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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.

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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1 Including the countries of Afghanistan, Bahrain, Djibouti, Egypt, Islamic Republic of Iran, Iraq, Jordan, Kuwait, Lebanon, Libyan Arab Jamahiriya, Morocco, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates, Yemen
Availability of photocopies
Photocopies of articles cited in IMEMR may be obtained from EMRO Library free of charge upon request.

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

**Antibodies, Antinuclear**  
**Main Subject Heading**

**immunology**  
**Subheading**

Evaluation of anti-DS DNA antibodies in anti-nuclear antibody positive Omani patients.

Alnaqdy, Adel; Al Busaidy, Juma; Hassan, Batool

E-mail:aalwan@squ.edu.om

Sultan Qaboos University - College of Medicine and Health Sciences - Department of Microbiology and Immunology

Pakistan Journal of Medical Sciences 2007; 23 (2): 211-215 (22 ref.)

First author’s affiliation

Journal Title  Year  Volume  Pages

No. of References

Descriptors

Keywords: Arthritis, Rheumatoid-diagnosis; Lupus Erythematosus, Systemic-diagnosis; Enzyme-Linked Immunosorbtent Assay; Crithidia; Fluorescent Antibody Technique

Abstract: To study the correlation between enzyme linked Immunosorbtent Assay [ELISA] and immunofluorescent [IF] anti-dsDNA antibody measurement in different diseases. One hundred and forty sera from patients with systemic lupus erythematosus [SLE, n=40], rheumatoid arthritis [RA, n=30], disease control [n=40] and from healthy control subjects [n=30] were included. Using the ELISA, serum anti-dsDNA was detected in 24/40 [60%] SLE, 5/30 [16.6%] RA, 9/40 [22.5%] disease controls and 1/30 [3.3%] of normal healthy controls. When IF assay was employed, anti-ds DNA antibodies were detected in 16/40 [40%] SLE, 3/30 [10%] RA, 5/40 [12.5%] disease controls but none in the normal subjects. These results suggest that both ELISA and IF techniques can be used for the measurement of anti-ds DNA antibodies in clinical laboratories and, these antibodies are not unique to SLE.

Figure (1): Sample of IMEMR citation
Subject Index
Abattoirs

Treatment of poultry slaughterhouse wastewater in upflow anaerobic filter under low upflow velocity.
Rajakumar, R.; Meenambal, T.; Banu, J. Rajesh; Yeom, I.T.
E-mail: rrajakumar_78@yahoo.com
Hindustan Aeronautics Ltd. - Engine Division
International Journal of Environmental Science and Technology 2011; 8 (1): 149-158 (42 ref.)
Keywords: Poultry; Water Pollution; Waste Management; Industrial Waste
Abstract: The wastewater discharged by poultry slaughterhouse industries are characterized mainly by high biochemical oxygen demand, high suspended solids and complex mixture of fats, proteins and fibers requiring systematic treatment prior to disposal. In this study, the performance of an upflow anaerobic filter reactor for treating Indian poultry slaughterhouse wastewater under low upflow velocity of 1.38 m/day at mesophilic temperature [29-35 °C] was investigated. The reactor was inoculated with anaerobic non-granular sludge from an anaerobic reactor treating the poultry slaughterhouse wastewater. The reactor took 147 days for complete start-up with removal efficiencies of total chemical oxygen demand and soluble chemical oxygen demand of 70 and 79% respectively. The maximum total chemical oxygen demand removal efficiency of 78% was achieved at an organic loading rate of 10.05 kg/m3/day and at an hydraulic retention time of 12 h. The average methane content varied between 46 and 56% and methane yield at maximum removal efficiency was 0.24 m3 CH4 /kg CODremoved.day. Sludge granules of 1-2 mm were observed in between the packing media. Scanning electron microscope analysis revealed that sludge granules are composed of clumps of Methanosarcina clustered with less intertwined Methanosaeta fibre of granules. The lower velocity used in this study has achieved better performance of the reactor by creating active microbial formation with stable pH up to an organic loading rate of 14.3 kg/m3/day. This has proved that the poultry slaughterhouse wastewater can be treated using anaerobic filter reactor under low upflow velocity.

Abortion, Spontaneous

etiology

[Assessment of relationship between spontaneous abortion and occupational exposure to organic solvents].
Mohammadi, S.; Labbafinejad, Y.; Mirzamohammadi, E.; Rahimpour, F.; Malek, M.; Attarchi, M.S.
Tehran University of Medical Sciences - Faculty of Medicine - Department and Occupational
Armaghane - danesh 2011; 16 (1): 69-79 (30 ref.)
Keywords: Occupational Exposure; Cross-Sectional Studies; Solvents-adverse effects
Abstract: Nowadays, some studies indicate the adverse effects of exposure to chemicals, especially organic solvents on the reproductive system of females. This study aimed to assess the relationship between spontaneous abortion with occupational exposure to organic solvents in pharmaceutical industry. This is a cross-sectional and descriptive-analytical study which was carried out in 2010 in one of the pharmaceutical factories located in the suburbs of Tehran. During the study, married women who were working in the factory laboratory units and were exposed to mixed organic solvents were compared with married women who were working in the packing units of the factory without occupational exposure to organic solvents. Frequency of spontaneous abortion and duration of pregnancy were assessed in both two groups. Collected data were analyzed with the SPSS software using t-test, logistic regression, and chi-square test. In the present study, the frequency of spontaneous abortion in employees with exposure to organic solvents mixture was 10.7%. This study showed that even after adjustment for confounding factors, there was a significant correlation between spontaneous abortion and occupational exposure to organic solvents mixture and this correlation increased with increasing levels of exposure to organic solvents. Moreover, a significant correlation was observed between occupational exposure to mixed organic solvents and waiting time to become pregnant [TTP]. Furthermore, this study showed that even after adjustment for confounding variables, shift workers were significantly more affected by spontaneous abortion compared to daytime workers [P<0.001]. According to the results of this study, since there is probability of spontaneous abortion resulting from occupational exposure to various chemicals including organic solvents, review of the status of occupational exposure of workers can be helpful in improving the reproductive health of female workers.
Acquired Immunodeficiency Syndrome

drug therapy

Patient-reported adverse drug reactions and drug-drug interactions: a cross-sectional study on malaysian HIV/AIDS patients.
Hasan, Syed S.; Keong, See C.; Choong, Christopher L.K.; Ahmed, Syed I.; Ching, Ting W.; Anwar, Mudassir; Ahmadi, Keivan; Babar, Muneer G.
International Medical University - School of Pharmacy and Dentistry - Department of Pharmacy Practice and Community Oral Health

Medical Principles and Practice 2011; 20 (3): 265-270 (32 ref.)
Keywords: HIV Infections-immunology; Anti-Retroviral Agents-adverse effects; Adverse Drug Reaction Reporting Systems; Cross-Sectional Studies; Drug Toxicity; Drug Interactions; Health Personnel; Health Knowledge, Attitudes, Practice

Abstract: This study aimed to explore the adverse drug reactions [ADRs] reported by patients and to identify drug-drug interactions [DDIs] among human immunodeficiency virus/acquired immunodeficiency syndrome [HIV/AIDS] patients. This cross-sectional study was conducted at the Medication Therapy Adherence Clinic, Hospital Sungai Buloh, an HIV/AIDS referral centre. The patients were randomly selected and were encouraged to describe ADRs caused specifically by any of the prescribed antiretroviral drugs [ARDs]. Sociodemographic characteristics were recorded from the patients' medical records. In addition data on antiretroviral treatment [ART], DDIs and other conventional medication were also documented. A total of 325 randomly selected HIV/AIDS patients with a mean age of 22.94 years participated in the study. The most frequently prescribed ARDs were lamivudine [64.6%], zidovudine [40.6%] and efavirenz [42.5%]. Commonly reported ADRs were fatigue [54.8%], allergic reactions [41.5%], weight loss [41.5%], dry mouth [35.1%] and memory loss [35.1%]. Female [87.8%], non-complementary and alternative medicine [CAM] users [87.3%] and participants below 50 years old [81.1%] were identified as having a higher prevalence of ADRs compared to males [79.6%], CAM users [78.7%] and participants aged 50 years or more [77.5%]. Patient age was found to be significantly associated [p = 0.048] with the ADRs. In addition, a total of 44 cases of DDIs belonging to category D were also found in this study. This study enabled us to identify the most common ADRs and DDIs associated with the use of ART. Safe and effective treatment depends on the healthcare providers' knowledge of the same.

Adhesives

toxicity

Pharmacological and toxicological evaluation of the locally abused glue "Kolla" in rats.
Elkoussi, Alaaeldin A.; Ahmed, Marwa A.; Abdel Rahman, Mahran S.
Assiut University - College of Medicine - Department of Pharmacology

Assiut Medical Journal 2010; 34 (3): 59-70 (29 ref.)
Keywords: Substance - Related Disorders; Rats; Inhalation; Brain-pathology; Histology; Glutamic Acid; Malondialdehyde; Liver; Kidney; Heart; Histology

Abstract: This work was devoted to study the physicochemical properties as well as the neuropharmacological and toxicological effects of the local glue "Kolla" which is commonly and widely abused by street children in Egypt. Chemical analysis showed that the main volatile solvent ingredient of "Kolla" is toluene and, thus, it was used as a reference toxic solvent in this study. Three different concentrations of each inhalant, glue and toluene, were investigated. Single inhalation [30 min] of both "Kolla" [1000, 4000 ppm] and toluene [5610, 22576 ppm] potentiated the sleeping time of pentobarbital. In their higher concentrations, "Kolla" [8000 ppm] and toluene [45153 ppm] antagonized the hypnotic action of pentobarbital. Single inhalation [30 min] of the tested substances produced motor incoordination and decreased locomotor activity of rats. The higher concentration of toluene [45153 ppm] increased this activity. Repeated daily inhalation [30 min/day for 10 days] of "Kolla" and toluene in the 3 tested concentrations increased locomotor activity of rats. Levels of Malondialdehyde [MDA.] in cortex and cerebellum increased after repeated inhalation of glue and toluene. Also, glutamate level in hippocampus increased after repeated inhalation of the two toxic inhalants. Extraction of liver, kidney and heart after 10 days of daily repeated inhalation showed some histopathological changes.
Adrenal Gland Neoplasms

Composite adrenal medullary tumor: a rare cause of hypertension in a young male.
Menon, Santosh; Mahajan, Pravin; Desai, Sangeeta B.
Tata Memorial Hospital - Department of Pathology
Urology Annals 2011; 3 (1): 36-38 (11 ref.)
Keywords: Adrenal Medulla; Hypertension; Ganglioneuroma; Pheochromocytoma; Tomography, X-Ray Computed
Abstract: Composite tumors of the adrenal medulla, containing pheochromocytoma and ganglioneuroma, are rare. A 27-year-old male presented to us with labile hypertension. A left suprarenal mass was detected on computed tomography. The patient was operated under the cover of alpha anti-adrenergic drugs. The histopathological examination demonstrated that the tumor consisted of pheochromocytoma and ganglioneuroma elements, and hence, a diagnosis of composite adrenal medullary tumor [CAMT] was made. To the best of our knowledge, this is the first case of CAMT reported from India.

Alzheimer Disease

Motor cortical excitability following repetitive transcranial magnetic stimulation in patients with Alzheimer's dementia.
Darwish, Esam S.; Ahmed, Mohammed A.; Ali, Anwer M.
Assiut University Hospital - Department of Neuropsychiatry
Assiut Medical Journal 2010; 34 (3): 167-178 (31 ref.)
Keywords: Transcranial Magnetic Stimulation-methods; Neurophysiology-methods; Evoked Potentials, Motor
Abstract: In Alzheimer's disease [AD], transcranial magnetic stimulation [TMS] studies have shown abnormalities of motor cortical excitability, but the exact nature of deficits and its importance are not known. The aim of the study was to establish how different mechanisms interact to promote motor system hyperexcitability in AD in relation to cognitive function and clinical features and to investigate the effect of rTMS on the excitability of the motor cortex. 45 AD patients and 37 healthy normal volunteers matched for age and sex were included in the study. Neurological evaluation, MiniMental State Examination [MMSE], and Clinical Dementia Rating [CDR], were conducted for each participant. Neurophysiological evaluations were performed before and after rTMS for all patients including resting and active motor thresholds [RMT and AMT], motor evoked potential [MEP], cortical silent period [CSP] and transcallosal inhibition [TCI]. As expected, AD patients showed a significant reduction in RMT, and AMT, shortening of MEP latency, prolonged both CSP and TCI. There is a significant negative correlation between duration of illness on one hand and RMT and AMT. The more deterioration of cognitive function associated with more increase cortical excitability [reduced RMT and AMT] in AD patients. Also there were a positive association between the hyper-excitability of the cortex and extra-pyramidal manifestation and primitive reflexes. Significant shortening of both CSP and TCI in patients receiving 20 HZ in comparison to those received 1 HZ and sham rTMS. No significant changes in RMT, and AMT after application of rTMS. AD associated with hyper-excitability of the motor cortex. These changes were correlated with duration of illness and MM SE. Twenty Hertz rTMS can produce a long lasting change in cortical excitability in AD patients through shortening of CSP and TCI.

Anemia, Aplastic

diagnosis

Aplastic anemia: clinicohaematological features, treatment and outcome analysis.
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The Aga Khan University Hospital - Department of Paediatrics and Child Health
JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 219-222 (20 ref.)
Keywords: Hematopoietic Stem Cell Transplantation; Anemia, Aplastic-therapy; Retrospective Studies; Treatment Outcome
Abstract: To determine the clinicohaematological features, treatment and outcome of children diagnosed with aplastic anemia at a single institution. Observational study. The Aga Khan University Hospital, Karachi, from January 1999 till December 2008. Medical records of children aged less than 15 years of age diagnosed with aplastic anemia were reviewed. Clinicohaematological features, treatment and its response to therapy and outcome were recorded. Results were described in percentages. Ninety patients were diagnosed to have aplastic anemia [AA]; 65 were male during the study period. Age ranged from 1 to 15 years. Fever in 65 patients [72.2%], pallor in 53 [58.8%], skin bleeding in 49 [54.4%] and epistaxis in 31[34.4%] were the most common and frequent presenting features. Congenital [Fanconi's] anemia was found in 15 [16.6%] and acquired idiopathic in 75 [83.4%] of patients. Very severe aplastic anemia [VSAA] was seen in 29 [32.2%], 26 [28.9%] had severe AA and 17 [18.9%] had moderate AA. Eight patients [8.9%] underwent haematopoietic stem cell transplantation [HSCT], 12 [13.3%] received immunosuppressive therapy
and 70 patients [77.7%] received other and supportive therapy. Five [62.5%] patients showed complete response to HSCT and 3 [37.5%] failed to engraft. IST showed complete response in 3 [25%], partial response in 5 [41.6%] and no response in 4 [33.3%]. Twenty two patients [24.4%] expired either due to infection in 16 [72.7%, fungal in 6, bacterial in 10] and intracranial haemorrhage in 6 [27.3%] cases. Majority of cases with AA were acquired and idiopathic in etiology. VSAA and SAA were frequent. Response to HSCT and IST was sub-optimal.

Anesthesia, General

mortality

Anaesthesia related mortality in ASA-1 and 2 patients as a quality improvement indicator.
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King Saud University - King Khalid University Hospital - Department of Anaesthesia
JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 234-236 (5 ref.)
Keywords: Quality Indicators, Health Care; Benchmarking; Anesthesia, General-adverse effects; Safety; Perioperative Care; Quality Improvement; Retrospective Studies; Sensation Disorders
Abstract: Quality and safety in anesthesia is usually monitored by analysis of perioperative mortality-morbidity and incidents. Clinical quality indicator, death within 48 hours of anaesthesia exposure is considered to be a flag that can alert to possible problems in individual patient care. The measurement of perioperative mortality as a quality indicator is a continuous peer reviewed quality improvement activity. Medical records and morbidity and mortality files were reviewed to see the trends and finding the benchmark of mortality in ASA-1 and 2 patient who died between 1992-2006 within 48 hours of anaesthesia exposure. Mortality in class 1 was nil. Anaesthetic mortality in ASA-1 and 2 patients was 0.35 per 10,000 and 0.74 per 10,000 of ASA-2 patient's volume. Anaesthesia-related mortality was 0.17 per 10,000 and 0.37 per 10,000 of ASA-2 patient's volume which is almost double of the overall calculated incidence. We suggest continuing monitoring of anaesthesia related mortality as a continuous quality indicator in developing countries. The reporting and analyzing of data according to the ASA status volume should be taken as a denominator. The available benchmark will help in evaluating the confounding factors and perioperative care of a particular group of patients.

Anthropometry

Facial measurements of Assiut children aged 6-11 years.
Mohamed, Refaat S.; Sayed, Sayed A.; Atia, Gamal A.; Gad Elrab, Wail M.
Assiut University - Faculty of Medicine - Anatomy Department
Assiut Medical Journal 2010; 34 (3): 19-26 (20 ref.)
Keywords: Face; Child; Riometric Identification
Abstract: The aim of the present study is to investigate changes in the facial measurements of Assiut children at the selected ages. A total of 300 healthy child aged 6-11 years old participated in the study; they were taken from primary schools in Assiut City. Children were divided into 6 age groups; each age group included 50 children [25 boys and 25 girls]. Each child was subjected to the following measurements: facial height, upper facial height, lower facial height, upper facial width, lower facial width, maxillary facial depth and mandibular facial depth. Results reveal that all facial parameters of boys are significantly higher than that of girls at all ages, but girls tend to grow faster than boys. It is also evident that most of facial parameters are correlated with each other. The pattern of facial growth of children in Assiut City indicates leptoprosopic [narrow] face type.

