
- Tabatabaei, Sedigheh Rafiei**  
VANCOMYCIN (blood)
- Tabatabaie, Humidreza R.**  
PHYSICIANS, FAMILY (standards)
- Tafazoli, Ali**  
CYCLOSPORINE (therapeutic uses)
- Taghavi, Tahereh**  
CROCUS
- Taha, Ahmad**  
CURCUMIN (pharmacology)
- Taha, Emad A.**  
ACNE VULGARIS (therapy)
- Tahir, Muhammad Muzammil**  
SULFONAMIDES (pharmacology)
- Tahvildari, Shadi**  
COLORECTAL NEOPLASMS
- Tamaian, Radu**  
CHROMONES

- Tang, Xiaolong**  
ACONITUM
- Tariq, Nadeem**  
TEMPOROMANDIBULAR JOINT DYSFUNCTION SYNDROME
- Tauseef, Ambreen**  
INTERLEUKIN-10 (blood)
- Tawfik, Nabawia M.**  
PANCREATIC NEOPLASMS (diagnosis)
- Tayel, Safaa I.**  
PRECURSOR CELL LYMPHOBLASTIC LEUKEMIA-LYMPHOMA
- Tim, Yasin**  
STUDENTS, MEDICAL (classification)
- Tiperciuc, Brindusa**  
CHROMONES
- Toosi, Farokh Seilianian**  
MAGNETIC RESONANCE IMAGING
- Torabizadeh, Zhila**  
COLORECTAL NEOPLASMS
- Tortoli, Enrico**  
MYCOBACTERIUM
- Trimech, Faouzia**  
VACCINATION (standards)
- Tripathi, Bhupendra N.**  
MYCOBACTERIUM AVIUM SUBSP. PARATUBERCULOSIS
- Udwadia, Zarir**  
MYCOBACTERIUM TUBERCULOSIS
- Ukwaja, Kingsley N.**  
TUBERCULOSIS
- Umar, Naima**  
INTERLEUKIN-10 (blood)
- Unis, Gisela**  
MYCOBACTERIUM
- Upadhayay, Preeti**  
NORFLOXACIN (therapeutic uses)
- Uzoewulu, Gertrude N.**  
TUBERCULOSIS, PULMONARY
- Vafaei, Abbas Ali**  
CROCUS
- Vahedi, Niloofar Izadi**  
PYODERMA GANGRENOSUM
- Varma, Naga Sravan Kumar**  
CANDIDIASIS, VULVOVAGINAL (therapy)
- Varma, Vegesna Naga Sravan Kumar**  
GALACTANS
- Velayati, Ali Akbar**  
SILYMARIN (pharmacology)  
LATENT TUBERCULOSIS
- Viyanchi, Amir**  
INSURANCE, HEALTH
- Vlase, Laurian**  
GENISTA
- Vodnar, Dan Cristian**  
CHROMONES
- Vossoughinia, Hassan**  
LEAD POISONING
- Wahid, Zarnaz**  
ECZEMA (diagnosis)
- Waksman de Torres, Noemi**  
HAMELIA
- Wang, Guangzhou**  
LACTOSE (pharmacokinetics)  
ROTAVIRUS  
JAUNDICE, NEONATAL (diagnosis)
- Wang, Jiefei**  
JAUNDICE, NEONATAL (diagnosis)
- Wang, Miao**  
MACROLIDES
- Wei, Lihua**  
PHOSPHOCREATINE
- Weikert, Sebastian**  
SURGICAL FLAPS
- Wu, Xinling**  
HEMOGLOBIN A, GLYCOSYLATED
- Xiang, Mingli**  
CATHETERIZATION, PERIPHERAL
- Xie, Zengkun**  
PHOSPHOCREATINE
- Xu, Lanjuan**  
CRANIOCEREBRAL TRAUMA (therapy)
- Xu, Shuling**  
ROTAVIRUS  
CROSS INFECTION (prevention and control)
- Yang, Caifu**  
CRANIOCEREBRAL TRAUMA (therapy)
- Yang, Jun**  
ACONITUM
- Yang, Min**  
PHOSPHOCREATINE
- Yang, Qin**  
PHOSPHOCREATINE
- Yang, Zhongduo**  
MONOAMINE OXIDASE INHIBITORS

**Yanga, Andong**  
ACONITUM

**Yao, Aimei**  
LACTOSE (pharmacokinetics)  
CROSS INFECTION (prevention and control)

**Yassin, Fatma El Zahraa Salah El Deen**  
MALATHION

**Yazdanpanah, Hassan**  
POLYCYCLIC HYDROCARBONS, AROMATIC

**Yi, Lan**  
CATHETERIZATION, PERIPHERAL

**Yib, Jinhai**  
ACONITUM

**Youssif, Fatma**  
POLYCYSTIC OVARY SYNDROME

**Yu, Fengqin**  
LACTOSE (pharmacokinetics)  
ROTAVIRUS  
JAUNDICE, NEONATAL (diagnosis)  
CROSS INFECTION (prevention and control)