Anticoagulants

pharmacology

In silico design of novel anticoagulant peptides targeting blood coagulation factor VIIa.
Al Amri, Manal S.Q.; Alrasadi, Khalid; Bayoumi, Riad; Banerjee, Yajnavalka
Sultan Qaboos University - College of Medicine and Health Sciences - Department of Biochemistry
SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 83-94 (46 ref.)
Keywords: Factor VIIa-drug effects; Drug Design; Fibrinolysis-drug effects
Abstract: The coagulation cascade initiated during vascular injury prevents bleeding. Unwanted clot formation is however detrimental and requires the use of anticoagulants for prophylaxis and treatment. Anticoagulants targeting a specific step or an enzyme in the clotting process are most preferred as they minimise disadvantageous side-effects. A principal step in the discovery of novel anticoagulants encompasses the in silico design of potential leads. This study
depicts the in silico design of peptide anticoagulants targeting coagulation factor VIIa. Applying the proline bracket rule and using various bioinformatics tools: the basic alignment search tool [BLAST] of National Center for Biotechnology Information; the T-coffee module provided by European Molecular Biology Laboratory-European Bioinformatics Institute, and several modules available on the ExPASy server, we designed five bivalent chimeric anticoagulants targeting factor VIIa, using factor VIIa inhibitors - hemexstin A from Hemachatus haemachatus [African Ringhals cobra] venom and factor VIIa exosite-inhibitor peptide as templates. Six peptides were derived from hemexstin A, which were concomitantly fused with factor VIIa exosite-inhibitor peptide intermediated by a polyalanine spacer, and analysed for structural stability using the SWISS-MODEL software developed at the Swiss Institute of Bioinformatics and WebLab ViewerPro [Version 4.2]. Twelve chimeric peptides were obtained; only five exhibited stable structures in silico. The five peptides obtained are probable anticoagulant leads that should be further evaluated using suitable in vitro and in vivo assays. Further, this study shows how simple web-based modules can be used for the rational design of probable leads targeting specific physiological molecular targets.

Aortic Aneurysm, Thoracic surgery

A near fatal complication following stenting of thoracic aortic aneurysm.
Hajjar, Waseem M.; Al Nassar, Sami A.; Iftikhar, Ahmed; Alaqeed, Ahmed N. E-mail:washajjar@yahoo.com King Saud University - College of Medicine Annals of Thoracic Medicine 2011; 6 (1): 38-40 (8 ref.) Keywords: Aortic Aneurysm, Thoracic-complications; Stents-adverse effects; Airway Obstruction Abstract: Tracheobronchial obstruction along with compression of pulmonary vessels is a rare complication after stenting of aortic aneurysm. We present this rare situation in a young patient who underwent stenting of traumatic thoracic aortic aneurysm and developed this near fatal complication and also the conservative management plan which we adopted to manage this case.

Aphasia diagnosis

Acquired crossed aphasia in a dextral.
Nandhagopal, Ramachandiran E-mail:randagopal@yahoo.com Sultan Qaboos University Hospital - Department of Medicine SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 122-123 (8 ref.) Keywords: Brain-physiopathology; Magnetic Resonance Imaging; Functional Laterality

Appendectomy methods

Appendectomy; comparison of outcomes of laparoscopic versus open.
Ali, Zulfiquar; Amir, Muhammad Suhail; Ahmad, Tanveer; Rehana, A.G.; Ahmad, Irshad E-mail:zadogar145@yahoo.com Madina Teaching Hospital Professional Medical Journal - Quarterly [The] 2011; 18 (1): 97-101 (18 ref.) Keywords: Laparoscopy; Length of Stay; Surgical Wound Infection-epidemiology; Treatment Outcome; Double-Blind Method; Prospective Studies Abstract: The aim of this study was to compare the outcomes and morbidities of laparoscopic appendicectomy [LA] and open appendicectomy [OA] in patients with acute appendicitis. Interventional study. The study was conducted at Madina Teaching Hospital, University Medical and Dental College, Faisalabad. From June 2007 to August 2009. The study group consisted of two hundred patients suffering from acute appendicitis. One hundred patients underwent LA and one hundred patients underwent OA. Comparison was based on operating time, complications, requirements for postoperative analgesia, time until resumption to regular diet, hospital stay, and return to full activity in days. Comparisons were made between continuous variables using Student's t test of the means and were made between proportions using Fischer's exact or chi-square testing where appropriate. Statistical significance was taken to be a p
value of .05 or less. Of the hundred patients, five patients [5%] had the procedure converted to open surgery. The rate of infection was significantly lower in patients undergoing LA. The median length of stay was significantly shorter after LA [2 days after LA, 5 days after OA, P < 0.05] than after OA. The operating time was shorter [OA: 25 min [median], LA: 30 min [median], P > .05] in patients undergoing open appendectomy compared to laparoscopic appendectomy. LA is associated with increased clinical comfort in terms of fewer wound infections, faster recovery, earlier return to work and improved cosmesis.

Appendectomy; assessment of caecal invagination of appendicular stump.
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Department of Surgery
Keywords: Treatment Outcome; Prospective Studies
Abstract: To evaluate the usefulness of invagination/burial of appendicular stump after removal of appendix. A prospective, non randomized comparative study. CMH Kharian and PAF Hospital Mianwali. 2005-2007. Three hundred patients were included in this study. Appendectomy was performed through Lanz incision. After removal of the appendix stump was buried/invaginated in 150 patients while it was not buried in other 150 patients. 198 patients were males and 102 patients were females. The youngest patient was 14 years old and the eldest was 55 years old. Perforated and gangrenous appendices were not included in this study. There was hardly any difference in outcome of patients in both groups except that 10 patients in first group had longer hospital stay due to symptoms like more pain, fever and infection. Burial or otherwise of appendicular stump does not make much difference. It was concluded that there was no added benefit of invagination of appendicular stump rather it takes more operative time and at times it has negative implications too.

Appendicitis
diagnosis

Stump appendicitis following laparoscopic appendectomy.
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Manipal University - Kasturba Medical College - Departments of Surgery
SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 112-114 (12 ref.)
Keywords: Appendectomy-adverse effects; Appendicitis-ultrasonography; Diagnosis, Differential; Tomography, X-Ray Computed; Postoperative Complications; Acute Disease
Abstract: Stump appendicitis [SA] is a rare clinicopathologic entity characterized by inflammation of the appendiceal remnant after incomplete appendectomy. The diagnosis is not routinely suspected in patients who have previously undergone appendectomy. We report a case of SA in an adolescent boy who had previously undergone laparoscopic appendectomy. The case necessitated surgical completion of the appendectomy.

Arteriovenous Malformations
diagnosis

Congenital pelvic arteriovenous malformation presenting with urinary retention: a case report.
Hammad, Fayez T.; Shawish, Fahmy; Kazim, Essa
United Arab Emirates University - Faculty of Medicine and Health Sciences - Department of Surgery
Medical Principles and Practice 2011; 20 (3): 294-296 (10 ref.)
Keywords: Urinary Retention-etiology; Pelvis-blood supply; Tomography, X-Ray Computed; Cystostomy-adverse effects; Congenital Abnormalities
Abstract: To report a case of congenital pelvic arteriovenous malformation [pAVM] with urinary retention. A 39-year-old male patient presented with inability to void urine for 8 h. He did not have a history of dysuria or fever, but had increasing urinary frequency and difficulty in voiding over 2 years. Examination revealed a suprapubic mass without external signs of vascular anomaly. A huge, soft, irregular, non-pulsating mass was felt rectally. This mass did not disappear on urinary bladder decompression. Subsequent ultrasound and CT scan revealed pAVMs filling most of the pelvic cavity. To our knowledge, this is the first report of a male patient with congenital pAVM presenting with urinary retention, emphasizing the need for a high index of suspicion for pAVM to avoid potential severe bleeding during suprapubic catheterization for urinary drainage.
Asthma

Difficult-to-treat asthma, is it really difficult?
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prevention and control

Asthma control in Oman. National results within the asthma insights and reality in the gulf and the near east [AIRGNE] study.
Al Busaidi, Nasser; Soriano, Joan B.
E-mail: enhsa@hotmail.com
Royal Hospital - Department of Medicine
SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 45-51 (13 ref.)
Keywords: Disease Management; Guideline Adherence; Health Surveys; Questionnaires
Abstract: The Asthma Insights and Reality [AIR] study in the Gulf and Near East [one of a worldwide series of surveys conducted in adults and children to assess asthma control] was conducted in Oman to assess how closely asthma control meets international guidelines recommendations. From January 2007 to March 2008, asthmatics receiving treatment or currently suffering from asthma symptoms were interviewed among nationals randomly surveyed from the most populated urban areas in Oman [Muscat, Sohar and Nizwa]. The standard AIR questionnaire was used to assess symptom severity, health care utilization, limitation of activity and medication use. From 201 asthmatic participants, 21% were under 16 years and 43% were female. Tobacco use was low in our asthmatics. Disparity in asthma perception was wide in Oman; while 57% of asthmatics perceived their asthma as well or completely controlled, actually 54% had poorly or not well controlled asthma. All recommendations for asthma control by the Global Initiative for Asthma were largely unmet, especially in child asthmatics, with 44% reporting night awakenings due to asthma during the previous 4 weeks and 47% exercise-induced asthma in the previous 12 months. Overall, 32.6% of children and 34.8% of adults reported absence due to asthma from school/work during the previous year. Use of preventive inhaled corticosteroids was only 5.0%, one of the lowest even within the AIR Gulf and Near East study, producing an unacceptable ratio ICS/SABA [inhaled corticosteroid/short acting beta-agonist] of 0.054 in Omani asthmatics. Asthma control in Oman falls far below the goals of current international guidelines therefore corrective strategies are needed.

Automobile Driving

standards

Improving road safety through deterrence-based initiatives. A review of research.
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Queensland University of Technology - Institute of Health and Biological Innovation - Centre for Accident Research and Road Safety
SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 29-37 (53 ref.)
Keywords: Alcohol Drinking-adverse effects; Accidents, Traffic-prevention and control; Safety; Liability, Legal
Abstract: The efficacy of road safety countermeasures to deter motorists from engaging in illegal behaviours is extremely important when considering the personal and economic impact of road accidents on the community. In many countries, deterrence theory has remained a cornerstone of criminology and criminal justice policy, particularly within the field of road safety, as policy makers and enforcement agencies attempt to increase perceptions regarding the certainty, severity and swiftness of sanctions for those who engage in illegal motoring behaviours. Using the Australian experience [particularly the tremendous amount of research into drink driving], the current paper reviews the principles underpinning deterrence theory, the utilisation of the approach within some contemporary road safety initiatives [e.g., random breath testing] as well as highlighting some methods to enhance a deterrent effect. The paper also provides direction for future deterrence-based research, in particular, considering the powerful impact of non-legal sanctions, punishment avoidance as well as creating culturally embedded behavioural change.
Sequence analysis of bla [CTX-M] genes carried by clinically significant Escherichia coli isolates in Kuwait hospitals.

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Kuwait University - Faculty of Medicine - Department of Microbiology

**Abstract:** To investigate the extent, distribution and sequence analysis of bla[CTX-M] genes carried by Escherichia coli isolated from patients admitted to all government hospitals in Kuwait. Extended-spectrum beta-lactamase [ESBL]-producing E. coli isolates were collected from the 8 major hospitals in Kuwait. CTX-M ESBLs were analyzed by PCR and sequenced. Clonality of the positive isolates was determined for genetic relatedness using pulsed-field gel electrophoresis [PFGE] with XbaI digestion of the genomic DNA. Of the 136 ESBL-positive isolates, 106 [77.9%] harbored bla[CTX-M] genes. Among these, bla[CTX-M-15] was the most frequent with a prevalence rate of 84.1%, followed by bla[CTX-M-14] [6.8%], bla[CTX-M-14b] [5.7%] and bla[TOHO-1] [3.4%]. Ninety-three [87.7%] were isolated from Kuwaiti [35.9%], Egyptian [31.1%] and Indian [20.8%] nationals; the majority of isolates positive for bla[CTX-M-15] were mainly from these 3 nationalities. PFGE analysis did not demonstrate any clustering of positive isolates in any particular hospital. This study confirms an explosive emergence of CTX-M-15 beta-lactamase among E. coli isolates in Kuwait and shows that the strains were clonally heterogeneous with no evidence of inter- or intra-hospital spread. Thus Kuwait may represent an important source of CTX-M-15-positive E. coli.

Biodegradation of cypermethrin by a newly isolated actinomycetes HU-S-01 from wastewater sludge.

Ministry of Education - Key Laboratory of Natural Pesticide and Chemical Biology

**Abstract:** A new cypermethrin degrading strain was isolated from wastewater sludge using enrichment technique. On the basis of morphological, physiological, biochemical characteristics tests and 16S rDNA sequence analysis, the strain was determined to be a Streptomyces species, probably a strain of Streptomyces parvulus, so it was designated as Streptomyces sp. HU-S-01. The strain Streptomyces sp.HU-S-01 is aerobic and optimum growth temperature for the strain was found to be 26-28°C with initial pH range 6.0-9.0 and pH 7.5 was found to be the optimum. This strain can also completely degrade 3-phenoxybenzoic acid within 96 h at the concentration of 50 mg/L. The kinetic constants Vmax, Km, Kcat and Kcat/ Km of enzyme for cypermethrin were 1.236 micro mol/min, 6.418 micro mol/mL, 13.493 min and 2.102 mL/mol.min, respectively. The degradation products of cypermethrin were identified using gas chromatograph-mass spectrometric [GC-MS] analysis. The degradation pathway followed by HU-S-01 involves oxidative as well as hydrolyzing. Biodegradation ability of strain Streptomyces sp. HU-S-01 without toxic byproducts reveals its potential for further study as a biological agent for the remediation of soil, water or crops, contaminated with cypermethrin.

Biodiesel production using solid metal oxide catalysts.

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Cairo University - Faculty of Engineering - Department of Chemical Engineering

**Abstract:** Biodiesel production is worthy of continued study and optimization of production procedures due to its environmentally beneficial attributes and its renewable nature. Heterogeneous transesterification is considered to be a green process. The process requires neither catalyst recovery nor aqueous treatment steps and very high yields of methyl esters can be obtained, close to the theoretical value. However, heterogeneously catalyzed transesterification generally requires more severe operating conditions, and the performance of heterogeneous catalysts is generally lower than that of the commonly used homogeneous catalysts. Heterogeneous catalysis for biodiesel production has been extensively investigated in the last few years. Many metal oxides have been studied for the transesterification
process of oils; these include alkali earth metal oxides, transition metal oxides, mixed metal oxides and supported metal oxides. The use of solid metal oxides as catalysts in oil transesterification is well established, accordingly, researchers’ attempts are now focused on how to attain the highest catalyst activity. Catalyst activity is a function of its specific surface area, base strength and base site concentration. High specific surface area, strong base strength and high concentration of base sites are characteristics of an active transesterification catalyst. This review provides a brief overview of the different metal oxides frequently used in the process of transesterification of oils for the production of biodiesel with special reference to the various methods of catalyst preparation and catalyst characterization. Reaction conditions and catalyst leaching analysis are also highlighted. Finally, concluding remarks regarding catalyst selection and catalyst preparation steps are provided.

Blindness, Cortical

epidemiology

Cortical visual impairment in children - a new challenge for the future?.
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Department of Pediatric Ophthalmology
Keywords: Blindness, Cortical-etiolo; Prognosis; Risk Factors; Visual Cortex

Blood Gas Analysis

Comparison and agreement between venous and arterial gas analysis in cardiopulmonary patients in Kashmir valley of the Indian subcontinent.
Koul, Parvaiz A.; Khan, Umar Hafiz; Wani, Abdul Ahad; Eachkoti, Rafiqa; Jan, Rafi A.; Shah, Sanaullah; Masoodi, Zarka; Qadri, Syed Mudassir; Ahmad, Muneeb; Ahmad, Arasar
E-mail:parvaizk@gmail.com
Sher-i-Kashmir Institute of Medical Sciences - Department of Internal and Pulmonary Medicine
Keywords: Arteries; Veins; Bicarbonates-blood; Pulmonary Heart Disease; Oxygen-blood; Carbon Dioxide-blood; Prospective Studies
Abstract: Arterial blood gas [ABG] analysis is routinely performed for sick patients but is fraught with complications, is painful, and is technically demanding. To ascertain agreement between the arterial and peripheral venous measurement of pH, pCO₂, pO₂, and bicarbonate levels in sick patients with cardiopulmonary disorders in the valley of Kashmir in the Indian subcontinent, so as to use venous gas analysis instead of arterial for assessment of patients. Sher-i-Kashmir Institute of Medical Sciences, Srinagar, Kashmir, a 650-bedded tertiary care hospital in North India located at an altitude of 1584 m. One hundred patients who required ABG analysis were admitted. Peripheral venous blood was drawn within 5 min of an ABG measurement, and the samples analyzed immediately on a point of care automated ABG analyzer. Finger pulse oximetry was used to obtain oxygen [SpO₂] saturation. Data were analyzed using Pearson correlation and bias [Bland Altman] methods. The venous measurements of pH, pCO₂, pO₂ and bicarbonate, and the digital oxygen saturation were highly correlated with their corresponding arterial measurements. Bland Altman plots demonstrated a high degree of agreement between the two corresponding sets of measurements with clinically acceptable differences. The difference in pO₂ measurements was, however, higher [-22.34 +/- 15.23] although the arterial saturation and finger oximetry revealed a good degree of agreement with clinically acceptable bias. Peripheral venous blood gas assessment in conjunction with finger pulse oximetry can obviate the routine use of arterial puncture in patients requiring ABG analysis.

Blood Pressure

drug effects

[Double blind clinical trial the comparison aspirin effect at two different time of circadian on 24 hours blood pressure mean women at preeclampsia risk].
Abdali, K.H.; Taghizadeh, R.; Amoei, S.; Tabatabai, S.H.R.
Shiraz University of Medical Sciences - School of Nursing and Midwifery - Department of Midwifery
Armaghane - danesh 2011; 16 (1): 41-50 (27 ref.)
Keywords: Aspirin-therapeutic use; Aspirin-administration and dosage; Pre-Eclampsia; Double-Blind Method
Abstract: Gestational hypertension and preeclampsia are important maternal and fetal-infant complications and the second cause of maternal death [after embolism]. This study is a clinical trial was done on 64 women at preeclampsia risk. The patient came under study with convenience method. The control group 1 taking placebo in the morning, control group 2 taking placebo at bedtime, experimental group 1 taking 100 mg aspirin in the morning and experimental group 2 taking 100 mg aspirin at bedtime. This intervention started at 12 to 16 weeks of gestation and continued up to 32 weeks. Blood pressure monitoring device was recorded patient's blood pressure before and after taking drug at the end of each month for 24 hours until delivery. Clinical information of the patients was collected and registered in special form and was analysis with statistical method analysis variations at the level of 5% by using SPSS version 16. The age of participants were between 17-42 years with mean 28.71 SD +/- 5.87%. The systolic blood pressure mean at the time of entering were computedo6.20 +/- 4.936% and the diastolic blood pressure 61.909 +/- 5.373%. 24 hour Blood reassuring mean of the sampling who take aspirin before bedtimewas significantly less than control groups and group taking aspirin in the morning during pregnancy [for systole and diastole P <0.001]. The effect of taking aspirin at bedtime is more on blood pressure mean reduction compared with taking it in the morning and placebo in women at preeclampsia risk.