**Yuan, Yuxiao**  
LACTOSE (pharmacokinetics)  
CROSS INFECTION (prevention and control)

**Yue, Changwu**  
MACROLIDES

**Zadsar, Maryam**  
HEPATITIS B (epidemiology)

**Zafar, Farya**  
PHARMACOVIGILANCE

**Zaki, Eman Mosaad**  
BILIARY TRACT DISEASES

**Zakiei, Ali**  
PERSONALITY DISORDERS (psychology)

**Zakir, Foziyah**  
CLOBETASOL (therapeutic uses)

**Zaman, Bushra Sher**  
UTERINE RUPTURE

**Zarghi, Afshin**  
QUINOLINES

**Zarrini, Mehrnaz**  
MAGNETIC RESONANCE IMAGING

**Zehra, Fatima**  
SEX DIFFERENTIATION

**Zhang, Changjun**  
ROTAVIRUS

**Zhang, Daoxiu**  
CYSTECTOMY (methods)

**Zhang, Jun**  
OSTEOMYELITIS (diagnosis)

**Zhang, Wei**  
CROSS INFECTION (prevention and control)

**Zhao, Huiping**  
CYSTECTOMY (methods)

**Zhao, Xiang**  
LACTOSE (pharmacokinetics)

**Zhao, Youmin**  
HEMOGLOBIN A, GLYCOSYLATED

**Zhavnerko, Gennady Konstantinovich**  
LATENT TUBERCULOSIS

**Zhi, Kangkang**  
MONOAMINE OXIDASE INHIBITORS

**Zhou, Qinglan**  
OSTEOMYELITIS (diagnosis)

**Zhu, Jinshui**  
PYRAZINES

**Ziai, Seyed Ali**  
PEGANUM

**Zulfiqar, Sibgha**  
INTERLEUKIN-10 (blood)





**Appendix II**

**List of EMR Journals Indexed in  
IMEMR**

**(by country)**



Journal	ISSN
<b>Afghanistan (2)</b>	
Afghan Medical Journal	N/A
AFJPH-Afghanistan Journal of Public Health	2308-2895
<b>Bahrain (3)</b>	
Arab Journal for Food and Nutrition	1608-8352
Bahrain Medical Bulletin	1012-8298
JBMS-Journal of the Bahrain Medical Society	1015-6321
<b>Egypt (141)</b>	
AAMJ-Al-Azhar Assiut Medical Journal	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
Al-Azhar Journal of Dental Science	1110-6751
Al-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]	2357-0601
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
Weekly Epidemiology Monitor	2224-4220
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
<b>Iraq (32)</b>	
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 Contemporary Medical Sciences	2415-1629
Journal of Dohuk University	1812-7568
Journal of Karbala University	1813-0410
Journal of the Faculty of Medicine-Baghdad	0041-9419



Journal	ISSN
Kufa Medical Journal	N/A
Medical Journal of Basrah University [The]	0253-0759
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
<b>Islamic Republic of Iran (262)</b>	
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 [ASJ]	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 Medical Laboratory Sciences <span style="border: 1px solid black; border-radius: 5px; padding: 2px;">New</span>	2423-6241
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
Caspian Journal of Neurological Sciences	2383-4307
Cell Journal [Yakhteh]	2228-5806
Community Health	2386-3033
DARU-Journal of Pharmaceutical Sciences	1560-8115

Journal	ISSN
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
Emergency	2345-4563
Endovascular Journal	2008-1812
Environmental Health Engineering and Management Journal	2423-3765
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 in Emergencies and Disasters Quarterly [HDQ]	N/A
Health Information Management	1735-7853
Hepatitis Monthly	1735-143X
Holistic Nursing and Midwifery Journal <span style="border: 1px solid black; border-radius: 5px; padding: 2px;">New</span>	2251-8460
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

Journal	ISSN
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
IJML-International Journal of Medical Laboratory <span style="border: 1px solid black; border-radius: 5px; padding: 2px;">New</span>	2423-3706
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
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 Emergency Medicine	N/A
Iranian Journal of Environmental Health Science and Engineering	1735-1979
Iranian Journal of Epidemiology	1735-7489

Journal	ISSN
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
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 [ANDEESHEH VA RAFTAR]	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
IRJNS - Iranian Journal of Neurosurgery	New 2423-6497
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
JEHSD-Journal of Environmental Health and Sustainable Development	New 2426-6267
JFH-Journal of Fasting and Health	N/A
JMB-Journal of Medical Bacteriology	2251-8649
JMRH-Journal of Midwifery and Reproductive Health	N/A
JMR-Journal of Medical Research	1728-1962
JNE-Journal of Nursing Education	3812-2322
JNMS-Journal of Nursing and Midwifery Sciences	2345-5756
JNP-Journal of Nephropathology	2251-8363
Journal of Advances in Medical Education and Professionalism	2322-2220

Journal	ISSN
Journal of Anesthesiology and Pain	2228-6659
Journal of Arak University of Medical Sciences-Rahavard Danesh	1735-5338
Journal of Birjand University of Medical Sciences	N/A
Journal of Cardio-Thoracic Medicine	2345-2447
Journal of Client-Centered Nursing Care	N/A
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 of Health Administration	2008-1200
Journal of Health and Safety at Work	2251-807X
Journal of Health Management and Informatics [JHMI]	2322-1097
Journal of Health Promotion Management [JHPM]	2251-8614
Journal of Health Sciences and Surveillance System	2345-2218
Journal of Health Scope	2251-8959
Journal of Health-Based Research <span style="border: 1px solid black; border-radius: 5px; padding: 2px;">New</span>	2423-7639
Journal of Hearing Sciences and Otolaryngology	N/A
Journal of Hygiene and Health	1735-2363
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	ISSN
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 Medical Information Science	N/A
Journal of Modern Rehabilitation	2008-2576
Journal of Neyshabur University of Medical Sciences	2383-3203
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 Paramedical Sciences <span style="border: 1px solid black; border-radius: 5px; padding: 2px;">New</span>	2008-496X
Journal of Paramedical Sciences and Rehabilitation	2322-5238
Journal of Patient Safety and Quality Improvement	2345-4482
Journal of Periodontology and Implant Dentistry	2008-7748
Journal of Practice in Clinical Psychology	2423-5822
Journal of Preventive Medicine	N/A
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 Rehabilitation Sciences and Research [JRSR]	2345-6167
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 Research on History of Medicine [The]	N/A
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 of Shaheed Sadoughi University of Medical Sciences and Health Services	1562-272X
Journal of Shahrekord University of Medical Sciences	1735-1448
Journal of Student Research Committee [BEYHAGH]	2008-0328
Journal of Tehran University Heart Center [The]	1735-8620
Journal of Veterinary Research	2008-2525
Journal of Zahedan University of Medical Sciences and Health Services	1735-076X

Journal	ISSN
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
Ofogh-E-Danesh	1735-1855
Payavard-Salamat	1735-8132
Payesh-Health Monitor	1680-7626
Pejouhandeh: Bimonthly Research Journal	1735-1022
Physical Treatments: Specific Physical Therapy Journal	2423-5830
Qom University of Medical Sciences Journal	1735-7799
Quarterly Journal of Medical Ethics	2008-4374
Quarterly Journal of Medical Law	N/A
Quarterly Scientific Journal of Relief and Rescue	2008-4544
Razi Journal of Medical Sciences	2228-7043

Journal	ISSN
Reports of Radiotherapy and Oncology	2345-3192
Research in Cardiovascular Medicine	2251-9572
Reviews in Clinical Medicine [RCM]	2345-6256
RMM-Research in Molecular Medicine	2322-1348
Sadra Medical Sciences Journal	N/A
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
Shenakht Journal of Psychology and Psychiatry	N/A
Social Determinants of Health	2423-3560
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
TIPS-Trends in Pharmaceutical Sciences	2423-3722
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
<b>Jordan (9)</b>	
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



Journal	ISSN
<b>Kuwait (6)</b>	
Bulletin of Nutrition and Food	N/A
Bulletin of the Kuwait Institute for Medical Specialization	N/A
GJO-Gulf Journal of Oncology [The]	2078-2101
KMJ-Kuwait Medical Journal	0023-5776
Medical Arabization	N/A
Medical Principles and Practice	1011-7571
<b>Lebanon (11)</b>	
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
MJEM- Mediterranean Journal of Emergency Medicine	2222-9442
<b>Libya (6)</b>	
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
<b>Morocco (7)</b>	
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

Journal	ISSN
<b>Oman (3)</b>	
Oman Journal of Ophthalmology	0974-620X
Oman Medical Journal	1999-768X
SQUMJ-Sultan Qaboos University Medical Journal	2075-051X
<b>Pakistan (92)</b>	
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
Baqai Journal of Health Sciences	2313-4423
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
International Journal of Women Empowerment	2413-4252
Isra Medical Journal	2073-8285
JAMC-Journal of Ayub Medical College-Abbottabad-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
JIIIC-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	ISSN
Journal of Basic and Applied Sciences	1814-8085
Journal of Medical Sciences	1682-4474
Journal of Medical Sciences	1997-3438
Journal of Medical Students	N/A
Journal of Nephrology Urology and Transplantation	1606-9331
Journal of Sheikh Zayed Medical College [JSZMC]	2078-8274
Journal of Surgery [The]	1681-4517
Journal of the Pakistan Prosthodontics Association [JPPA]	2308-8613
JPAD-Journal of Pakistan Association of Dermatologists	1560-9014
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
NUST Journal of Natural Sciences-NJNS	2072-4659
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 Medicine and Dentistry	2308-2593

Journal	ISSN
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
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
PJPH-Pakistan Journal of Public Health	2225-0891
PJR-Pakistan Journal of Radiology	1607-2006
PJS-Pakistan Journal of Surgery	0258-8552
POJ-Pakistan Orthodontic Journal	2074-0069
Proceedings-Shaikh Zayed Postgraduate Medical Institute	N/A
Professional Medical Journal-Quarterly [The]	1024-8919
RMJ-Rawal Medical Journal	0303-5212
<b>Palestine (3)</b>	
Al-Quds Medical Journal	N/A
Annals of Alquds Medicine	1815-2635
PMJ-Palestinian Medical Journal	N/A
<b>Qatar (4)</b>	
Gulf Journal of Dermatology and Venereology [The]	N/A
Heart Views	1995-705X
JEMTAC-Journal of Emergency Medicine, Trauma and Acute Care	1999-7086