Breast Feeding

Breast feeding; factors involved in avoidance.
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Military Hospital
Keywords: Lactation; Cross-Sectional Studies; Health Education

Abstract: To study the causative factors responsible for avoidance of Breast Feeding in post-partum women attending the post-natal OPD in MH Rawalpindi. Comparative cross sectional study. Dept of Gynae and Obstetrics, Military Hospital, Rawalpindi. Tertiary care centre from all the Pakistan dealing with other ranks of Pak Army. Nine months [From 01.01.2007 to 1.10.2007]. Study was done on 1000 patients at post-natal Gynae OPD. Patients were divided into two groups of 500 each. Those patients who were exclusively breast feeding their babies were included in group-II while group-I included those patients who were not breast feeding their babies at all. Patients demographic data was entered on questionnaire and factors involved were interpreted. The most important causative factor responsible for avoidance of breast feeding in group-I were noted down. The mothers in group-II were enquired about that problem. Data was analyzed by using computer software programme SPSS version 11. Chi square test was used to see the significance of difference between group-I and group-II and results were considered significant if P value is less than 0.05. The study showed that as compared to group-II causative factors involved in avoidance of breast feeding in group-I were pain at operated site 148, working women 38, Sick baby 26, Cracked nipples and mastitis 59, Breast abscess 4, Social Myths 58, Multiple Births 2, Inverted Nipples 5 and failure of proper counseling 160. Most of the factors responsible for avoidance of breast feeding are preventable and treatable. General population should be educated regarding the benefits of breast feeding in the mother and baby. Thus reducing mortality rate in woman and infants.

Breast Neoplasms

drug therapy

The prognostic value of triple negative in stage II/III breast cancer.
Elnashar, Afaf T.; Ali, El Sayed M.; Gaber, Ahmed
Sohag University - Pathology Department
Assiut Medical Journal 2010; 34 (3): 99-110 (42 ref.)
Keywords: Neoplasm Staging; Immunohistochemistry; Prognosis; Chemotherapy, Adjuvant

Abstract: Breast cancer is no longer seen as a single disease but rather a multifaceted disease composed of distinct biological subtypes with diverse natural history, clinical, pathological and molecular features. Recent attention has been directed at molecular classification of breast cancer. To evaluate the prognostic value of triple negative subtype in stage II/III breast cancer. To define the role of clinical stage in prognosis of breast cancer We used immunohistochemical technique to divide 255 cases of breast cancer, stages II and III, into four subtypes according to estrogen receptor/progesterone receptor [ER/PR] and Her-2 expression. Triple-negative subtype comprised 76.5% of the cases with 12.3% recurrence rate. Luminal A subtype also carried a poor out come with 16. 7% recurrence rate. Triple negative subtype has the worst overall and disease-free survival in stage II/III breast cancer. Clinical stage is still an independent prognostic factor in breast cancer of all types.
**Bronchiectasis**

Surgery for bronchiectasis: the effect of morphological types to prognosis.

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**Keywords:** Bronchiectasis-therapy; Retrospective Studies; Pneumonectomy; Treatment Outcome

**Abstract:** Although the incidence has declined over the past years in societies with high socioeconomic status, bronchiectasis is still an important health problem in our country. To review and present our cases undergoing surgery for bronchiectasis in the past 12 years and their early and late term postoperative outcomes and our experience in bronchiectasis surgery and the effect of morphological type on the prognosis. The medical records of 62 cases undergoing surgical resection for bronchiectasis in the Clinics of Thoracic and Pediatric Surgery were evaluated retrospectively. The disease was on the left in 33 cases, on the right in 26 and bilateral in three cases. The most common surgical procedure was lobectomy. Forty one patients underwent pneumonectomy, lobectomy and complete resection including bilobectomy. Twenty-one [33.87%] cases underwent incomplete resection, of whom 11 [17.74%] underwent segmentectomy and 10 [16.13%] underwent lobectomy + segmentectomy. It was found that the rate of being asymptomatic was significantly higher in patients undergoing complete resection compared to those undergoing incomplete resection. Spirometric respiratory function tests were performed to assess the relationship between morphological type and the severity of disease. All parameters of respiratory function were worse in the saccular type and FEV1 /FVC showed a worse obstructive deterioration in the saccular type compared to the tubular type. The success rate of the procedure increases with complete resection of the involved region. The morphological type is more important than the number and extension of the involved segments in showing the disease severity.

**Budd-Chiari Syndrome**

Presentation of hospital outcomes and different treatment methods of patients with Budd-Chiari syndrome: a report from two tertiary hospitals in Iran.

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Mashhad University of Medical Sciences [MUMS] - Department of Cardiology


**Keywords:** Age Factors; Early Diagnosis; Diagnosis, Differential; Angioplasty, Balloon; Treatment Outcome

**Abstract:** The aim of this study was to report common presentations of Budd-Chiari syndrome [BCS] and the early outcome of different treatment methods in two tertiary hospitals in Iran. This case series study was performed on 21 patients [mean age: 42 +/- 13.09 years; 11 male, 52.4%, and 10 female, 47.6%] admitted for treatment of BCS in two tertiary referral centers in Mashhad, Iran, between 2002 and 2008. All required data of signs, underlying etiology, treatment methods and in-hospital mortality were gathered from patients’ medical records. Angiographic and sonographic findings showed that the most frequent isolated location of obstruction was the inferior vena cava [n = 12, 57.1%]. No distinct underlying disease was found in 6 [28.6%] patients. Eleven [52.4%] patients had web obstruction and 4 patients had other related underlying diseases. Treatment modalities consisted of medical follow-up in 12 [57.1%], angioplasty in 6 [28.6%], and surgery in 3 [14.3%] patients. Medical follow-up of 3 patients, 1 with angioplasty and 2 who had undergone surgery, disclosed that they had died before discharge from hospital. Higher age at diagnosis may reflect late diagnosis at an advanced stage of disease. We suggest that the early symptoms of this disease should be taken into account more seriously in differential diagnosis. Balloon angioplasty seems to be a more efficient method for treatment of BCS.

**Burns**

Immunology

Effect of major burn on immunophenotype of peripheral blood T lymphocytes.

Sayed, Douaa; Bakry, Rania; El Shazly, Mohamed; Fekry, Morees; Terzaki, Soraya; El Oteify, Mahmoud

South Egypt Cancer Institute - Department of Clinical Pathology

Assiut Medical Journal 2010; 34 (3): 1-8 (19 ref.)

**Keywords:** T-Lymphocytes; Antigens, CD3-blood; Antigens, CD4-blood; Antigens, CD8-blood; Interleukin-2 Receptor alpha Sub Unit-blood; HLA DR Antigens-blood
Abstract: The immunosuppressive effect of a major burn has been known for many years. However, a complete understanding of the effects of a burn on the immune system remains elusive. Lymphocytes immunophenotype is a reflection of the functional level of immune system. There is little knowledge concerning the expression of HLA-DR on peripheral blood [Pb] T lymphocytes. T lymphocytes of 26 major burn [25-40%] patients were analyzed in 24 hours, 1 week and 2 weeks after burn, using, monoclonal antibodies of CD3, CD4, CD8, CD25 [IL2R] and HLA-DR by flow cytometry and comparing them with those of 26 apparently healthy donors. There was statistically significant reduction in absolute number of CD3 [p<0.0001], CD4/CD8 ratio [p=0.01] in the first 24 h in comparison with controls. CD25 [IL2R] shows insignificant upregulation on T lymphocytes after burn with significant upregulation of HLA-DR. The absolute number of CD3[+] cells began to increase after 2 weeks [p=0.03], but still reduced than controls [p=0.08]. CD4/CD8 ratio was more or less as healthy control after 2 weeks. Upregulation of CD25 was insignificantly increased and that of HLA-DR were markedly increased after 2 weeks. The absolute number CD25 and HLA-DR[+] T lymphocyte subsets all over the time of the study are low than controls except that of HLA-DR[+] T lymphocytes after 2 weeks [p=0.009]. The data obtained suggest persistent activation of T lymphocytes 2 weeks post major burns. HLA-DR expression can reflect post burn lymphocyte activation.

Calcification, Physiologic

Vascular calcification in patients with chronic kidney disease: types, clinical impact and pathogenesis.
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Universidad de Oviedo - Hospital Universitario Central de Asturias - Bone and Mineral Research Unit
Medical Principles and Practice 2011; 20 (3): 203-212 (101 ref.)
Keywords: Kidney Failure, Chronic-pathology; Vascular Diseases-pathology; Bone Diseases, Metabolic-etiology; Disease Progression; Risk Factors; Phosphorus
Abstract: Vascular calcification plays a major role in cardiovascular disease, which is one of the main causes of mortality in chronic kidney disease patients. Vascular calcification is determined by prevalent traditional and uraemia-related [non-traditional] risk factors. It occurs mainly in the arteries, which are classified into three types according to their size and structural characteristics. In addition, vascular calcification has been associated with bone loss and fractures in chronic kidney disease patients and the general population, stressing the fact that both disorders can share pathogenetic pathways. The strategies to control vascular calcification involve several measures, chief among them the control of hyperphosphataemia. Furthermore, it has been recently described that strategies that reduce bone resorption and increase bone mineralization may decrease the risk of vascular calcifications; however, this approach still remains controversial. The mechanisms involved in vascular calcification are complex and not yet fully understood. Phosphorus plays a major role, while other factors related to bone formation have been recently identified.

Candidiasis, Oral

epidemiology

Prevalence of Candida dubliniensis among oral Candida isolates in patients attending the Kuwait University Dental Clinic.
Ellepola, Arjuna N.B.; Khan, Zia U.; Joseph, Bobby; Chandy, Rachel; Philip, Leeba
Kuwait University - Faculty of Medicine - Departments of Bioclinical
Medical Principles and Practice 2011; 20 (3): 271-276 (27 ref.)
Keywords: Candida albicans-isolation and purification; Culture Media-chemistry; Carrier State; Diabetes Mellitus-microbiology; Outpatient Clinics, Hospital
Abstract: The aim of this study was to determine the oral candidal carriage of patients seeking dental treatment at the Kuwait University Dental Clinic and to ascertain the Candida species composition among them. 370 oral rinse samples were collected from patients. The germ tube test, CHROMagar Candida medium and VITEK 2 yeast identification system were used for species identification. C. dubliniensis isolates were confirmed by the production of rough colonies with hyphal fringes and chlamydospores on simplified sunflower seed agar. Of the 370 samples investigated, 160 [43.24%] showed Candida in culture. The isolation of Candida was significantly higher in individuals who were smokers or were under medication for either diabetics or asthma [99 [62%]] compared to healthy individuals [61 [38%]]. Of the 210 samples which did not yield Candida, 131 [62.38%] were healthy and 79 [37.62%] were associated with smoking or with usage of drugs for aforementioned conditions. Species isolated were C. albicans [102 [63.7%]]; C. dubliniensis [23[14.3%]]; C. krusei [13 [8.1%]]; C. tropicalis [12 [7.5%]] and C. glabrata [10 [6.2%]].Candida species were more prevalent in patients having predisposing factors implicated in oral candidosis, such as in smokers, diabetic patients and asthmatic patients using inhalation steroids. C. albicans was the most prevalent species isolated, followed by C. dubliniensis.
Carbazoles

therapeutic use

**Antiapoptotic effect of carvedilol and vitamin E in diabetic nephropathy and cardiomyopathy.**

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Assiut University - Faculty of Medicine - Department of Pharmacology

*Assiut Medical Journal* 2010; 34 (3): 179-194 (48 ref.)

**Keywords:** Vasodilator Agents; Apoptosis; Vitamin E-therapeutic use; Diabetic Nephropathies; Diabetic Cardiomyopathies; Rats; Proto-Oncogene Proteins C-bcl-2-blood

**Abstract:** Oxidative stress plays a dominant role in the pathogenesis of diabetes mellitus. Bcl-2 gene has close connection with antioxidant stress destruction in many diseases including diabetes. Bcl-2 gene also has anti apoptotic effect. Carvedilol, is novel beta-adrenoreceptor blocker, which has antioxidant and free radical scavenger properties. In physicochemical, biochemical and cellular assay carvedilol inhibited the formation of reactive oxygen radicals and lipid peroxidation and prevented the depletion of endogenous antioxidants. Moreover, it was reported that carvedilol enhanced the expression of Bcl-2 gene which has antioxidant and anti-apoptotic effects. There are few researches on the effect of Carvedilol on diabetic cardiomyopathy and nephropathy. Whether carvedilol can improve cardiac or renal function in diabetic animal models and the ability of carvedilol to express the Bcl-2 gene and compare its antioxidant effect with a traditional antioxidant like vitamin E is our aim of the current study. In this study we used streptozotocin to induce diabetes mellitus in male albino rats, we investigated carvedilol-administrated in healthy and streptozotocin-induced diabetic rats for 6 weeks as well as vitamin E to compare their effects on biochemical parameters [blood glucose level, lipid profile, serum levels of thiobarbituric acid [TBAS] and total antioxidant status [TAOS], renal function tests, creatinin phosphokinase [CPK], expression of Bcl-2 protein in the cardiac and renal tissues and histopathological examination in the cardiac and renal tissues. The study showed that, the diabetic rats not only had cardiac and renal dysfunction, high levels of blood glucose and lipid peroxide, lower levels of TAOS, but also showed lower expression of Bcl-2 protein. Carvedilol and vitamin E treatments improved renal and cardiac functions, lowered blood glucose, serum lipids and lipid peroxide, increased levels of TAOS and expression of Bcl-2 protein in healthy rats as well as diabetic rats. In addition they have protective effects on cardiac and renal tissues. These results indicated that carvedilol and vitamin E partly improve cardiac and renal function via their antioxidant properties in diabetic rats.

Carbon Tetrachloride

toxicity

**Modulatory effects of garlic oil and silymarin on carbon tetrachloride-induced liver injury in rats.**

Wafay, Hanaa A.; Elaithy, Nabila A.; El Saaid, Gamila S.; Agaiby, Mervat H.; El Toukhy, Safinaz E.; Youness, Eman R.; Eldaly, Sherien M.

National Research Center [NRC] - Medical Biochemistry Department

*New Egyptian Journal of Medicine [The]* 2010; 42 (4): 341-348 (41 ref.)

**Keywords:** Liver-pathology; Liver Function Tests; Garlic; Silymarin; Protective Agents; Rats; Oxidative Stress

**Abstract:** The present study was conducted to investigate the modulatory effects of silymarin and garlic oil on carbon tetrachloride [CCl4]-induced hepatotoxicity in male albino rats. Animals were orally intoxicated with CCl4, after 72 hours liver toxicity was assessed. Oral administration with silymarin or garlic was then continued for 60 days. Serum alanine transaminase [ALT], aspartate transaminase [AST], gamma-glutamyl transaminase[GGT], superoxide dismutase SOD), catalase [CAT], advanced oxidation protein product [AOPP], urinary F2 isoprostanes and 8 hydroxy 2-deoxyguanosine [8-OHdG] were measured. Intoxication of rats with CC14 induced significant elevation in serum liver enzymes. It also increased oxidative stress through the increase in F2 isoprostanes, AOPP and 8-OHdG, but it reduced SOD and CAT as compared to that of the controls. Oral administration of silymarin or garlic oil improved these adverse effects. Silymarin or garlic has the ability to suppress the occurrence of CCl4 induced hepatotoxicity in rats by alleviating oxidant status.

Carcinoma, Hepatocellular

complications

**Massive hemorrhage from spontaneous ruptured hepatocellular carcinoma controlled by isoamyl 2-cyanoacrylate: a case report.**

Al Fraij, Abdullah K.; Dhar, Piyaryar Mohan; Al Khalejy, Ayman; Najem, Fadi Abu

Al-Adan Hospital - Department of Surgery
Medical Principles and Practice 2011; 20 (3): 297-299 (11 ref.)

**Keywords:** Hemoperitoneum-etiology; Cyanoacrylates-therapeutic use; Rupture, Spontaneous; Liver Neoplasms

**Abstract:** To report a case of ruptured hepatocellular carcinoma with massive hemoperitoneum which was successfully controlled with isoamyl 2-cyanoacrylate. A 46-year-old Bangladeshi gentleman presented to our casualty complaining of acute abdominal pain and distension, associated with jaundice. Bedside abdominal ultrasound showed multiple focal lesions in the liver with fluid in the abdomen. The patient was vitally unstable, so he was resuscitated and underwent emergency laparotomy for massive hemoperitoneum due to a ruptured tumor nodule. Isoamyl 2-cyanoacrylate was applied to the ruptured nodule which stopped bleeding within 1-2 min. This case shows the effectiveness of isoamyl 2-cyanoacrylate in controlling bleeding in ruptured liver tumors.

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**Carcinoma, Papillary**

**diagnosis**

**Papillary thyroid carcinoma with tuberculous cervical lymphadenopathy mimicking metastasis.**
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Jinnah Postgraduate Medical Centre - Department of Surgery
JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 207-209 (22 ref.)