Journal	ISSN
Qatar Medical Journal	0253-8253
<b>Saudi Arabia (31)</b>	
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 Health Specialties [JHS]	1658-600X
Journal of Infection and Public Health	1876-0341
Journal of King Abdulaziz University-Medical Sciences	1319-1004
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 Medicine and Medical Sciences [SJMMs]	1658-631X
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
<b>Sudan (11)</b>	
AJNT-Arab Journal of Nephrology and Transplantation	1858-554X

Journal	ISSN
BIJO-Albasar International Journal of Ophthalmology <span style="border: 1px solid black; border-radius: 5px; padding: 2px;">New</span>	1858-6538
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
<b>Syrian Arab Republic (10)</b>	
Arab Journal of Pharmaceutical Sciences	1683-0369
Arabic Journal of Forensic Medicine and Criminal Science	N/A
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
<b>Tunisia (9)</b>	
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
<b>United Arab Emirates (5)</b>	
EMJ-Emirates Medical Journal	0250-6882
Gulf Medical University: Proceedings	2306-6865
HMJ-Hamdan Medical Journal	2227-2437

Journal	ISSN
International Journal of Diabetes and Metabolism	1606-7754
IRCMJ-Iranian Red Crescent Medical Journal	1561-4395
<b>Yemen (8)</b>	
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

**Last update December 2017**

**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

S/N	Journal	ISSN
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 Medical Laboratory Sciences <span style="border: 1px solid black; border-radius: 5px; padding: 2px;">New</span>	2423-6241
60	Archives of Trauma Research	2251-953X
61	Armaghane-danesh	1728-6506
62	ARYA Atherosclerosis Journal	1735-3955
63	Asia Oceania Journal of Nuclear Medicine and Biology	2322-5718
64	Asian Journal of Sports Medicine	2008-000X
65	ASJOG-Ain-Shams Journal of Obstetrics and Gynecology	1697-2193
66	ASNJ-Alexandria Scientific Nursing Journal	1687-3858
67	Assiut Medical Journal	1110-0494
68	Assiut University Bulletin for Environmental Researches	1110-6107
69	Assiut Veterinary Medical Journal	N/A
70	Audiology	1735-1936

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71	Avicenna Journal of Phytomedicine [AJP]	2228-7930
72	Bahrain Medical Bulletin	1012-8298
73	Bahria Journal of Professional Psychology	1816-0840
74	Baqai Journal of Health Sciences	2313-4423
75	Basic and Clinical Neuroscience	2008-126X
76	Basrah Journal of Surgery	1683-3589
77	BCCR-Basic and Clinical Cancer Research	2228-6527
78	BEAT-Bulletin of Emergency and Trauma	2322-2522
79	Benha Medical Journal	1110-208X
80	BIJO-Albasar International Journal of Ophthalmology <span style="border: 1px solid black; border-radius: 5px; padding: 2px;">New</span>	1858-6538
81	Bina Journal of Ophthalmology	1026-6399
82	Biomedica	1992-4852
83	Bulletin Epidemiologique	0851-8238
84	Bulletin of Alexandria Thoracic Association	1687-997X
85	Bulletin of Endemic Disease-Baghdad	0007-4845
86	Bulletin of Faculty of Pharmacy-Cairo University	1110-0931
87	Bulletin of Faculty of Physical Therapy-Cairo University	1110-6611
88	Bulletin of Nutrition and Food	N/A
89	Bulletin of Pharmaceutical Sciences-Assiut University	1110-0052
90	Bulletin of the Faculty of Science-University of Alexandria	0568-9619
91	Bulletin of the Kuwait Institute for Medical Specialization	N/A
92	Bulletin of the National Nutrition Institute of the Arab Republic of Egypt	N/A
93	Bulletin of the National Research Centre	1110-0591
94	Bulletin of the Ophthalmological Society of Egypt	0078-5342
95	Cahiers Medicaux de Tunisie	0300-5291
96	Caspian Journal of Neurological Sciences	2383-4307
97	Cell Journal [Yakhteh]	2228-5806
98	Challenge-Quarterly [The]	0528-7944
99	Childhood and Development Quarterly	1110-8681
100	Clinical Diabetes	0891-8929
101	Community Health	2386-3033
102	Community Medicine	0301-7265
103	Damascus University Journal for Health Sciences	2072-2265
104	DARU-Journal of Pharmaceutical Sciences	1560-8115
105	DENA-Quarterly Journal of Yasuj Faculty of Nursing and Midwifery	1735-8450

S/N	Journal	ISSN
106	Dermatology and Cosmetic Quarterly	2008-7470
107	Diabetes Digest	1369-7501
108	Dirasat	1026-3764
109	DMJ-Derna Medical Journal	N/A
110	DMJ-Dohuk Medical Journal	2071-7326
111	DRJ-Dental Research Journal	1735-3327
112	EBNESINA-Medical Journal of Military Medicine [The]	1735-9503
113	EDJ-Egyptian Dental Journal	0070-9484
114	Egyptian Heart Journal [The]	1110-2608
115	Egyptian Journal of Anatomy [The]	1110-2144
116	Egyptian Journal of Biomedical Engineering	1012-5558
117	Egyptian Journal of Biophysics and Biomedical Engineering	1110-8525
118	Egyptian Journal of Breastfeeding	N/A
119	Egyptian Journal of Bronchology [The]	1687-8426
120	Egyptian Journal of Cardiothoracic Anesthesia	1687-9090
121	Egyptian Journal of Cataract and Refractive Surgery [The]	N/A
122	Egyptian Journal of Chemistry	0449-2285
123	Egyptian Journal of Chest Diseases and Tuberculosis [The]	0422-7638
124	Egyptian Journal of Community Medicine [The]	1110-1865
125	Egyptian Journal of Dermatology and Andrology	1110-7650
126	Egyptian Journal of Diabetes [The]	N/A
127	Egyptian Journal of Food Science	1110-0192
128	Egyptian Journal of Genetics and Cytology	0046-161X
129	Egyptian Journal of Histology [The]	1110-0559
130	Egyptian Journal of Hospital Medicine [The]	1687-2002
131	Egyptian Journal of Immunology [The]	1110-4902
132	Egyptian Journal of Medical Human Genetics [The]	1110-8630
133	Egyptian Journal of Medical Laboratory Sciences	1110-5593
134	Egyptian Journal of Microbiology	0022-2704
135	Egyptian Journal of Neonatology [The]	1110-8991
136	Egyptian Journal of Neurology, Psychiatry and Neurosurgery [The]	1110-1083
137	Egyptian Journal of Nutrition	1687-1235
138	Egyptian Journal of Nutrition and Health	1687-7950
139	Egyptian Journal of Occupational Medicine	1110-1881
140	Egyptian Journal of Otolaryngology [The]	1012-5574

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141	Egyptian Journal of Paediatrics [The]	1687-1677
142	Egyptian Journal of Pediatric Allergy and Immunology [The]	1687-1642
143	Egyptian Journal of Pharmaceutical Sciences	0301-5068
144	Egyptian Journal of Physiological Sciences	0301-8660
145	Egyptian Journal of Psychiatry [The]	1110-1105
146	Egyptian Journal of Schistosomiasis and Infectious and Endemic Diseases	1110-7278
147	Egyptian Journal of Surgery [The]	1110-1121
148	Egyptian Journal of Urology	1110-5712
149	Egyptian Journal of Veterinary Science	1110-0222
150	Egyptian Liver Journal	2090-6218
151	Egyptian Medical Journal of the National Research Center	1687-1278
152	Egyptian Orthodontic Journal	1110-435x
153	Egyptian Orthopaedic Journal [The]	1110-1148
154	Egyptian Pharmaceutical Journal [National Research Center]	1687-4315
155	Egyptian Population and Family Planning Review [The]	1110-1156
156	Egyptian Rheumatologist [The]	1110-1164
157	Egyptian Rheumatology and Rehabilitation	1110-161X
158	Egyptian Science Magazine [The]	1687-3815
159	EJB-Egyptian Journal of Biochemistry and Molecular Biology [The]	1687-1502
160	EJENTAS-Egyptian Journal of ENT and Allied Sciences	2090-0740
161	EJMM-Egyptian Journal of Medical Microbiology [The]	1110-2179
162	Emergency	2345-4563
163	EMHJ-Eastern Mediterranean Health Journal	1020-3397
164	EMJ-Emirates Medical Journal	0250-6882
165	Endovascular Journal	2008-1812
166	Environmental Health Engineering and Management Journal	2423-3765
167	Esculapio	2309-3080
168	Feyz-Journal of Kashan University of Medical Sciences	1029-7855
169	Frontiers in Biomedical Technologies	2345-5829
170	FWU Journal of Social Sciences	1995-1272
171	Garyounis Medical Journal	0254-7198
172	Gastroenterology and Hepatology from Bed to Bench	2010-2258
173	Gazette of the Egyptian Paediatric Association [The]	1110-6638
174	Genetics in the 3rd Millennium	2423-7159
175	Gezira Journal of Health Sciences	1810-5386