**Keywords:** Lymphatic Metastasis; Tuberculosis, Lymph Node-ultrasonography; Lymph Nodes-pathology; Thyroid Neoplasms-pathology

**Abstract:** To determine the frequency of tuberculous cervical lymphadenopathy mimicking metastasis from papillary thyroid cancer. Case series. Surgical Unit-I, Ward-3 of Jinnah Postgraduate Medical Centre, Karachi, from March 2005 to March 2010. All patients above 12 years of age of either gender diagnosed on investigations as papillary thyroid cancer [PTC] were included in the study. Ultrasound and fine needle aspiration cytology [FNAC], neck of solitary thyroid nodules [STN] and cervical lymph nodes were done. Total thyroidectomy and excision biopsy of cervical lymph nodes was performed, histopathological results were recorded and patients were managed accordingly. A total of 55 patients had PTC and 25 had cervical lymphadenopathy. Eighteen patients of PTC with cervical lymphadenopathy were diagnosed after investigations as cases of tuberculous cervical lymphadenopathy [TCL] initially considered as metastasis from PTC; 5 patients had metastasis from PTC. Two patients proved to be of reactive hyperplasia which initially showed tuberculous cervical lymphadenopathy on FNAC. So 80% patients of cervical lymphadenopathy with PTC were due to benign disease and 20% had metastasis in lymph node due to PTC. PTC with cervical lymphadenopathy due to co-existent tuberculosis is common. Metastasis from PTC in lymph nodes were less common than tuberculous lymphadenitis in this study. Tuberculosis should be considered before deciding for neck dissection in cases of PTC.

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**Carotid Artery, Internal**

**abnormalities**

**An aberrant Internal carotid artery [ICA] in the mouth [presentation of two cases].**
Abumokhtada, Hussein; Lutfi, Sameh; Aboorosh, Ahmed
Omer Almoukhtar University - Althawra Central and Teaching Hospital
New Egyptian Journal of Medicine [The] 2010; 42 (4): 349-351 (4 ref.)

**Keywords:** Mouth; Pharynx

**Abstract:** The cervical internal carotid artery [ICA] normally runs straight to the skull base without branching. However, aberrant courses of the extra cranial internal carotid artery are not rare and may replace the vessel in close relationship with the pharyngeal wall and may be misdiagnosed, leading to serious complications. We present this clinical observation to draw the readers’ attention on a underappreciated anatomical variation.
Cataract

drug therapy

Combined intravitreal bevacizumab with phacoemulsification in visually significant cataract and visually significant exudative maculopathy.
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American University of Beirut - Department of Ophthalmology
Keywords: Phacoemulsification; Macular Degeneration-drug therapy; Antibodies, Monoclonal-therapeutic use; Vascular Endothelial Growth Factor A-therapeutic use; Prospective Studies; Treatment Outcome; Cataract Extraction
Abstract: We investigated the visual outcome of combined phacoemulsification with intravitreal bevacizumab, in eyes with dense cataract and visually significant exudative maculopathy. Prospective longitudinal pilot study of consecutive patients treated by two surgeons in 2006, using intravitreal bevacizumab at the end of phacoemulsification. The historical control group consisted of consecutive subjects with exudative maculopathy and dense cataract treated by the same surgeons with the help of phacoemulsification without intravitreal bevacizumab prior to 2006. Thirty-one treated patients had the mean [SD] logMar best corrected visual acuity improving from -1.48 [0.50] preoperatively to -0.67 [0.38] in the first postoperative week [p< 0.001], to -0.64 [0.40] in the first postoperative month [p< 0.001], and to -0.62 [0.42] [p< 0.001] on the last follow-up [mean 4.2 months, range 1 - 9 months]. Fourteen control patients had the mean [SD] log Mar best corrected visual acuity improving from -1.78 [0.79] preoperatively, to -0.91 [0.53] in the first postoperative week [p< 0.001], to -0.86 [0.45] in the first postoperative month [p< 0.001], and to -0.90 [0.47] [p< 0.001] on the last follow-up [mean 19.6 months, range 1 - 49 months]. Initial visual acuities, final visual acuities, and percentage of visual improvement at one month were all not significantly better in the intervention compared to the control group at one month. In the study group, the fovea was flattened at the one-month follow-up, by 90-diopter slit lamp examination and / or Optical coherence tomography. The combination of intravitreal bevacizumab and phacoemulsification is beneficial for maximal visual rehabilitation in the first postoperative month.

Cecal Neoplasms

pathology

Carcinoma caecum; metastasis to ileostomy from mucinous adenocarcinoma.
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Sindh Institute of Urology and Transplantation
Keywords: Neoplasm Metastasis; Ileostomy; Adenocarcinoma, Mucinous; Cecal Neoplasms-complications
Abstract: Most of patients with colorectal carcinoma end up with colostomies and ileostomies. Different complications are described pertinent to ileostomies. We are presenting a very rare presentation of ileostomy, the metastasis from mucinous adenocarcinoma of caecum, without ileostomy dysfunction, local bleeding as presenting complaint along with a ileostomy growth.

Central Serous Chorioretinopathy

diagnosis

Value of three-dimensional optical coherence tomography and fundus photochromy in correlating the fluorescein leaking sites of acute central serous chorioretinopathy.
Wang, Guang Hui; Zhang, Jun; Zhang, Dan; Lv, Fu Li; Wang, Le Xin
Taishan Medical University - Liaocheng Clinical School - Department of Ophthalmology
Medical Principles and Practice 2011; 20 (3): 283-286 (8 ref.)
Keywords: Tomography, Optical Coherence-methods; Fluorescein Angiography-methods; Retinal Diseases-diagnosis; Retinal Vessels-pathology; Exudates and Transudates
Abstract: This study was designed to investigate the value of 3-D optical coherence tomography [3-D OCT] combined with fundus photochromy in the diagnosis of acute central serous chorioretinopathy [CSCR]. 3-D OCT and fundus photochromy were performed on 30 patients [36 eyes] with acute CSCR. Fluorescein angiography [FA] was also performed to confirm the diagnosis and to obtain the fluorescein leakage sites. 22 eyes presented neurosensory
retinal detachment determined by 3-D OCT [28 leakage spots], 1 eye showed retinal pigment epithelium [RPE] detachment [2 leakage spots], and 13 eyes showed both neurosensory and RPE detachment [17 leakage spots]. 3-D OCT showed significant changes in the RPE in 36 of 47 leakage spots [76.6%]. Fundus photochromy showed white-gray changes in 22 of the 47 leakage spots [59.6%]. 47 leakage spots were identified by FA in 36 eyes. The combination of 3-D OCT and fundus photochromy identified 42 of the 47 leakage spots [89.4%] spotted by FA. A combination of 3-D OCT and fundus photochromy offered a high identification rate of the leakage spots. The combination of the two noninvasive techniques may be used as an alternative diagnostic or evaluation tool for acute CSCR.

Cephalometry

Anthropometric study of head measurements of children in Assiut city.
Mohamed, Refaat S.; Sayed, Sayed A.; Atia, Gamal A.; Gad El Rab, Wail M.
Assiut University - Faculty of Medicine - Anatomy Department
Assiut Medical Journal 2010; 34 (3): 83-98 (26 ref.)

Keywords: Child; Anthropometry
Abstract: The aim of the present study is to detect any existence of a relationship between the different cranial parameters during growth of children at the selected ages. A total of 300 healthy children aged 6-11 years participated in the study; they were taken from primary schools in Assiut City. Children were divided into 6 age groups; each age group included 50 children [25 boys and 25 girls]. Each child was subjected to the following measurements: head circumference, head length, head width, forehead width, head height and auricular height. Results revealed that all cranial parameters of boys were obviously higher than that of girls at all ages, but girls tend to grow faster than boys. It is also evident that head circumference correlated with head length at ages of 7, 8, 9, 10 and 11 years. It is also correlated with head width at 6, 7, 9 and 10 years of age. In addition to that, the head length and head width were correlated with each other at 7, 9 and 10 years of age. This indicates that the increase in head circumference could be attributed mainly to the increase in both head length and head width. The pattern of head growth of children in Assiut City indicates mesocephalic [intermediate] head type.

Chalcogens

[The effect of trans-chalcone on amylase activity, blood glucose and lipid levels in diabetic and non diabetic rats].
Najafian, M.; Ebrahim Habibi, A.; Yaghmaei, P.; Parivar, K.; Larjani, B.
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Islamic Azad University - Department of Biology
Armaghane - danesh 2011; 16 (1): 51-60 (22 ref.)

Keywords: Amylases; Blood Glucose; Lipids-blood; Diabetes Mellitus, Experimental; Rats
Abstract: Alpha amylase is the most important decomposing enzyme in starch. Digestion and absorption of starch in the intestine can be prevented and also the blood sugar levels can be controlled by restrain and control of alpha amylase. The aim of this study was to evaluate the effect of trans-chalcone on amylase activity, blood glucose and lipid levels in diabetic and non diabetic rats. This experimental study was conducted in 1388 at Tehran University of Medical Sciences. Sixty rats were randomly divided to ten equal groups: non diabetic control, diabetic control, four non diabetic experiments and four diabetic experiments. Control groups received grape seed oil and experimental groups received 2, 8,16 and 32 mg/kg of body weight in a period of 24 days with a gastric cannula. Blood sugar, every two days, serum insulin levels in days 0,12, and 24 and at the end of the experiment, lipoproteins and alpha amylase activity were measured. The data were analyzed by one way analysis of variance, ANOVA, followed by Turkeys test with SPSS soft ware. On average Chalcone reduced 25.6% of blood sugar in normal and diabetic rats. IT also decreased the serum insulin level. On average, chalcone decreased 34.9% of alpha amylase activity in normal and diabetic rats. Following disturbances in lipids metabolism caused by diabetes, this drug improved lipoproteins metabolism and reduced water, food and urine volume. This study shows that trans-Chalcone reduces blood sugar and body weight via inhibition of alpha amylas. Moreover, improvement of lipoprotein metabolism may happen via the inhibitory effect of this drug on hydroxyl methyl glutaryl -COA reductase and phosphodiesterase.

Chlorophyta

Application of algae in biomonitoring and phytoextraction of heavy metals contamination in urban stream water.
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Kampala International University - School of Engineering and Applied Science - Department of the Environment
International Journal of Environmental Science and Technology 2011; 8 (1): 115-128 (26 ref.)
Keywords: Metals, Heavy; Biomass; Urban Population; Water Supply; Water Pollution; Water Pollution, Chemical; Water Pollutants; Water Pollutants, Chemical; Waste Management

Abstract: Biological technologies for wastewater remediation techniques employed to remove contaminants in urban stream water are increasingly receiving attention worldwide. The purpose of this study was therefore to determine the concentrations of lead, cadmium, copper, zinc, manganese and iron in algal biomass and establish the feasibility of using algae in phytoextraction and bio-monitoring of environmental quality. Analysis of algal biomass samples in the Nakivubo urban stream ecosystem, Kampala, Uganda, showed that there was contamination by lead, cadmium, copper and zinc as indicated by enrichment factor and pollution load index values. It is suspected that industrial and vehicular emissions are the major sources of these pollutants. Calculated bio-concentration factor was = 1000 but with low concentration thresholds in each element, suggesting that algal biomass was a very good heavy metal accumulator. The bio-concentration values in algal biomass were found to be in the order of copper > zinc > lead > cadmium in the Nakivubo Channelized stream. In conclusion, algae can be a promising aquatic bio-filter plant for phytoextraction and bio-monitoring of polluted urban stream ecosystems and wastewater.

Cisplatin toxicity

Silymarin administration protects against cisplatin-induced nephrotoxicity in adult male albino rats. [histological and immunohistochemical study].
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Suez Canal University - Faculty of Medicine - Histology and Cell Biology Department

Abstract: Cisplatin is one of the most commonly used chemotherapeutics for cancer treatment, but its use is limited because of its nephrotoxicity. Several evidences suggested that cisplatin-induced nephrotoxicity is partially mediated by reactive oxygen species. The purpose of the present study is to investigate whether silymarin administration as an antioxidant before cisplatin could afford protection against cisplatin-induced nephrotoxicity. This study was performed on 30 adult male albino rats that were divided into 5 groups. Group 1: served as control group. Animals of other groups received a single intraperitoneal [IP] injection of the following treatments: Group II received 0.1ml of normal saline+1% w/v methylcellulose, Group III received silymarin [50 mg/kg BW], Group IV: Received cisplatin [7.5 mg/kg BW] and Group V: Received silymarin 6 h before cisplatin injection. Kidneys were excised 5 days after the end of the experiment biopsies were processed for light microscopic studies. Immunohistochemical expression of Bak protein was investigated. Renal cortex of group IV showed extensive renal tubular necrosis, intratubular casts, desquamated renal tubular cells, cytoplasmic degeneration and mononuclear cellular infiltration. The cells of proximal convoluted tubules [PCT] were severely affected. Also, there was a decrease in the PAS +ve material at brush borders of the PCT and a positive cytoplasmic reaction of Bak protein in renal tubular cells. There were statistical significant differences regarding these changes when compared to the other groups. In group V, the renal cortex of examined animals appeared similar to control group. Silymarin pretreatment prevented the histopathological changes caused by cisplatin. Therefore, silymarin can be used as an effective protecting agent against cisplatin-induced nephrotoxicity.

Cladosporium

Single factorial experimental design for decolorizing anaerobically treated distillery spent wash using Cladosporium cladosporioides.
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International Journal of Environmental Science and Technology 2011; 8 (1): 97-106 (44 ref.)

Abstract: This study presents the standardization of nutrient concentration, pH and temperature required to decolorize the anaerobically treated distillery spent wash using the fungus Cladosporium cladosporioides. Experiments were carried out to measure the decolorization of distillery spent wash effluent and it was found to be effective in acidic environment. From the results it was observed that a maximum color reduction of 52.6% and Chemical Oxygen Demand removal of 62.5% were achieved. The optimum conditions required for the growth of the fungus was found to be 5 g/L of fructose, 3 g/L of peptone, 5 pH and 35° C. It was also observed that during the process a maximum of 1.2 g of fungal growth was attained. Decolorizing ability of the fungus was confirmed using spectrophotometer and High
Performance Liquid Chromatography analysis. Single factorial experimental design was used to optimize the parameters. Apart from decolorization it was observed that fungus also has the ability to degrade the spent wash efficiently. This investigation could be an approach towards control of environmental pollution and health hazards of people in and around the distillery unit.

**Cloprostenol**

**adverse effects**

Histological and immunohistochemical study of the effect of travoprost with and without benzalkonium chloride on the corneae epithelium of adult male albino rat.

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**Egyptian Journal of Histology** [The] 2010; 33 (4): 671-682 (40 ref.)

**Keywords:** Luteolytic Agents; Benzalkonium Compounds-adverse effects; Epithelium, Corneal-pathology; Histology; Immunohistochemistry; Rats; Epithelium, Corneal-ultrastructure; Microscopy, Electron, Scanning

**Abstract:** Chronic topical glaucoma therapy has been reported to cause deleterious changes to the ocular surface layers. Benzalkonium chloride [BAK] is the most commonly used ocular preservative, especially in antiglaucoma drugs. It is largely responsible for the ocular toxicities and inflammation associated with the chronic use of many ophthalmic solutions. This work aimed to compare structural changes in corneae epithelium of rats after chronic exposure to travoprost 0.004% eye drops preserved without BAK, travoprost 0.004% eye drops preserved with BAK and BAK alone. Forty adult male albino rats were divided into five equal groups and created topically once daily for eight weeks; group I [control group], group II received sofzia preservative system, group III received travoprost 0.004% eye drops preserved with sofzia [Travatan Z], group IV received BAK 0.015% and group V received travoprost 0.004% eye drops preserved with 0.015% BAK [Travatan]. At the end of the experiment, cortical specimens were processed for histological study by light and electron microscopes as well as immunohistochemical study with monoclonal antibody to cytokeratin-3 [CK-3]. Corneal epithelium of animals treated with BAK alone and those treated with travoprost preserved with BAK showed desquamation of epithelial cells, significant decrease of epithelial thickness, focal disruption of Bowman's membrane, loss of microvilli, cytoplasmic-vacuolation, nuclear fragmentation and swollen mitochondria with widening of intercellular spaces. Immunohistochemical study revealed significant decrease in the expression of CK-3 in the cytoplasm of epithelial cells. However, no obvious histological changes were recorded in corneal specimens in animals treated with travoprost preserved with sofzia with normal expression of CK-3 in the cytoplasm of epithelial cells. Once-daily dosing of travoprost preserved with BAR produced significant corneal epithelial changes. However, the use of glaucoma medications with alternative preservatives as sofzia can preserve corneal health.

**Cocos**

**chemistry**

In vivo antinociceptive and anti-inflammatory activities of dried and fermented processed virgin coconut oil.


Universiti Putra Malaysia - Faculty of Medicine and Health Sciences - Department of Biomedical Science

**Medical Principles and Practice** 2011; 20 (3): 231-236 (21 ref.)

**Keywords:** Plant Oils-therapeutic use; Anti-Inflammatory Agents, Non-Steroidal-chemistry; Phytotherapy; Edema-prevention and control; Analgesics-isolation and purification

**Abstract:** The present study was carried out to investigate the antinociceptive and anti-inflammatory activities of virgin coconut oil [VCO] produced by the Malaysian Agriculture Research and Development Institute [MARDI] using various in vivo models. Two types of VCOs, produced via standard drying [VCOA] and fermentation [VCOB] processes were used in this study. Both VCOA and VCOB were serially diluted using 1% Tween 80 to concentrations [v/v] of 10, 50 and 100%. Antinociceptive and anti-inflammatory activities of both VCOs were examined using various in vivomodel systems. The antinociceptive activity of the VCOs were compared to those of 1% Tween 80 [used as a negative control], morphine [5 mg/kg] and/or acetylsalicylic acid [100 mg/kg]. Both VCOA and VCOB exhibited significant [p < 0.05] dose-dependent antinociceptive activity in the acetic acid-induced writhing test. Both VCOs also exerted significant [p < 0.05] antinociceptive activity in both phases of the formalin and hot-plate tests. Interestingly, the VCOs exhibited anti-inflammatory activity in an acute [carrageenan-induced paw edema test], but not in a chronic [cotton-pellet-induced granuloma test] model of inflammation. The MARDI-produced VCOs possessed antinociceptive and anti-inflammatory activities. Further studies are needed to confirm these observations.
Complementary Therapies

utilization

Complementary and alternative medicine use among adults with diabetes in Muscat region, Oman.
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Sultan Qaboos University Hospital - Department of Family Medicine and Public Health
SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 62-68 (26 ref.)
Keywords: Diabetes Mellitus-therapy; Health Surveys; Hypoglycemic Agents-therapeutic use
Abstract: The use of complementary and alternative medicine [CAM] for diabetes mellitus is becoming increasingly popular; however, little is known about the prevalence of CAM use in patients with diabetes mellitus in Oman. The objectives of this study were to estimate the prevalence of use of CAM among diabetic patients in Muscat region, Oman, and to determine the types of CAM used as well as to identify the demographic features influencing the use of CAM. The study was performed from May to August 2009 on diabetic patients from 4 health centres in Muscat region. A total of 146 patients were interviewed. Information was obtained on demographics, and the prevalence and pattern of use of CAM. Sixty two [42%] of the participants used CAM for the treatment of diabetes. Thirty [48%] were satisfied about its use and 27 [43%] intend to use it again. The only types of CAM used by participants in this study were herbs [n = 49, 79%], and/or food supplements [n = 7, 11%]. Family and friends [n = 47/62, 76%] and/or traditional healers [n = 19, 31%] were the main source of information on CAM in the treatment of diabetes. There was no significant correlation between demographic characteristics and the use of CAM for diabetes. CAM is used widely for diabetes in Muscat region, Oman. Patients have strong faith in CAM in terms of effectiveness. Doctors should recognize this and be prepared to talk more freely with patients about its use and potential side effects.

Conjunctiva

surgery

A clinicopathologic study of excised conjunctival lesions.
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Memorial Institute of Ophthalmology - Department of Ocular and Pathology
Keywords: Conjunctival Diseases; Conjunctival Neoplasms; Granuloma, Pyogenic; Hemangioma; Nevus; Papilloma
Abstract: This study was aimed at to determine the frequency of excised conjunctival lesions in a patient population treated over a 10-year period. The data of all excised conjunctival lesions with tissue diagnoses from 1998 to 2008 in the pathology department were analyzed. The patient group comprised 192 conjunctival specimens; 106 [55.2%] obtained from male patients and 86 [44.8%] from female patients. The age range was 75 years with a mean age of 27.07 +/- 17 years. The most frequent excised lesions were pyogenic granulomas, which represented 30.7% [59 cases]. Pigmented epithelial tumors were the second most common benign conjunctival lesions [44 cases, 22.9%]. Out of these cases, compound nevus represented 86.4% [38 cases] and junctional nevus represented 6.8% [3 cases]. Primary acquired melanosis and subepithelial nevus were reported in two cases [4.5%] and one case [2.3%), respectively. Cystic lesions represented 12% [23 cases]. These were mostly ductal retention cysts in 16 cases [70%], occupying the fornix in eight cases. Ocular surface squamous neoplasia [OSSN] was detected in 21 cases [10.9%] significantly affecting an older age group as compared to other lesions [mean age 45.9 +/- 16.7]. Other less frequent lesions included papilloma [10 cases, 2.5%], dermolipoma [8 cases, 4.2%], solid dermoid [3 cases, 1.6%], hemangioma [15 cases, 7.8%], and benign reactive lymphoid hyperplasia [four cases, 2.1%]. Benign lesions were the most frequent histologically diagnosed conjunctival lesions. The true malignant lesions were lower than what has been described in many reports. The significant proportion of precancerous OSSN can be attributed to sun exposure and ultraviolet light in Egypt.
Corneal Diseases

therapy

The effects of riboflavin/ultraviolet: a corneal cross-linking on the signs and symptoms of bullous keratopathy.

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Mashhad University of Medical Science - Khatam-al-Anbia Eye Research Center

**Keywords:** Riboflavin-therapeutic use; Cornea-abnormalities; Ultraviolet Rays; Ultraviolet Therapy; Prospective Studies

**Abstract:** To evaluate the effectiveness of corneal cross-linking in improving the signs and symptoms of bullous keratopathy. This prospective non-randomized case series evaluated 20 eyes with bullous keratopathy that underwent corneal cross-linking [C3R] with riboflavin and ultraviolet-A [UVA, 370 nm, 3 mW/cm²]. C3R was performed for 30 min in a routine procedure after removal of epithelium. Central corneal thickness [CCT], corneal haze, visual acuity [VA], and the presence of irritating symptoms were recorded before the procedure, and at 1 week, 1 month, 3 months, and 6 months after the procedure. The mean CCT was 872 +/- 162 micro m [range: 665-1180 micro m] before the procedure. Following the procedure, CCT was 855 +/- 175 micro m after 1 week, 839 +/- 210 micro m after 1 month, 866 +/- 185 micro m after 3 months, and 863 +/- 177 micro m after 6 months [P>0.05, all visits]. There was no significant improvement in VA or corneal clarity after 6 months. Improvement of the following symptoms: burning, pain, and foreign body sensation were reported after 6 months by 83.3%, 75.0%, and 66.7% of patients, respectively. Persistent epithelial defect occurred in five patients [25%] resolved with frequent lubrication and bandage contact lenses. The outcomes of this study indicate corneal cross-linking is not an effective treatment for bullous keratopathy with respect to VA and CCT, although it can improve irritation and discomfort.

Corneal Dystrophies, Hereditary

Schneider corneal dystrophy in a Saudi Arabian family with heterozygous UBIAD1 mutation [p.L121F].

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King Khaled Eye Specialist Hospital

**Keywords:** Mutation; Cholesterol

**Abstract:** Schneider corneal dystrophy is a rare dominant disorder mostly reported in Western and occasionally Asian populations. This report documents the condition in an affected family from the historically isolated Arabian Peninsula. A child and her mother had central crystalline keratopathy consistent with Schneider corneal dystrophy. Diagnostic UBIAD1 testing revealed a known point mutation [c.361C>T, p.L121F] in both individuals. Available asymptomatic family members had normal ophthalmic examinations and did not have the mutation. Blood lipid profiles for the two patients revealed mildly elevated total cholesterol and low-density lipoproteins. This report documents Schneider corneal dystrophy on the Arabian Peninsula and further confirms its relationship with heterozygous UBIAD1 missense mutation.

Cryopreservation

Effect of cryopreservation on human sperm motility, vitality and DNA integrity in fresh and processed sperms.

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Assiut University - Faculty of Medicine - Department of Dermatology

**Keywords:** Preservation, Biological; Semen; Spermatozoa; Humans; Sperm Motility; DNA

**Abstract:** To investigate The effects of cryopreservation on sperm motility, vitality and DNA integrity in fresh and processed sperms. Pre-cryopreservation and post-cryopreservation analysis of sperm vitality, motility and DNA integrity in fresh and processed semen. Department of Dermatology, Venereology and Andrology, in coordination with the Department of Clinical Pathology Assiut University Hospital. Patients: 50 fertile men [within the last year] who are clinically free and with normal semen parameters the, semen samples collected by masturbation into sterile containers after at least 3 days of sexual abstinence. Semen evaluation for, conventional semen analysis, sperm vitality with Hypo-Osmotic Swelling test [HOS], sperm DNA integrity by flow cytometry. Each sample was divided into 2 halves: The first half was cryopreserved without processing. The second half of the sample was processed by swim up technique. HOS test, percentage of progressive motility and DNA integrity after processing. Cryopreservation in liquid nitrogen for at least 24 hours for all samples [fresh and processed,] was done. HOS test, percentage of progressive motility and DNA integrity after thawing for all samples [fresh and processed]. Sperm DNA fragmentation index was determined...
using flowcytometry, sperm vitality was determined using HOS test and percentage of progressive sperm motility was determined using light microscopic examination according to criteria of WHO [1999]. Sperm frozen after processing had higher resistance to freezing damage as regards vitality and motility when compared with sperm frozen without processing however, sperm DNA fragmentation index was more in frozen processed than unprocessed sperms. Cryopreservation results in decreased sperm vitality, motility and increased sperm DNA fragmentation. Freezing processed sperm give better post-thawing vitality and motility but, increased sperm DNA fragmentation when compared with unprocessed sperm.

**Cryptorchidism**

**complications**

*Causes of delay in proper treatment of patients with undescended testis.*

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Shahid Sadoughi Hospital - Department of Surgery

**Keywords:** Cryptorchidism-diagnosis; Cryptorchidism-surgery; Orchiopexy; Cross-Sectional Studies; Delayed Diagnosis; Awareness

**Abstract:** Undescended testis [UDT] is the most common endocrine disorder in male children. Delayed diagnosis and treatment of UDT lead to complications such as infertility, malignancy and testis rotation. The aim of this study was to evaluate the causes of delay in proper treatment of patients with undescended testis in our population. An observational, descriptive, cross sectional study of 143 male patients, who applied to Shahid Sadoughi University Hospitals for orchiopexy operation was performed. The maximum recommended age for orchiopexy was 18 months. The mean age at referral was 5.34 years. Only 44 [30.8%] cases were operated on before the age of 18 months. The most common reasons of delay in treatment were absence of early diagnose [42.5%], parent's unawareness of surgery necessity and its complications associated [33.7%] and parent's disregard [23.5%]. Only 19.6% of patients were diagnosed at born in the hospital. 49% of parents had the correct information for proper operation age and 40.6% of them had enough information about necessity of surgery and side effects of disease. Parent's literacy, place of living and type of cryptorchidism had no significant relation with delay diagnosis [p> 0.05]. These results revealed that late diagnosis by physician and lack of insight of parents are the main reasons in delayed diagnosis and treatment of UDT. Therefore, education of parents and careful physical examination of the babies at birth and regular follow-up until 18 months can prevent the delay in diagnosis.

**Cystitis, Interstitial**

**ultrastructure**

*Protective role of quercetin [phytochemical] against water avoidance stress induced interstitial cystitis of adult female albino rats light and electron microscopic study.*

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**Keywords:** Microscopy, Electron, Scanning; Protective Agents; Quercetin-therapeutic use; Treatment Outcome; Rats

**Abstract:** Interstitial cystitis [IC] is a chronic inflammatory condition of the urinary bladder, its cause is unknown. It is believed not to be caused by bacteria and does not respond to antibiotic therapy, it has been proved to be caused by stress. It affect people of any race, age and sex, more women than men suffer from this condition. Oral therapy utilizing quercetin [naturally occurring compound widely distributed in the plant kingdom specially in apple, onion, tea and berries] recently proved to be clinically effective in relieving the symptoms of this disease. This research aimed to study the protective effect of quercetin on the urinary bladder mucosa of the experimentally induced IC in rats by exposing them to water avoidance stress [WAS] which has been shown to induce IC. 32 adult female albino rats were divided into four groups [8 animals each] . Animals of group I were exposed to WAS 2 h daily for 5 days. In group II, 50 mg/kg quercetin was given orally to the animals before exposing them to WAS. Animals of group III were given the same dose of quercetin without exposing them to WAS. Animals of group IV were served as control animals. At the end of the experiment, urinary bladder samples were taken and prepared to be examined by light, transmission and scanning electron microscopes. In group I, urothelium showed ulcerated areas, vacuoles formation, degenerated mitochondria.
and dilatation in the intercellular spaces were observed. Lamina propria showed dilated blood vessels and interstitial mononuclear inflammatory cell, increased number of mast cells in the mucosa was also observed. In group II, relatively normal urothelial topography, regular tight junctions and a few number of mast cells in the mucosa was observed. The results of the present study demonstrated that, quercetin has protective effects on IC which induced by stress, as the morphology changes which induced in bladder mucosa were all improved by quercetin utilization.

**Cysts**

**Splenic epithelial cyst.**
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Jinnah Postgraduate Medical Centre - Department of Surgery
JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 245-246 (10 ref.)
**Keywords:** Splenic Diseases-surgery; Splenectomy; Splenic Diseases-pathology; Spleen-pathology; Epidermal Cyst
**Abstract:** Cysts of spleen are rare entities. Congenital splenic cysts are even more uncommon comprising of only 10% of benign non-parasitic cysts. We report a case of 22 years old female who presented with history of 2 years abdominal pain and gradual distension. Ultrasound and computed tomography [CT] both were suggestive of splenic cyst. Laboratory tests show thrombocytopenia with platelets count of 97000 per cubic millimeter and anemia with hemoglobin 8.7 gram per deciliter. Serological tests were negative for parasitic infection. Splenectomy was done and the weight of the spleen was found to be 1.5 kilogram. Histopathological findings were consistent with splenic epithelial cyst. The aetiology, diagnostic modalities and treatment options are discussed in the case report.

**Dacryocystorhinostomy**

**Combined posterior flap and anterior suspended flap external dacryocystorhinostomy.**
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University College of Medical Sciences - Department of Ophthalmology
**Keywords:** Surgical Flaps; Treatment Outcome

**Dandy-Walker Syndrome**

**ultrasonography**

**Goldston syndrome.**
Hussain, Zainab; Masroor, Imrana; Haider, Qurrat ul Ain; Alam, Tariq
The Aga Khan University Hospital - Department of Radiology
JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 242-244 (8 ref.)
**Keywords:** Pancreatic Cyst; Abnormalities, Multiple; Pregnancy Outcome; Ultrasonography, Prenatal
**Abstract:** Goldston syndrome is a rare entity describing the association of polycystic kidneys and Dandy Walker malformation with or without hepatic fibrosis. A 28 years old pregnant woman came to radiology department for the first antenatal scan. Ultrasound showed a single fetus corresponding to 27 week of gestation. The fetal brain revealed deficient vermis with a posterior fossa cyst communicating with the 4th ventricle suggestive of Dandy-Walker malformation [DWM]. The kidneys were enlarged, and echogenic containing small cysts with associated amniotic fluid index of 5 cm suggestive of Oligohydramnios. A diagnosis of Goldston syndrome was suggested. These findings were confirmed on post natal head and renal ultrasound.
Dengue

Dengue fever; clinico-pathologic correlations and their association with poor outcome.
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Independent Medical College - Pathology Department
Keywords: Dengue-pathology; Dengue-complications; Prospective Studies; Alanine Transaminase-diagnostic use; Blood Urea Nitrogen; Prognosis
Abstract: One of the major health hazards that has erupted in Pakistan within the recent past years and has caused loss of life of many young people is Dengue Fever. Main objective was to find clinico-pathologic parameters which are essentially associated with complications and contribute to the adverse outcome. This prospective study was conducted on 106 seropositive cases of dengue fever. Patients were taken from Abbasi Shaheed Hospital, Karachi from June 2008 to March 2009. The most common 3 hematological abnormalities were thrombocytopenia and leucopenia. Platelets count below 50 x 10^9 /microL was seen in [78%] cases and 49% 3 patients had total white cell count below 4 x10^9 /microL. Partial thromboplastin time was significantly prolonged in [26%] cases whereas prothrombin time was normal in all patients. Liver enzymes both Aspartate Aminotransferase [AST] and Alanine Amino-transferase were significantly elevated in [60%] patients. Blood urea nitrogen [BUN] and creatinine was deranged in [23%] patients. Fever was the most common clinical presentation [86% of the patients]. Hematological parameters [low platelet count, low total leucocytes count, prolonged APTT and raised hematocrit] and biochemical parameters [raised aminotransferases, blood urea nitrogen] have strong association with the complications of dengue fever and hence are associated with the poor outcome of disease.

Dental Anxiety

epidemiology

Over dental anxiety problems among university students: perspective from Pakistan.
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JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 237-238 (7 ref.)
Keywords: Anxiety-epidemiology; Students-psychology; Dental Care-psychology; Questionnaires; Universities; Oral Health; Quality of Life; Manifest Anxiety Scale; Health Behavior; Educational Status
Abstract: Oral health seeking behavior is compromised by dental anxiety, and affects quality of life. This preliminary study using convenience sampling was conducted among university students in the cities of Islamabad, Rawalpindi, and Multan, Pakistan, using standardized, valid and reliable scales to determine the prevalence and correlates of dental anxiety. Cumulatively 503 students including 278 males and 225 females completed the questionnaire. High to severe anxiety on Dental Anxiety Scale-Revised was reported by 60 [21.6%] males and 54 [24%] females. Seventy-five [27%] males and 62 [27.6%] females reported being quite afraid to very afraid on Dental Anxiety Question. Results underline the need for population-based representative studies to determine the prevalence and correlates of dental anxiety for better dental health in Pakistan.

Dental Fistula

diagnosis

Odontogenic cutaneous fistula: Report of two cases.
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Sultan Qaboos University Hospital - Departments of Family Medicine and Public Health
SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 115-118 (9 ref.)
Keywords: Cutaneous Fistula-pathology; Periapical Abscess; Diagnosis, Differential; Skin Diseases
Abstract: Odontogenic cutaneous fistula or sinus is an uncommon, but well documented condition, which is often initially misdiagnosed as a sole cutaneous lesion and inappropriately treated. The misdiagnosis as a skin infection often results in inappropriate management. We here present two cases of odontogenic cutaneous fistula that were seen after being treated unnecessarily with antibiotics.
Dentate Gyrus

pathology

Dentate gyrus in aged male albino rats [histological and tau-immunohistochemical study].
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Zagazig University - Faculty of Medicine - Department of Histology and Cell Biology

Keywords: Aging; Rats; Immunohistochemistry

Abstract: Dentate gyrus is a subregion of the hippocampus that is crucial in learning and memory and it is vulnerable to the aging process. Tau is a microtubule associated protein in neurons which is implicated as a significant factor in the axonal growth and development of neuronal polarity. The present study aimed to investigate the histological and tau-immunohistochemical features of the dentate gyrus in aged male albino rats. Thirty male albino rats were divided equally into three groups: Group 1 [adult, 3-6 months], Group II [early senile, 18-20 months] and Group III [late senile, 30-31 months]. Paraffin sections of hippocampus were prepared and stained with H and E, Cresyl violet and immunohistochemically using anti-tau antibodies. Morphometric measurements were done and statistically analyzed. The thickness of the granule cell layer of dentate gyrus showed significant reduction in group III as compared to group I and II. The granule cell layer of dentate gyrus of aged rats [Group II, III] showed significant reduction in the number of mature granule cells with detection of apoptotic cells. The number of immature cells showed significant increase in group II, while was significantly reduced in group III as compared with group I. The cells of the hilus appeared with disturbed arrangement and some appear with shortening of their processes with presence of apoptotic cells and microglia. The number of astrocytes showed significant age dependent increase. Significant increase in the optical density of the tau immunoreaction within the dentate gyrus neuropil was observed with aged. Aging was associated with dentate gyrus neuronal loss which is accompanied with increase in abnormal tau accumulation in neuronal processes. Also, early stages of aging were accompanied with increase in immature cells. So, it is recommended to investigate the use of anti-tau drugs and stimulation of dentate gyrus neurogenesis by neurotrophic drugs as a protective approach for improvement of learning and memory during aging.