S/N	Journal	ISSN
176	GJMS-Gomal Journal of Medical Sciences	1819-7973
177	GJO-Gulf Journal of Oncology [The]	2078-2101
178	Govaresh	1560-7186
179	Gulf Journal of Dermatology and Venereology [The]	N/A
180	Gulf Medical University: Proceedings	2306-6865
181	HAKIM Research Journal	1561-252X
182	Hamdard Medicus	0250-7188
183	HAYAT-Journal of Faculty of Nursing and Midwifery [The]	1735-2215
184	Health [The]	2218-3299
185	Health in Emergencies and Disasters Quarterly [HDQ]	N/A
186	Health Information Management	1735-7853
187	Health Services Journal of the Eastern Mediterranean Region	1014-9899
188	Heart Views	1995-705X
189	Hematology, Oncology and Stem Cell Therapy	1658-3876
190	Hepatitis Monthly	1735-143X
191	HJMS-Hadramout Journal of Medical Sciences	2224-1806
192	HMJ-Hamdan Medical Journal	2227-2437
193	Holistic Nursing and Midwifery Journal	<span>New</span> 2251-8460
194	Homa-ye-Salamat	2008-2002
195	Hormozgan Medical Journal	1735-2223
196	Hospital-Journal of Iranian Scientific Hospital Association	2008-1928
197	IAJD-International Arab Journal of Dentistry	2218-0885
198	IBJ-Iranian Biomedical Journal	1028-852X
199	IDEES-Revue de Perfectionnement Medical et Paramedical	N/A
200	IEJ-Iranian Endodontic Journal	1735-7497
201	IHJ-Iranian Heart Journal	1735-7306
202	IJBC-Iranian Journal of Blood and Cancer	2008-4595
203	IJB-Iranian Journal of Biotechnology	1728-3043
204	IJCBNM-International Journal of Community Based Nursing and Midwifery	2322-2476
205	IJCN-Iranian Journal of Child Neurology	1735-4668
206	IJDO-Iranian Journal of Diabetes and Obesity	2008-6792
207	IJEHSR-International Journal of Endorsing Health Science Research	2307-3748
208	IJEM-Iranian Journal of Endocrinology and Metabolism	1683-4844
209	IJFS-International Journal of Fertility and Sterility	2008-076X
210	IJHOSCR-International Journal of Hematology-Oncology and Stem Cell Research	2008-2207

S/N	Journal	ISSN
211	IJHPM-International Journal of Health Policy and Management	N/A
212	IJHS-Iranian Journal of Health Sciences	2322-553X
213	IJI-Iranian Journal of Immunology	1735-1383
214	IJKD-Iranian Journal of Kidney Diseases	1735-8582
215	IJMCM-International Journal of Molecular and Cellular Medicine	2251-9637
216	IJME-Iranian Journal of Medical Education	1608-9359
217	IJM-Iranian Journal of Microbiology	2008-3289
218	IJML-International Journal of Medical Laboratory <span style="border: 1px solid black; border-radius: 5px; padding: 2px;">New</span>	2423-3706
219	IJMS-Iranian Journal of Medical Sciences	0253-0716
220	IJN-Iranian Journal of Neonatology	2251-7510
221	IJOH-International Journal of Occupational Hygiene	2008-5109
222	IJO-Iranian Journal of Orthodontics	1735-5087
223	IJP-International Journal of Pediatrics	2345-5047
224	IJPM-International Journal of Preventive Medicine	2008-7802
225	IJPR-Iranian Journal of Pharmaceutical Research	1735-0328
226	IJRM-International Journal of Reproductive Biomedicine	2476-4108
227	IJVM-Iranian Journal of Veterinary Medicine	2251-8894
228	IMJ-Iraqi Medical Journal	0304-4564
229	Infectious Diseases Journal of Pakistan	1027-0299
230	International Cardiovascular Research Journal	2251-9130
231	International Journal of Diabetes and Metabolism	1606-7754
232	International Journal of Diabetes Mellitus	1877-5934
233	International Journal of Endocrinology and Metabolism	1726-913X
234	International Journal of Environmental Research	1735-6865
235	International Journal of Environmental Science and Technology	1735-1472
236	International Journal of Health Sciences	1658-3639
237	International Journal of High Risk Behaviors and Addiction	2251-8711
238	International Journal of Mycobacteriology	2212-5531
239	International Journal of Occupational and Environmental Medicine	2008-6520
240	International Journal of Organ Transplantation Medicine	2008-6490
241	International Journal of Pathology	1810-0155
242	International Journal of Radiation Research	2322-3243
243	International Journal of Women Empowerment	2413-4252
244	International Journal of Women's Health and Reproduction Sciences	N/A
245	IOJ-Iraqi Orthodontic Journal	1816-0581



S/N	Journal	ISSN
246	IPMJ-Iraqi Postgraduate Medical Journal	1608-8360
247	Iran Journal of Nursing	2008-5923
248	Iran Occupational Health	1735-5133
249	Iranian Journal of Allergy, Asthma and Immunology	1735-1502
250	Iranian Journal of Arthropod-Borne Diseases	1735-7179
251	Iranian Journal of Basic Medical Sciences	2008-3866
252	Iranian Journal of Cancer Prevention	2008-2398
253	Iranian Journal of Dermatology	0021-082X
254	Iranian Journal of Diabetes and Lipid Disorders	1726-7544
255	Iranian Journal of Emergency Medicine	N/A
256	Iranian Journal of Environmental Health Science and Engineering	1735-1979
257	Iranian Journal of Epidemiology	1735-7489
258	Iranian Journal of Health and Environment	2008-2029
259	Iranian Journal of Medical Microbiology	1735-8612
260	Iranian Journal of Medical Physics	1735-160X
261	Iranian Journal of Nuclear Medicine	1681-2824
262	Iranian Journal of Nursing and Midwifery Research [IJNMR]	1735-9066
263	Iranian Journal of Nursing Research	1735-7012
264	Iranian Journal of Nutrition Sciences and Food Technology	1735-7756
265	Iranian Journal of Obstetric, Gynecology and Infertility [The]	1680-2993
266	Iranian Journal of Ophthalmology	1735-4153
267	Iranian Journal of Otorhinolaryngology	1560-1293
268	Iranian Journal of Parasitology	1735-7020
269	Iranian Journal of Pediatrics	2008-2142
270	Iranian Journal of Psychiatric Nursing	2345-2501
271	Iranian Journal of Psychiatry	1735-4587
272	Iranian Journal of Psychiatry and Behavioral Sciences	1735-8639
273	Iranian Journal of Psychiatry and Clinical Psychology [ANDEESHEH VA RAFTAR]	1735-4315
274	Iranian Journal of Public Health	0304-4556
275	Iranian Journal of Radiology	1735-1065
276	Iranian Journal of Veterinary Research	1728-1997
277	Iranian Rehabilitation Journal	1735-3602
278	Iraqi Army Medical Journal	N/A
279	Iraqi Journal of Agriculture	1818-6645
280	Iraqi Journal of Biotechnology	N/A