Developmental Disabilities

diagnosis

Frank-Ter Haar Syndrome.
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The Children Hospital - Department of Paediatric Neurologist
JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 252-253 (10 ref.)

Keywords: Heart Defects, Congenital; Osteochondrodysplasias-congenital; Craniofacial Abnormalities; Craniofacial Abnormalities-surgery; Ductus Arteriosus, Patent; Glaucoma, Angle-Closure-surgery

Abstract: Frank-Ter Haar Syndrome [FTHS] is a rare hereditary inherited disorder with many abnormalities. The main clinical features are brachycephaly, wide fontanels, prominent forehead, hypertelorism, prominent eyes, macrocornea with or without glaucoma, full cheeks, small chin, congenital heart defects, kyphoscoliosis, skeletal dysplasia, developmental delay, coccygeal skin folds and flexion deformity of the fingers. This case report describes Frank-Ter Haar syndrome in a 4 months old girl suffering from club foot, dysmorphism, prominent coccyx with skin fold, atrial septal defect, patent ductus arteriosus and megalocornea.

Diabetes Mellitus, Experimental

Histological study on the effect of aminoguanidine on the cornea of rat of streptozotocin induced diabetes.
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Ain Shams University - Faculty of Medicine - Histology Department

Keywords: Guanidines-adverse effects; Cornea-ultrastructure; Microscopy, Electron; Rats

Abstract: Diabetes mellitus is increasing worldwide at an alarming rate. Patient morbidity related to diabetic induced ocular complications has increased year on year proportionate with the worldwide increase in the incidence of diabetes. Diabetic keratopathy is a common ocular complication of diabetes. The present study tried to investigate the
effects of experimentally induced diabetes by Streptozotocin [STZ] on the structure of cornea and the role of aminoguanidinc administration to ameliorate these effects. Twenty adult male albino rats were divided into four groups; five animals each; Group I [control group], Group II [diabetic], Group III [diabetic and aminoguanidine], Group IV [non diabetic and aminoguanidine]. At the end of experiment, the rats were sacrificed and the corneas of different groups were processed for light and electron microscopic examination. Immunohistochemical study was done using caspase-3 to detect the apoptotic changes. The thickness of corneal layers was measured by image analyzer and statistical analysis was done. Light microscopic examination of group II revealed marked histological alteration in the form of degenerative changes. Immunohistochemical reaction showed increased number of apoptotic cells in most layers of the cornea. Statistical analysis of group II revealed a significant increase in thickness of all corneal layers as compared to all groups. Electron microscopic examination revealed irregularity of the basement membrane of corneal epithelium. The stroma showed focal loss of collagen fibrils. The endothelial coils were enlarged and distorted. Group III showed a more or less restoration of normal histological and morphometric structures of the cornea. Group IV was comparable to control group. Diabetes caused structural alterations in the cornea. However, Aminoguanidine improved structural changes caused by diabetes.

Diabetic Ketoacidosis

etiology

Diabetic ketoacidosis; the precipitating entities in patients with type 2 diabetes mellitus.
Husain, Syed Shajee; Ali, Sara Ahmad; Javed, Muhammad Rizwan
Liaquat National Medical College - Department of Community Medicine
Keywords: Diabetes Mellitus, Type 2-complications; Prospective Studies; Precipitating Factors; Comorbidity; Patient Compliance
Abstract: To determine the frequency of various precipitating factors for Diabetic Ketoacidosis [DKA] in patients with type 2 diabetes mellitus. Study Design, This was a prospective study carried out at Department of Medicine, Muhammad Medical College and Hospital Mirpurkhas, from February 2007 to February 2009. 100 patients with type 2 diabetes mellitus admitted with diabetic ketoacidosis [DKA] were analyzed to determine the precipitating factors. Out of 100 patients 47 were males and their average age was 47 years [range=17-65] while 53 were females with an average age of 43 [range=14-58], among them 54 had various systemic infections, 18 were non-compliant to the treatments, 24 had other co-morbidities like chronic liver disease [n=8], stroke [n=7], chronic renal failure [n=5], sub-endocardial infarct [n=2] and acute pancreatitis [n=2] as precipitating factors while 4 had their first presentation of diabetes mellitus as diabetic ketoacidosis. A mortality of 14% was recorded in the study. Systemic infections, non-compliance to treatments and co-morbid conditions were the major precipitating factors for diabetic ketoacidosis.

Diagnostic Imaging

adverse effects

Radiation exposure from medical imaging. a wake-up call for Oman!
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Sultan Qaboos University - College of Medicine and Health Sciences
SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 1-4 (14 ref.)
Keywords: Radiation Dosage; Neoplasms, Radiation-Induced; Risk Factors; Radiation Injuries

Diskectomy

Outcome of anterior cervical discectomy with cage in cervical disc degeneration.
Omar, Ahmad M.M.; Mahmoud, Radwan N.; Ahmad, Mohamad T.; Abokresha, Ahmad A.; Mahmoud, Mohamad A.
Assiut University - Faculty of Medicine - Department of Neurosurgery
Assiut Medical Journal 2010; 34 (3): 51-58 (12 ref.)
Keywords: Polyethylene Glycols-therapeutic use; Biocompatible Materials
Abstract: This study evaluates the efficiency and outcome of interbody polyetheretherketone [PEEK] cage implantation in 50 consecutive cases treated, for cervical disc degeneration. This work was conducted in Assiut University Hospital, Neurosurgery Department over 3 ears duration from 2006 to 2009. Fifty patients with cervical disc disease, were treated with cervical discectomy and Cervical interbody fusion using a PEEK cage. PEEK cages were packed with demineralised bone grafts or synthetic bone grafts. Additional plating was not used in any case. The
median duration of follow-up was 12 Months [range, 6-36 months]. Cervical x-rays were routinely used in the follow-up to assess the fusion pseudoarthrosis, kyphosis, cage migration, subsidence or breakage. There were 39 male and 11 female patients and the mean age 45 years [range, 30-60 years]. No implant insufficiency or significant complications was observed in any case. The use of a cervical PEEK cage seems to be a good way that does not require additional anterior plating and bone graft harvesting/or achieving cervical interbody replacement. Anterior cervical disectomy and interbody fusion is an effective treatment for radicular pain in selected patients with cervical disc disease after six months follow up. Because of similar clinical outcomes and lack of donor site morbidity when using PEEK, we now prefer fusion with PEEK cage to autologous iliac crest graft.

DNA, Mitochondrial genetics

A link between mitochondrial DNA haplogroup and ischemia.
Hasnain, Seyed E.
Institute of Life Sciences - Hyderabad University Campus - Hyderabad, and Jawaharlal Nehru Centre for Advanced Scientific Research
Medical Principles and Practice 2011; 20 (3): 201-202 (9 ref.)
Keywords: Ischemia-genetics; Haploidy; Genetic Markers; Haplotypes

Dogs

parasitology

[Fauna of zoonotic parasites of stray dogs in Yasouj suburbs in 2008].
E-mail:amoshflea@yahoo.com
Yasouj University of Medical Sciences - Faculty of Medicine - Department of Parasitology
Armaghane - danesh 2011; 16 (1): 80-89 (30 ref.)
Keywords: Zoonoses; Echinococciosis-transmission
Abstract: Dogs are among the closest animals to human residents and can by useful for human. A few of zoonotic diseases are prevalent in Iran. Dogs are the reservoirs of many of these zoonosis and a major role in transmission of infection. The aim of this study was to determine the zoonotic parasitic fauna of stray dogs in Yasuj. In this descriptive study which was conducted at Yasuj suburbs in 2008, 25 dogs' corpses were necropsied and their tissues were studied for parasitic infections. Collected parasites were placed in special containers and stained for genus and species diagnosis based on their morphological features. The collected data were analyzed with the SPSS software, using descriptive analysis. Of the 25 studied corpses, 23 dogs were infected with at least one parasite. Helminthic infections of dogs were consisted of: Taenia hydatigena, Mesocestoides sp., Echinococcus granulosus, Dipylidium caninum, Macracanthorhynchus hirudinaceus and Spirocerca lupi. Four of six detected helminthes in in dogs in this study are zoonotic parasites which are important in human diseases. Among them larval stage of Echinococcus granulosus which causes hydatid cyst disease in human is very important. Control programs should be implemented in this region to prevent these zoonotic diseases.

Echinacea

[Effect of echinacea purpurea on control of leishmania major induced cutaneous leishmaniasis in mice].
Sadati, M.S.; Sarkari, B.; Asgari, Q.; Hatami, S.; Tavakl, E.
Shiraz University of Medical Sciences - Faculty of Medicine - Department of Dermatology
Armaghane - danesh 2011; 16 (1): 31-40 (24 ref.)
Keywords: Plant Extracts; Leishmaniasis, Cutaneous-therapy; Mice; Treatment Outcome
Abstract: Leishmaniasis is a disease caused by intracellular protozoa parasites of the genus Leishmania and is endemic in some areas of Iran. Echinacea purpurea is a native plant from North America which is one of the most important medical herbs known with immuno-stimulant properties. This study was performed to determine the effect of alcoholic extract of Echinacea purpurea on prophylaxis and treatment of Leishmania cutaneous lesions. In this experimental study which was conducted at Shiraz University of Medical Sciences in 2009, eighteen mice were divided into 3 groups. Group one received Echinacea purpurea extract [200 mg/ml] in their water, for 2 weeks before parasite injection, while group two were first injected with parasite amastigotes, followed by administration of Echinacea
purpurea extract for 2 weeks. Group three was the control group, which received parasites, but not the extract. The size of Leishmania lesions in the tail base, right and left foot were measured with vernier caliper. The lesion areas were calculated and the collected data were analyzed with SPSS software. The mean of lesion size in each group of mice were compared and analyzed. No significant differences in the lesions size were found between the three mice groups. Therefore, Echinacea purpurea extract was not effective against Leishmania major based on the findings of this study. Our findings suggest that Echinacea extract is not effective in treatment or prophylaxis of leishmaniasis in mice. Yet, further studies are needed to determine the effects of other extracts of this plant.

Ectropion

diagnosis

**Congenital bilateral ectropion in lamellar ichthyosis.**
Chakraborti, Chandana; Tripathi, Partha; Bandopadhay, Gautam; Mazumder, Dayal
E-mail: cchakoptha@yahoo.com
Department of Ophthalmology
**Keywords:** Ectropion-drug therapy; Ichthyosis; Treatment Outcome

Electrocoagulation

**Electrocautery, bronchoscopic biopsy and hemorrhage.**
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North Bristol Lung Centre
Annals of Thoracic Medicine 2011; 6 (1): 48-49 (5 ref.)
**Keywords:** Bronchoscopy; Hemothysis; Biopsy

Survey efficiency of electrocoagulation on nitrate removal from aqueous solution.
Malakootian, M.; Yousefi, N.; Fatehizadeh, A.
E-mail: m.malakootian@yahoo.com
Kerman University of Medical Sciences - School of Public Health - Department of Environmental Health
International Journal of Environmental Science and Technology 2011; 8 (1): 107-114 (46 ref.)
**Keywords:** Water Supply; Nitrates; Water Pollution; Water Pollution, Chemical; Water Pollutants; Water Pollutants, Chemical
**Abstract:** Water supply for consumption is one of the crucial objectives of water supply systems. Using of excessive fertilizer is a main source of nitrate content in water. The high amounts of nitrate in water have a determinable effect on the environment which must be removed due to drinking and industrial water standards. The purpose of this study is nitrate removal from aqueous solution by Electrocoagulation process. The applied pilot was comprised of a reservoir, electrode and power supply. In this study pH, electrical potential difference, nitrate initial concentration, total dissolved solid, kind of electrode, electrode connection methods and number of electrode were studied. Moreover, obtained optimum conditions were tested on Kerman water. The results showed that the electrocoagulation process can reach nitrate to less than standard limit. pH, electrical potential difference, total dissolved solids and number of electrodes have direct effect and initial concentration of nitrate has reverse effect on nitrate removal. This study also showed that under optimum condition, nitrate removal from Kerman water distribution system was 89.7%. According to the results, Electrocoagulation process is suggested as an effective technique in nitrate removal.

Embryo Transfer

ethics

**Gamete and embryo donation and surrogacy in Australia: the social context and regulatory framework.**
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University of Melbourne - Melbourne School of Population Health
IJFS - International Journal of Fertility and Sterility 2011; 4 (4): 176-183 (47 ref.)
Keywords: Gamete Intrafallopian Transfers—ethics; Reproductive Techniques, Assisted—ethics; Reproductive Techniques, Assisted—legislation and jurisprudence; Surrogate Mothers—legislation and jurisprudence

Abstract: The social and legal acceptability of third-party reproduction varies around the world. In Australia, gamete and embryo donation and surrogacy are permitted within the regulatory framework set out by federal and state governments. The aim of this paper is to describe the social context and regulatory framework for third-party reproduction in Australia. This is a review of current laws and regulations related to third-party reproduction in Australia. Although subtle between-state differences exist, third-party reproduction is by and large a socially acceptable and legally permissible way to form a family throughout Australia. The overarching principles that govern the practice of third-party reproduction are altruism; the right of donor-conceived people to be informed of their biological origins; and the provision of comprehensive counselling about the social, psychological, physical, ethical, financial and legal implications of third-party reproduction to those considering donating or receiving gametes or embryos and entering surrogacy arrangements. These principles ensure that donors are not motivated by financial gain, donor offspring can identify and meet with the person or persons who donated gametes or embryos, and prospective donors and recipients are aware of and have carefully considered the potential consequences of third-party reproduction. Australian state laws and federal guidelines prohibit commercial and anonymous third-party reproduction; mandate counselling of all parties involved in gamete and embryo donation and surrogacy arrangements; and require clinics to keep records with identifying and nonidentifying information about the donor/s to allow donor-conceived offspring to trace their biological origins.

Endometrium

anatomy and histology

The correlation of factors affecting the endometrial thickness with pregnancy outcome in the IUI cycles.

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Keywords: Pregnancy Outcome; Insemination, Artificial; Retrospective Studies; Ovarian Follicle; Age Factors

Abstract: Many studies have been carried out to understand the effect of endometrial thickness on the reproductive outcome while the factors affecting the pattern itself are still unknown. To determine the factors such as age and the number of follicles that could affect the endometrial thickness. This study was conducted as a retrospective study on 680 infertile women considered for intrauterine insemination [IUI]. IUI protocol was sequential regimen of clomid and gonadotropin. Endometrial thickness measurement was done on the day of HCG administration. Correlation between endometrial thickness and factors such as age, total follicle numbers, dominant follicle numbers, gonadotropin ampule numbers and pregnancy rate were assessed. The mean endometrial thickness was 7.2 +/- 1.8 mm. The endometrium was thinner in older patients compared with younger ones. But in all age ranges pregnancy rate was higher in endometrial thickness 6< ET</=10 mm [p<0.05]. We did not find any correlation between age, number of follicles and gonadotropine ampoules with endometrial thickness but in all age ranges, there is a possibility of higher chance of pregnancy in endometrial thickness 6 < ET</=10 mm.

Enterococcus faecalis

genetics

Frequency of virulence-associated genes in Enterococcus faecalis isolated in Kuwait hospitals.

Udo, Edet E.; Al Sweih, Noura
Kuwait University - Faculty of Medicine - Department of Microbiology
Medical Principles and Practice 2011; 20 (3): 259-264 (26 ref.)

Keywords: Virulence; Gene Expression; Enterococcus faecalis—pathogenicity; Gene Expression Profiling; Genes, Bacterial; Cross Infection-microbiology; Polymerase Chain Reaction

Abstract: The objective of this study was to investigate the carriage of 6 virulence-associated genes in Enterococcus faecalis isolates obtained from patients in 8 hospitals in Kuwait. In total, 466 E. faecalis isolates were obtained from 313 urine samples, 68 wound swabs, 36 blood samples, 25 rectal swabs, 12 high vaginal swabs and 12 miscellaneous sources. Genes for gelatinase[gelE], aggregation substance [aggA], hemolysin activation factor [clyA], enhanced expression of pheromone [eep], enterococcal surface protein [esp], and E. faecalis endocarditis antigen A [efaA] were detected in PCR assays. Of 466 isolates, 423 [90.8%] were positive for 1 and up to 5 genes. However, none of the genes was detected in all of the isolates. The prevalence of the individual genes was esp: 31.9%; esp: 31.5%; gelE: 28.5%; efaA: 27.9%; aggA: 23.4%, and clyA: 18.5%. Of the 423 positive isolates, 148 [34.9%] were positive for 2 genes and 52 [12.3%], 15 [3.5%] and 5 [0.9%] isolates were positive for 3, 4 and 5 virulence genes, respectively.
The efaA and esp combination was detected in isolates from all clinical sources. The study showed a high prevalence of virulence genes in E. faecalis isolated in Kuwait hospitals. The absence of a dominant gene in all of the isolates suggests that infections by E. faecalis may require the involvement of multiple virulence factors.

Environment

Attitudes and behaviors of undergraduate students toward environmental issues.
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Duzce University - Faculty of Forestry - Department of Landscape Architecture
International Journal of Environmental Science and Technology 2011; 8 (1): 159-168 (42 ref.)

Keywords: Attitude; Behavior; Students

Abstract: The studies carried out throughout the world have indicated that there are differences between environmental attitudes and environmentally responsible behaviors of undergraduate students. In what ways the environmental attitudes and behaviors of the students who will protect and manage the resources of the country in the future have changed is an important issue? This study was aimed at determining the environmental attitudes and environmentally responsible behaviors of the undergraduate students of Abant Yzzet Baysal University toward environmental issues. In addition, the effects of the faculty in which the students are enrolled, locality and gender on the determined environmental attitudes and environmentally responsible behaviors of the students were investigated. The data were gathered from 507 students in 2005. To explain the environmental attitudes and environmentally responsible behaviors of undergraduate students toward environmental issues, factor analysis was used with Varimax Rotation method. To determine the changes of the environmental attitudes and environmentally responsible behaviors of the students with regard to the faculty, locality and gender, one-way analysis of variance was used. According to the results, students highly support the environmental attitudes and highly participate only in consumerism behaviors. Finally, it was determined if faculty and gender had an effect on the environmental attitudes and behaviors of the students.

Environmental Pollution

Effects of plants development and pollutant loading on performance of vertical subsurface flow constructed wetlands.
Cheng, B.; Hu, C.W.; Zhao, Y.J.
Huainan Normal University - School of Life Science
International Journal of Environmental Science and Technology 2011; 8 (1): 177-186 (40 ref.)

Keywords: Water Pollution; Plants; Acorus; Seasons; Wetlands

Abstract: The influent concentration has a great effect on nutrients removal efficiency in vertical subsurface flow constructed wetland systems, but treatment performance response to different C: N: P ratios in the influent are unclear at present. At the first growing seasons, the effects of the plants present or not, season, the different C: N: P ratio in influent condition and their interaction on treatment performances were studied in the planted or the unplanted wetlands in greenhouse condition. Each set of units was operated at hydraulic loading rates of 40 L/d. Low, medium and high-strength [100, 200, 400 mg/L of chemical oxygen demand or 20, 40, 80 mg/L total nitrogen] synthetic sewage were applied as influent. According to the first growing season results, the average removal efficiencies for the unplanted and the planted wetlands were as follows: chemical oxygen demand [44-58% and 55-61% respectively], total nitrogen [26-49% and 31-54%] and total phosphorus [36-64% and 70-83%]. The both wetlands system was operated as an efficient treatment system of highest average removal rates of both chemical oxygen demand and total phosphorus when medium-strength synthetic sewage were applied. When high strength synthetic sewage was applied, the planted wetlands usually had a higher nutrients removal rates than the unplanted over the study period. The plants grew well under any high loading treatment over the study period. Anyhow, it also proved that the wetland systems have a good capacity to treat different strength wastewater in greenhouse condition.

Environmental Remediation

Comparison of biostimulation and bioaugmentation for remediation of soil contaminated with spent motor oil.
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Abubakar Tafawa Balewa University - Department of Chemical Engineering Programme

Keywords: Environmental Pollution; Soil Pollutants; Microbial Consortia; Fertilizers; Bacterial Load; Fuel Oils
Abstract: Aerobic fixed bed bioreactors were used to study and compare biostimulation and bioaugmentation for remediation of soil contaminated with spent motor oil. Bioaugmentation using consortium of bacteria and biostimulation using inorganic fertilizer and potassium dihydrogen orthophosphate were investigated. The bioremediation indicators used were the oil and grease content removals, total heterotrophic bacteria counts and carbon dioxide respiration rates. Results showed that biodegradations were very effective with 50, 66 and 75% oil and grease content removal efficiencies for control, bioaugmentation and biostimulation respectively after ten weeks. Carbon dioxide respiration followed similar pattern as the oil and grease content removals. Biostimulation option has the highest carbon dioxide generation [6 249 mg/kg] and the control with the least [4 276 mg/kg]. Therefore, the biostimulation option can be used to develop a realistic treatment technology for soils contaminated with spent motor oil.

Exfoliation Syndrome

Genetics

Genetics and genomics of pseudoexfoliation syndrome/glaucoma.
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University of Erlangen-Nurnberg - Department of Ophthalmology
Keywords: Glaucoma-genetics; Clusterin; Apolipoproteins E; Glutathione Transferase; Tumor Necrosis Factor-alpha
Abstract: Pseudoexfoliation [PEX] syndrome, one of the most common causes of glaucoma, represents a complex, multifactorial, late-onset disease of worldwide significance. The etiopathogenesis involves both genetic and non-genetic factors. The PEX-specific tissue alterations are caused by a generalized fibrotic matrix process, which has been characterized as a stress-induced elastosis associated with the excessive production and abnormal cross-linking of elastic microfibrils into fibrillar PEX aggregates. The identification of lysyl oxidase-like 1 [LOXL1] as a major genetic risk factor for PEX syndrome and PEX glaucoma further supports a role of elastogenesis and elastosis in the pathophysiology of PEX, as LOXL1 is a pivotal cross-linking enzyme in elastic fiber formation and stabilization. The available data suggest that LOXL1 is markedly dysregulated depending on the stage of the fibrotic process. While transient upregulation of LOXL1 during the early stages of PEX fibrogenesis participates in the formation and aggregation of abnormal PEX fiber deposits, the decreased expression of LOXL1 during the advanced stages of the disease may affect elastin metabolism and promote elastotic processes, e.g. in the lamina cribrosa, predisposing to glaucoma development. However, in view of the low penetrance of the PEX-associated risk variants of LOXL1, other genetic and/or environmental factors must contribute to the risk of developing the PEX phenotype. Some evidence exists for the contribution of additional genes with relatively small effects, e.g. clusterin [CLU], contactin-associated protein-like 2 [CNTNAP2], apolipoprotein E [APOE], glutathione S-transferases [GSTs], and tumor necrosis factor-alpha [TNFA], in certain study populations. Several environmental conditions associated with PEX, such as oxidative stress as well as pro-fibrotic cytokines and growth factors, can regulate expression of LOXL1 and elastic proteins in vitro and may therefore act as co-modulating external factors. Ultimately, both detection and functional characterization of yet unidentified genetic and non-genetic factors may lead to the development of more precise screening tools for the risk of PEX glaucoma.

Eye Diseases, Hereditary

Genetic diagnostic methods for inherited eye diseases.
Gabriel, Luis A.R.; Traboulsi, Elias I.
Center for Genetic Eye Diseases - Department of Pediatric Ophthalmology and Strabismus
Keywords: Mutation; Karyotyping; Eye Diseases-genetics; Molecular Diagnostic Techniques
Abstract: Accurate molecular diagnosis of genetic eye diseases has proven to be of great importance because of the prognostic and therapeutic value of an accurate ascertainment of the underlying genetic mutation. Efforts continue in diagnostic laboratories to develop strategies that allow the discovery of responsible gene/mutations in the individual patient using the least number of assays and economizing on the expenses and time involved in the process. Once the ophthalmologist has made the best possible clinical diagnosis, blood samples are obtained for genetic testing. In this paper we will review the basic laboratory methods utilized to identify the chromosomal or mutational etiology of genetic diseases that affect the eye.
Eyelids

abnormalities

Acquired epiblepharon treated by lateral orbital and fat decompression.
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National University Health System - Queen Victoria Hospital - Department of Ophthalmology
Keywords: Eyelids-surgery; Decompression, Surgical; Orbit-surgery
Abstract: Conventional lid surgery of acquired epiblepharon secondary to increased orbital volume can be result of under correction of the epiblepharon, because the increased orbital volume remains unaddressed. In this case report, we present a case of acquired epiblepharon, secondary to increased orbital volume, treated with orbital decompression.

Fatty Acids, Volatile

Study of syntrophic anaerobic digestion of volatile fatty acids using enriched cultures at mesophilic conditions.
Tarbiat Modares University - Faculty of Engineering - Department of Chemical Engineering
International Journal of Environmental Science and Technology 2011; 8 (1): 83-96 (37 ref.)
Keywords: Digestion; Acetogenins; Eurysarchaeota; Metabolism; Bioreactors; Sewage; Biofuels
Abstract: Volatile fatty acids are the most important intermediates in anaerobic digestion, and their degradations are extremely complicated thermodynamically. In this research, syntrophic anaerobic digestion of volatile fatty acids using enriched acetogenic and methanogenic cultures in a batch reactor at mesophilic conditions was investigated. Interactive effects of key microbiological and operating variables [propionic, butyric and acetic acids, retention time and methanogen to acetogen populations ratio] on the anaerobic degradation of volatile fatty acids were analyzed. Acetogenic and methanogenic anaerobes in the granular sludge from an up-flow anaerobic sludge blanket reactor were enriched at mesophilic conditions within a period of four weeks, separately. Enriched cultures were mixed with known proportions and then used in the bioreactor. Experiments were carried out based on central composite design and analyzed using response surface methodology. Four parameters [final concentrations of propionic, butyric and acetic acids and biogas production] were directly measured as response. Also, the optimum conditions for volatile fatty acid degradation were found to be 937.5 mg/L, 3275.5 mg/L, 2319.5 mg/L, 45 h and 2.2 proportions for propionic acid, butyric acid, acetic acid, retention time and methanogen to acetogen populations ratio, respectively [corresponding to maximum volatile fatty acid removal efficiencies and biogas production]. The results of the verification experiment and the predicted values from the fitted correlations at the optimum conditions were in close agreement at a 95% confidence interval. The present study provides valuable information about the interrelations of quality and process parameters at different values of microbiological and operating variables.

Fecal Incontinence

therapy

Injectable anal bulking agent for the management of faecal incontinence.
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Castle Hill Hospital - Department of Surgery
JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 227-229 (12 ref.)
Keywords: Injections; Anal Canal-abnormalities; Anal Canal-ultrasonography; Collagen-therapeutic use; Pain Measurement; Retrospective Studies; Treatment Outcome
Abstract: This study was conducted to determine the safety and efficacy of injectable bulking agents. A total of 13 procedures were performed on 11 patients with faecal incontinence during 2002 to 2007. Patients with internal anal sphincter defect and low incontinence score [Cleveland score 10] revealed improvement. Patients with higher incontinence score and external sphincter defect secondary to obstetric damage required further intervention. At a median follow-up of 43 months, 7 [63%] patients showed improvement in incontinence score and 4 [32%] showed marked improvement in their symptoms. Fifty six percent of the patients described this as an effective procedure, though the level of effectiveness varied from person to person. Anal injectable collagen was found safe and effective in the management of faecal incontinence. Long-term follow-ups are required to re assess and consider definitive procedure in failed cases.
Femoral Neck Fractures

etiology

Simultaneous bilateral femoral neck fractures. Etiology and outcome in a consecutive case series.
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Assiut University Hospital - Department of Orthopedics
Assiut Medical Journal 2010; 34 (3): 155-166 (45 ref.)

Keywords: Femoral Neck Fractures-surgery; Follow-Up Studies; Treatment Outcome

Abstract: A case series of seven patients with simultaneous bilateral femoral neck fractures is presented. Six patients were females and one patient was male with an age range from 18-68 years. The mechanism of injury was high-energy trauma in one patient. In the remaining six patients, the trauma was a minor trauma with the presence of a predisposing disease. These included epilepsy in two patients [fractures followed convulsions in one patient], and osteomalacia, primary hyperparathyroidism, chronic renal failure, bone metastasis [one patient each]. The surgical procedures included internal fixation by cancellous lag screws in one patient, intertrochanteric valgus repositioning osteotomy and plating in one patient, and hemiarthroplasty [unipolar or bipolar] in five patients. At the final follow-up, five patients were available for evaluation of the index operation [one patient died and another was lost to follow-up]. Follow-up averaged 50 months [range 18-77 months]. For the fixation group patients [n=2], all fractures healed and the functional score was excellent in one patient and good in one patient. For the replacement group [n=3], two patients had a good result and the third patient was considered a failure of the index surgery. Despite being rare, exploring reported cases with bilateral femoral neck fractures can help in establishing a high index of suspicion for identifying patients who are at risk aiming at early diagnosis and better management.

Fetal Blood

[Study of topical human umbilical cord blood serum in the treatment of alkaline corneal epithelial wounds in rabbit model].
Sharifi, B.; Mousavizadeh, A.; Akbarzadeh, M.; Tokhmehchi, M.R.
Yasuj University of Medical Sciences - Faculty of Medicine - Department of Ophthalmology
Armaghane - danesh 2011; 16 (1): 61-68 (15 ref.)

Keywords: Epithelium, Corneal-injuries; Wound Healing; Rabbits; Treatment Outcome

Abstract: One of the important functions of the cornea is to maintain normal vision by refracting light onto the lens and retina. This property is dependent in part on the ability of the corneal epithelium to undergo continuous renewal. Ocular surface failure which follows a variety of endogenous and exogenous precipitating factors, the most common being: chemical trauma, infection, alkaline burn, inflammation and hereditary conditions, lid or lash abnormalities tear deficiency or reduced sensation. The core principal underpinning management strategy for ocular surface failure is establishing or promoting new growth of healthy conjunctiva and corneal epithelium. This process is mediated by many proteins that are inducers of corneal cell migration, proliferation, and differentiation. The current study was performed to investigate the efficacy of umbilical cord serum on alkaline corneal epithelial wound healing in the rabbit model. In this study conducted at Yasuj University of Medical Sciences in 2010, thirty two rabbits were randomly assigned into two equal groups. Central corneal alkali wound was formed in one eye of the rabbits by applying a 6-mm round filter paper, soaked in 1 N NaOH, for 60 seconds. Group one of animals received umbilical cord blood serum; and group two received Sno Tear in the eyes. The treatment was dosed 4 times a day with the eye drops, and epithelial wound closure was recorded using slit lamp. The data were analyzed to determine the rate of wound closure. The mean wound radius closure rate was 0.77 mm/day [SD=0.013] for umbilical cord blood serum-treated eyes, 0.73 mm/day [SD=0.018] for artificial tear-treated eyes. This study shows that alkali-injured corneal epithelial wound heal faster when treated with umbilical cord blood serum than with artificial tear in rabbit model.

Fibromatosis, Abdominal

diagnosis

Desmoid tumour of lower abdomen.
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Karachi Medical and Dental College - Department of Surgery
JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 247-249 (10 ref.)
Keywords: Fibromatosis, Aggressive-diagnosis; Fibromatosis, Abdominal-pathology; Fibromatosis, Abdominal-surgery; Tomography, X-Ray Computed

Abstract: A desmoid tumour is slow growing fibromatosis with aggressive infiltration of adjacent tissue and extremely unusual systemic metastases. We report a case of a female patient aged 25 years who had a mass in lower abdomen for 2 years. There was no previous history of any surgical intervention. Preoperative evaluation included ultrasound and computed tomography. Patient underwent primary resection with wide margins. Histology revealed a desmoid tumour.

Fuel Oils

The effect of opium poppy oil diesel fuel mixture on engine performance and emissions.
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Afyon Kocatepe University - Technical Education Faculty - Machine Education Department
International Journal of Environmental Science and Technology 2011; 8 (1): 57-62 (34 ref.)

Keywords: Gasoline; Fossil Fuels; Opium; Ethiodized Oil; Vehicle Emissions; Plant Oils

Abstract: Recently, decreasing of fossil fuel reserves and their negative effect on environment have increased the interest in alternative energy sources. One of the alternative energy sources is vegetable oils. In this study, blends of 50% opium poppy oil 50% diesel fuel mixture are tested as alternative fuel on a single cylinder, 4-stroke, air cooled, pre-combustion chamber diesel engine at different speeds and its effects on engine performance and emissions are investigated. When compared to the diesel fuel as average, engine torque and power decrease at 4% and 5.73%, respectively. Specifically, fuel consumption increases by using of 50% opium poppy oil 50% diesel fuel mixture. When compared to the diesel fuel as average, carbon monoxide and nitrogen oxides emissions of 50% opium poppy oil 50% diesel fuel mixture decrease to 15.5% and 5.9%, respectively. Diesel fuelopium poppy oil mixture has been found notably successful and environment friendly as an alternative fuel for diesel engines.

Gallbladder Neoplasms

epidemiology

Gallbladder carcinoma; frequency in patients under going cholecystectomy for chronic cholecystitis.
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Sargodha Medical College

Keywords: Cholecystectomy; Cholecystitis-surgery; Gallbladder Neoplasms-diagnosis; Gallbladder Neoplasms-ultrasonography

Abstract: Chronic Cholecystitis is one of the commonest diseases presenting in surgical department and is subjected to cholecystectomy each time. Asuspicious gall bladder on ultrasound initiates further investigations to rule out carcinoma of gall bladder yet some times a benign looking gall bladder on ultrasound turns out to be carcinoma of gall bladder on histopathology. Descriptive study. District Head Quarters Hospital, Sargodha, from September 2007 to March 2009. 200 patients who underwent both open and Laparoscopic cholecystectomy for cholelithiasis were subjected to this study. All relevant data was documented on a standardized data form. Patients were between the ages of 28-74. Patients already diagnosed as Gallbladder Carcinoma, empyema gall bladder, mucocele and gall bladder polyp were excluded from the study. Gall bladders removed after each surgery ware sent to laboratory for histopathological evaluation. A total of 200 cases were studied [161 females, 39 males; M: F ratio 1:4]. The mean age was 45 years [range 28-74 years]. The most common presenting complaint was pain right hypochondrium with nausea and vomiting [85%].The average operating time was 50 minutes in case of open cholecystectomy and 1 hour in laparoscopic cholecystectomy. Complications included biliary leak in 2 patients [1%], Wound Infection in 3 patients [1.5%] and death in one case [0.5%]. The overall rate of complications was 3%. There were a total of 5 patients of laparoscopic cholecystectomy who required extension of the incision, for Carcinoma Gallbladder. Carcinoma of gall bladder is a very aggressive malignancy and usually presents at a very advance stage as its symptoms mostly are marked by symptoms of cholecystitis. Detection of gall bladder carcinoma is very difficult in early stages on ultrasound. Any findings in ultrasound suggesting malignancy should be confirmed on further investigations like CT scan. Carcinoma of Gall bladder is not very common in cases of cholecystectomy for chronic Cholecystitis but once found should be dealt with extreme precision following established operating protocols.
Garlic

chemistry

[The effect of heating on useful components of garlic].
Shirzad, H.; Taji, F.; Rafieian, M.
Shahrekord University of Medical Sciences - Cellular and Molecular Research Center
Armaghane - danesh 2011; 16 (1): 9-20 (32 ref.)
Keywords: Antioxidants; Heating; Flavonoids

Abstract: Garlic [Allium sativum. L] is an important dietary herb which its useful compounds may be altered during different processes. The aim of this study was to evaluate the effect of heating on the amounts of allicin, felavonol, felavonoid, total phenolic components, and antioxidant capacity of garlic. In this experimental study which was conducted at Shahr-e-Kord University of Medical Sciences in 2009, the alcoholic extract of fresh, micro waved, and boiled garlic were prepared. Then, their antioxidant capacities were evaluated in linoleic acid and beta-carotene linoleate system. The phenolic contents were measured with Folin-ciocalteu method, felavonoid or felavonol contents with aluminum coloride method, and allicine contents with spectrophotometry method. Collected data were statistically analyzed using the SPSS software. Differences between the means of groups were evaluated by a two-tailed t-test for independent samples. The fresh and fresh boiled garlic had the highest and lowest antioxidant activities, respectively [P<0.05] while no difference was found between fresh and micro waved garlic [P>0.05]. The flavonoid and phenolic compounds in fresh garlic were more than micro waved or boiled garlic. The allicin content in fresh garlic was also higher then micro waved or boiled garlic [P<0.05]. All of these components were low in boiled garlic. Fresh garlic has the most useful compounds and consumption of this form of the vegetable is recommended.