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281	Iraqi Journal of Community Medicine	1684-5382
282	Iraqi Journal of Medical Sciences	1681-6579
283	Iraqi Journal of Microbiology	N/A
284	Iraqi Journal of Pharmaceutical Sciences	1683-3597
285	Iraqi Journal of Tropical Disease Researches	1814-0823
286	Iraqi New Medical Journal	2409-5931
287	IRCMJ-Iranian Red Crescent Medical Journal	1561-4395
288	IRJNS - Iranian Journal of Neurosurgery <span style="float: right; border: 1px solid black; border-radius: 5px; padding: 2px;">New</span>	2423-6497
289	ISESCO Journal of Science and Technology	2028-8077
290	Isra Medical Journal	2073-8285
291	JABHS-Journal of the Arab Board of Health Specializations	1561-0217
292	JAMC-Journal of Ayub Medical College-Abbotabad-Pakistan	1025-9589
293	JBMS-Journal of the Bahrain Medical Society	1015-6321
294	JBUMS-Journal of Babol University of Medical Sciences	1561-4107
295	JCPSP-Journal of the College of Physicians and Surgeons Pakistan	1022-386X
296	JCR-Journal of Craniomaxillofacial Research	5489-2345
297	JCVTR-Journal of Cardiovascular and Thoracic Research	2008-5117
298	JDB-Journal of Dental Biomaterials	2383-3971
299	JDT-Journal of Dentistry Tehran University of Medical Sciences	1735-2150
300	JDUHS-Journal of the Dow University of Health Sciences	1995-2198
301	JEHSD-Journal of Environmental Health and Sustainable Development <span style="float: right; border: 1px solid black; border-radius: 5px; padding: 2px;">New</span>	2426-6267
302	JEMTAC-Journal of Emergency Medicine, Trauma and Acute Care	1999-7086
303	JESN-Journal of Egyptian Society of Nephrology [The]	N/A
304	JFH-Journal of Fasting and Health	N/A
305	JIIMC-Journal of Islamic International Medical College [The]	1815-4018
306	JIMDC-Journal of Islamabad Medical and Dental College	2227-3875
307	JISHIM-Journal of the International Society for the History of Islamic Medicine	1303-667X
308	JKCD-Journal of Khyber College of Dentistry	2220-2633
309	JLDA-Journal of the Lebanese Dental Association	1810-9632
310	JLUMHS-Journal of the Liaquat University of Medical Health Sciences	1729-0341
311	JMB-Journal of Medical Bacteriology	2251-8649
312	JMJ-Jamahiriya Medical Journal	2079-1216
313	JMJ-Juba Medical Journal	N/A
314	JMRH-Journal of Midwifery and Reproductive Health	N/A
315	JMR-Journal of Medical Research	1728-1962

S/N	Journal	ISSN
316	JNE-Journal of Nursing Education	3812-2322
317	JNMS-Journal of Nursing and Midwifery Sciences	2345-5756
318	JNP-Journal of Nephropathology	2251-8363
319	JOPDAK-Journal of the Pakistan Dental Association Karachi	1680-2292
320	Jordan Journal of Pharmaceutical Sciences	1995-7157
321	Jordan Medical Journal	0446-9283
322	Journal du Practicien	1113-5667
323	Journal of Advanced Research	2090-1232
324	Journal of Advances in Medical Education and Professionalism	2322-2220
325	Journal of Anesthesiology and Pain	2228-6659
326	Journal of Arak University of Medical Sciences-Rahavard Danesh	1735-5338
327	Journal of Baghdad College of Dentistry	1680-0057
328	Journal of Basic and Applied Sciences	1814-8085
329	Journal of Basic Medical Sciences	N/A
330	Journal of Birjand University of Medical Sciences	N/A
331	Journal of Cardio-Thoracic Medicine	2345-2447
332	Journal of Childhood Studies	2090-0619
333	Journal of Client-Centered Nursing Care	N/A
334	Journal of Clinical Excellence	2322-391X
335	Journal of Clinical Laboratory [The]	1814-411X
336	Journal of Community Medicine	N/A
337	Journal of Contemporary Medical Sciences	2415-1629
338	Journal of Dental Materials and Techniques	2322-4150
339	Journal of Dental Medicine-Tehran University of Medical Sciences	1024-641X
340	Journal of Dental Research, Dental Clinics, Dental Prospects	2008-210X
341	Journal of Dental School-Shahid Beheshti University of Medical Sciences	1735-7683
342	Journal of Dentistry-Shiraz University of Medical Sciences	1728-3426
343	Journal of Dohuk University	1812-7568
344	Journal of Drug Research of Egypt	0085-2406
345	Journal of Environmental Studies	1025-8620
346	Journal of Epidemiology and Global Health	2210-6006
347	Journal of Family and Community Medicine	2230-8229
348	Journal of Family and Reproductive Health	1735-8949
349	Journal of Fundamentals of Mental Health [The]	1028-6918
350	Journal of Gorgan University of Medical Sciences	1562-4765

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351	Journal of Guilan University of Medical Sciences	2008-4048
352	Journal of Health Administration	2008-1200
353	Journal of Health and Safety at Work	2251-807X
354	Journal of Health Management and Informatics [JHMI]	2322-1097
355	Journal of Health Promotion Management [JHPM]	2251-8614
356	Journal of Health Sciences and Surveillance System	2345-2218
357	Journal of Health Scope	2251-8959
358	Journal of Health Specialties [JHS]	1658-600X
359	Journal of Health-Based Research <span style="border: 1px solid black; border-radius: 5px; padding: 2px;">New</span>	2423-7639
360	Journal of Hearing Sciences and Otolaryngology	N/A
361	Journal of Hepatology, Gastroenterology and Infectious Diseases	1110-0796
362	Journal of High Institute of Public Health [The]	2357-0601
363	Journal of Hygiene and Health	1735-2363
364	Journal of Infection and Public Health	1876-0341
365	Journal of Injury and Violence Research	2008-2053
366	Journal of Isfahan Dental School	1735-255X
367	Journal of Isfahan Medical School	1027-7595
368	Journal of Islamic Dental Association of Iran [The]-JIDA	1024-6428
369	Journal of Jahrom University of Medical Sciences	2008-7993
370	Journal of Karbala University	1813-0410
371	Journal of Kerman University of Medical Sciences	1023-9510
372	Journal of Kermanshah University of Medical Sciences [KUMS]	2251-9068
373	Journal of King Abdulaziz University-Medical Sciences	1319-1004
374	Journal of Lasers in Medical Sciences	2008-9783
375	Journal of Legal Medicine and Forensic Sciences [The]	1110-6468
376	Journal of Mashhad Dental School	1560-9286
377	Journal of Mazandaran University of Medical Sciences	1735-9260
378	Journal of Medical Council of Islamic Republic of Iran	1562-1073
379	Journal of Medical Education	1735-3998
380	Journal of Medical Sciences	1997-3438
381	Journal of Medical Sciences	1682-4474
382	Journal of Medical Students	N/A
383	Journal of Medicinal Plants	1684-0240
384	Journal of Minimally Invasive Surgical Sciences	2251-7022
385	Journal of Modern Medical Information Science	N/A

S/N	Journal	ISSN
386	Journal of Modern Rehabilitation	2008-2576
387	Journal of Nephrology Urology and Transplantation	1606-9331
388	Journal of Neyshabur University of Medical Sciences	2383-3203
389	Journal of Nursing and Midwifery Quarterly-Shaheed Beheshti University of Medical Sciences and Health Services	1605-8941
390	Journal of Ophthalmic and Vision Research	2008-2010
391	Journal of Paramedical Sciences <span style="border: 1px solid black; border-radius: 5px; padding: 2px;">New</span>	2008-496X
392	Journal of Paramedical Sciences and Rehabilitation	2322-5238
393	Journal of Patient Safety and Quality Improvement	2345-4482
394	Journal of Periodontology and Implant Dentistry	2008-7748
395	Journal of Practice in Clinical Psychology	2423-5822
396	Journal of Preventive Medicine	N/A
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398	Journal of Rafsanjan University of Medical Sciences	1735-3165
399	Journal of Rehabilitation	1607-2960
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421	Journal of the Arab Society for Medical Research	1687-4293
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439	JPAD-Journal of Pakistan Association of Dermatologists	1560-9014
440	JPC-Journal of Pediatric Club [The]	N/A
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446	JPN-Journal of Pediatric Nephrology	N/A
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448	JRH-Journal of Research and Health	2251-6395
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460	KMJ-Kuwait Medical Journal	0023-5776
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619	SPJ-Saudi Pharmaceutical Journal	1319-0164
620	SQUMJ-Sultan Qaboos University Medical Journal	2075-051X
621	SST-Sante et Securite au Travail	N/A
622	Strides in Development of Medical Education	1735-4242
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643	Weekly Epidemiology Monitor	2224-4220
644	WJPS-World Journal of Plastic Surgery	2228-7914
645	Yafteh Journal	1563-0773
646	Yemeni Journal for Medical Sciences [The]	N/A
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650	Zagazig Journal of Forensic Medicine and Toxicology	1687-160X
651	Zagazig Journal of Pharmaceutical Sciences	1110-5089
652	Zagazig Medical Association Journal	1110-2322
653	Zagazig University Medical Journal	1110-1431
654	Zahedan Journal of Research in Medical Sciences	N/A
655	Zanco Journal of Medical Sciences	1995-5588

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