Gastric Outlet Obstruction

etiology

Nail mine in stomach.
Khan, Saqib Uddin; Aqeel, Kunwar Muhammad; Anwar, Nosheen; Haider, Jahanzaib; Khan, Tariq Mehmood
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Abbasi Shaheed Hospital - Department of Surgery
JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 250-251 (10 ref.)
Keywords: Foreign Bodies-complications; Stomach-radiography; Foreign Bodies-radiography; Abdominal Pain-etiology; Constipation-etiology; Nails

Abstract: Ingestion of foreign bodies is a common clinical scenario in any emergency department. Presence of thousands of ingested foreign bodies inside stomach is a rare scene. However, only a few such cases have been reported. Here we present a case of young adult man with known psychiatric disorder, having 2562 nails in his stomach leading to gastric outlet obstruction. Gastrotomy was employed to relieve the stomach of this mine of nails. Later psychiatric care was also provided.

Genetic Heterogeneity

Genetic heterogeneity for autosomal dominant familial hypertrophic cardiomyopathy in a Pakistani family.
Abid, Aiysha; Akhtar, Naveed; Khaliq, Shagufta; Mehdi, S. Qasim
Sindh Institute of Urology and Transplantation - Centre for Human Genetics and Molecular Medicine
Keywords: Cardiomyopathy, Hypertrophic, Familial-genetics; Chromosomes, Human, Pair 1; Genetic Linkage; Microsatellite Repeats; Mutation; Pedigree; Sequence Analysis, DNA; Troponin I-genetics; Troponin T-genetics

Abstract: To identify the gene causing inherited hypertrophic cardiomyopathy [HCM] in a Pakistani family. Cross-sectional, observational study. Department of Cardiology, Shifa International Hospital and Biomedical and Genetic Engineering Laboratories, Islamabad, from 2005 to 2007. A large family of 17 individuals was included in this study. In the family 6 members were suffering from hypertrophic cardiomyopathy. Linkage analysis was carried out to map the disease-causing gene. Genomic DNA from each individual of the whole family was genotyped for microsatellite markers for all the known HCM loci followed by a whole genome search. Automated DNA sequencing was done for mutation identification in the candidate genes. Linkage analysis of 17 family members showed a maximum two point
Lod score of 3.97 with marker D1S1660 at chromosome 1q 32.2. A disease region of 4.16cM was defined by proximal and distal cross-overs with markers GATA135F02 and D1S3715 respectively. This region contained the candidate genes TNNT2 [cardiac troponin T] and TNNI1 [troponin I 1]. Direct sequencing of these genes for the whole family containing 17 members showed no disease-associated mutation in either of these genes. Through linkage analysis, a disease locus for HCM family was mapped within a region of 4.16cM at chromosome 1q31.3-q32.1. So far no disease-associated mutation has been found in the candidate genes.

Gibberellins

Influence of Gibberelllic Acid [GA3] on Renal Cortex of Adult Male albino Rats [Histological, Immunohistochemical and Biochemical Study].
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Zagazig University - Faculty of Medicine - Histology and Cell Biology Department
Egyptian Journal of Histology [The] 2010; 33 (4): 767-780 (43 ref.)
Keywords: Plant Growth Regulators; Kidney Cortex-pathology; Immunohistochemistry; Kidney Cortex-ultrastructure; Microscopy; Electron; Rats; Oxidative Stress
Abstract: Plant growth regulators [PGRs] especially gibberellics acids [GA3] are widely used in Egypt to increase plant size, production and to increase plant availability all the year. Little is known about the biochemical or physiological effects of GA3 in mammalian tissues. This study aimed to evaluate the histological, immunohistochemical and biochemical changes in the rat renal cortex with subacute and subchronic exposure to GA3 and to detect the possible mechanism of such toxicities. Fifty adult male albino rats were classified into control group [I], experimental group [IIa and IIb] received GA3 in a dose of 75ppm [part per million]. Seventy five parts per million of GA3 as drinking water for 2weeks in subgroup IIa [subacute exposure] and for 8 weeks in subgroup IIb [subchronic exposure]. Group III [recovery group]: Rats received GA3 for 8weeks and stopped for other 6weeks. Renal cortex was stained with H and E, Masson's trichrome, immunohistochemically for Bcl-2 protein and electron microscopic examination. Oxidative biomarker [MDA] was detected in kidney tissue and antioxidant enzymes were detected in erythrocyte pellets prepared from blood sample. GA3 administration in group [II], led to degeneration, necrosis, apoptosis of the epithelial cells lining some of the tubules of the renal cortex with subacute toxicity and in most of the tubules with subchronic toxicity, fibrosis is significantly apparent in the subchronic subgroup. Interstitial cellular infiltration and hemorrhage were seen. Hyaline casts in the lumen of renal tubules were apparent in the subchronic subgroup. Area percentage of antiapoptotic protein Bcl-2 immunoreactivity was decreased in the subchronic subgroup. Picture of cystic glomerular atrophy, acute tubular necrosis, degenerated podocytes and thickened blood renal barrier became prominent in the subchronic subgroup. The histological changes were associated with biochemical markers of oxidative stress. These changes were reduced in the recovery group but not retained to normal and the picture of oxidative stress was still present. The findings implied that gibberellic acid [GA3] induced nephrotoxic effect associated with oxidative stress with some sort of self recovery after stoppage of exposure. So, gibberellic acid should be used cautionary. Also, producers and consumers should be in conscious on the probable toxic effects of these chemicals.

Glaucoma

etiology

Inflammatory glaucoma.
Bodh, Sonam A.; Kumar, Vasu; Raina, Usha K.; Ghosh, B.; Thakar, Meenakshi
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Maulana Azad Medical College - Department of Ophthalmology
Keywords: Uveitis-complications; Glaucoma-drug therapy; Intraocular Pressure; Ocular Hypertension-etiologie; Glaucoma-pathology; Inflammation-complications
Abstract: Glaucoma is seen in about 20% of the patients with uveitis. Anterior uveitis may be acute, subacute, or chronic. The mechanisms by which iridocyclitis leads to obstruction of aqueous outflow include acute, usually reversible forms [e.g., accumulation of inflammatory elements in the inter trabecular spaces, edema of the trabecular lamellae, or angle closure due to ciliary body swelling] and chronic forms [e.g., scar formation or membrane overgrowth in the anterior chamber angle]. Careful history and follow-up helps distinguish steroid-induced glaucoma from uveitic glaucoma. Treatment of combined iridocyclitis and glaucoma involves steroid and nonsteroidal anti-inflammatory agents and antiglaucoma drugs. However, glaucoma drugs can often have an unpredictable effect on intraocular pressure [IOP] in the setting of uveitis. Surgical intervention is required in case of medical failure. Literature on the Medline database was searched using the PubMed interface.
Is symptomatic atherosclerotic cerebrovascular disease a risk factor for normal-tension glaucoma?
Gungor, Inci Ulu; Gungor, Levent; Ozarslan, Yakup; Ariturk, Nursen; Beden, Umit; Erkan, Dilek; Onar, Musa Kazim; Oge, Ihsan
Ondokuz Mayis University - School of Medicine - Departments of Ophthalmology
Medical Principles and Practice 2011; 20 (3): 220-224 (26 ref.)
Keywords: Cerebrovascular Disorders-complications; Intraocular Pressure; Optic Nerve Diseases; Intracranial Arteriosclerosis; Risk Factors
Abstract: To compare the incidence of glaucomatous optic disk appearance between patients with symptomatic atherosclerotic stroke and healthy individuals with normal intraocular pressures [IOP]. 46 patients with ischemic stroke with evident lacunar infarction or large vessel atherosclerosis, and 93 age- and sex-matched healthy individuals, all with normal IOP, were included. Patients and controls were examined for the presence of high cup-to-disk ratios [>0.5]. Seven patients [15.22%] in the ischemic cerebrovascular disease [CVD] group and 3 controls [3.23%] had glaucomatous optic disk appearance. All subjects with glaucomatous optic disk appearance in the control group and 3 patients in the study group had visual field defects in concordance with normal-tension glaucoma [NTG]. The incidence of glaucomatous optic disk appearance was significantly higher in the group with symptomatic atherosclerotic CVD. Atherosclerotic CVD is a risk factor for having glaucomatous optic disk appearance. Symptomatic atherosclerosis involving the brain vasculature may also affect the eye and lead to NTG. Patients with ischemic strokes due to large artery atherosclerosis or small artery occlusion must be examined and followed for NTG.

Primary congenital glaucoma and the involvement of CYP1B1.
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Kallam Anji Reddy Molecular Genetics Laboratory
Keywords: Genes, Recessive; Mutation; Aryl Hydrocarbon Hydroxylases
Abstract: Primary congenital glaucoma [PCG] is an autosomal recessive disorder in children due to the abnormal development of the trabecular meshwork and the anterior chamber angle. With an onset at birth to early infancy, PCG is highly prevalent in inbred populations and consanguinity is strongly associated with the disease. Gene mapping of PCG-affected families has identified three chromosomal loci, GLC3A, GLC3B and GLC3C, of which, the CYP1B1 gene on GLC3A harbors mutations in PCG. The mutation spectra of CYP1B1 vary widely across different populations but are well structured based on geographic and haplotype backgrounds. Structural and functional studies on CYP1B1 have suggested its potential role in the development and onset of glaucomatous symptoms. A new locus [GLC3D] harboring the LTBP2 gene has been characterized in developmental glaucoma but its role in classical cases of PCG is yet to be understood. In this review, we provide insight into PCG pathogenesis and the potential role of CYP1B1 in the disease phenotype.

Glioma

immunology

CD 117 tyrosine kinase receptor expression in gliomas.
Abdel Rhman, Yasser G.; Mohamad, Eman A.; Yassin, Etemad H.; Guirguis, Marcelle N.
Assiut University - Faculty of Medicine - Department of Pathology
Assiut Medical Journal 2010; 34 (3): 111-124 (27 ref.)
Keywords: Proto-Oncogene Proteins C-Kit; Biological Markers
Abstract: Gliomas are the most common primary brain tumors. Despite therapeutic advances, the majority of gliomas do not respond to either chemo or radiotherapy. CD117, the gene product of c-kit has been expressed in glial tumors. Because gastrointestinal stromal tumors [GISTs] that express CD117 respond dramatically to treatment with tyrosine kinase inhibitors, identification of glial tumors that express CD117 might open new therapeutic approaches for treatment of these tumors. This work was planned to study the role of CD117 [KIT] in the development and progression of gliomas mainly astrocytomas. Also, to assess if CD117 might serve as a biomarker for those gliomas that might respond to tyrosine kinase inhibitors. We studied 71 cases of gliomas. They were 59 astrocytomas, 9 ependymomas, 2 mixed oligoastrocytomas and single case of anaplastic oligodendroglioma. Paraffin embedded sections were immunostained using primary antibodies against CD117. Antigen antibody reaction was detected by streptavidin-biotin kit. In the present work, CD 117 immunoreactivity was noted in different grades of astrocytomas. The CD 117 average weighted scores showed gradual upregulation with increasing grade from pilocytic astrocytoma [16.7%]-diffuse astrocytoma grade II [33.3%]-anaplastic astrocytoma [66.7%] -glioblastoma multiforme [79.3%]. Majority of the gliomas [57.7%] were found to express CD117 to varying degrees, and high grade tumors [78.6%] had a higher proportion of CD117 expression than low grade tumors [27.6%]. In 21.12% of studied cases, the CD117 was expressed in endothelial cells of tumor blood vessels. Twelve cases of them [80%] were most prominent in microvascular
proliferations of high grade tumors and eleven cases of them showed strong intensity. High grade astrocytomas [especially glioblastoma multiforme] showed more frequent and strong expression of CD117, this indicate that CD117 may has possible role in early astrocytoma tumorigenesis and in progression. Also, CD117 may serve as a biomarker for those gliomas that respond to tyrosine kinase inhibitor drugs.

therapy

Clinical development of experimental therapies for malignant glioma.
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Department of Neurosurgery
SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 5-28 (128 ref.)
Keywords: Gene Therapy-trends; Genetic Vectors-therapeutic use; Glioma-genetics; Drug Delivery Systems; Immunotoxins-therapeutic use; Polymers-therapeutic use
Abstract: Advances in medical and surgical treatments in the last two to three decades have resulted in quantum leaps in the overall survival of patients with many types of non-central nervous system [CNS] malignant disease, while survival of patients with malignant gliomas [WHO grades 3 and 4] has only moderately improved. Surgical resection, external fractionated radiotherapy and oral chemotherapy, during and after irradiation, remain the pillars of malignant glioma therapy and have shown significant benefits. However, numerous clinical trials with adjuvant agents, most of them administered systemically and causing serious complications and side effects, have not achieved a noteworthy extension of survival, or only with considerable deterioration in patients’ quality of life. Significant attention was focussed in the last decades on the cell biology and molecular genetics of gliomas. Improved understanding of the fundamental features of tumour cells has resulted in the introduction and increasing clinical use of local therapies, which employ spatially defined delivery methods and tumour-selective agents specifically designed to be used in the environment of a glioma-invaded brain. This review summarises the key findings of some of the most recent and important clinical studies of locally administered novel treatments for malignant glioma. Several such therapies have shown considerable anti-tumour activity and a favourable profile of local and systemic side effects. These include biodegradable polymers for interstitial chemotherapy, targeted toxins administered by convection enhanced delivery, and intraand peritumourally injected genetically modified viruses conferring glioma-selective toxicity. Areas of possible improvement of these therapies and essential future developments are also outlined.

Glomerulonephritis, IGA

pathology

IgA nephropathy: an update on pathogenesis and classification.
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JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 230-233 (45 ref.)
Keywords: Glomerulonephritis, IGA-classification; Prognosis; Disease Progression; Glomerulonephritis, IGA- etiology; Immunoglobulin A; Kidney-immunology
Abstract: IgA nephropathy is a primary glomerulopathy characterized by deposition of IgA containing immune deposits in the kidney. Its diagnosis is based on histopathologic and immunofluorescence studies on renal biopsy. The disorder is poorly understood. This review is focused on updates regarding its pathogenesis and discussion on a new proposed histopathological classification of IgA nephropathy.

Granuloma

parasitology

Solitary cerebral cysticercus granuloma.
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Sultan Qaboos University Hospital - Department of Medicine
SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 119-121 (9 ref.)
Keywords: Cysticercus; Neurocysticercosis; Brain Diseases-complications; Headache-etiology; Tomography, X-Ray Computed; Seizures-etiology
Graves Ophthalmopathy

surgery

Change in quality of life after medical and surgical treatment of Graves' ophthalmopathy.
Kashkouli, Mohsen Bahmani; Heidari, Iraj; Pakdel, Farzad; Jam, Sara; Honarbaksh, Yasamin; Mirarmandehi, Bahareh
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Iran University of Medical Sciences - Eye Research Center - Department of Eye
Keywords: Exophthalmos-surgery; Quality of Life; Prospective Studies; Cross-Sectional Studies; Questionnaires
Abstract: To assess the changes in quality of life [QOL] of patients after treatment of their Graves' ophthalmopathy [GO]. In this prospective, cross-sectional study, the GO-QOL questionnaire was completed by 67 subjects before and at least 6 months after steroid treatment [61 subjects, group 1] or optic neuropathy orbital decompression [6 subjects, group 2]. Visual, psychosocial, educational, and counseling scores [higher score = better health], GO severity and clinical activity scores and minimal clinically important difference [MCID] were recorded and analyzed for correlation and statistical significance. A P-value <0.05 was considered statistically significant. The mean age of patient enrolled in the study was 38.3 years, with 43 females [64.2%]. The mean duration of thyroid dysfunction and GO were 40.1 and 26.5 months, respectively. Two treatment groups were similar for all the variables [0.06 < P < 0.9], except for higher mean age in the orbital decompression group [45.2 versus 37.7 years] [P = 0.03]. Mean severity, activity, and psychosocial function scores significantly improved in group 1 [steroid group] [P < 0.05, all cases]. A significant improvement in clinical activity score and psychosocial scores occurred in group 2 [decompression group] [P < 0.05, MCID was achieved in two-thirds of the patients, with no significant difference between groups [P > 0.05]. There was no significant effect of duration of thyroid disease and GO and severity and activity of GO on QOL scores either before or after treatment [P > 0.05, all cases]. Steroid treatment and orbital decompression significantly improve the QOL in GO. Duration, severity and activity of GO did not have a significant impact on the QOL.

Hand

Hand parameters of adult Libyans.
Mohamed, Mohamed El Badry; Sulaiman, Ahmed Mohamed
Al-Fateh University - Faculty of Medicine - Department of Human Anatomy and Embryology
Assiut Medical Journal 2010; 34 (3): 43-50 (23 ref.)
Keywords: Dermatoglyphics; Adult; Students, Medical; Anthropometry
Abstract: The hand measurements were carried out on both hands and all fingers of each volunteer to perform a standard for the Libyan population. Hand print impressions of 200 adult Libyan volunteers [100 males and 100 females] were taken. They are right handed. They live in the city of Tripoli. They are students a Faculty of Medicine, Al-Fateh University. Their ages were from 18-20 years old. They have good health and free of any chronic debilitating disease. The parameters studied were maximum length and breadth of both hands and for each finger of both hands. Hand Index [maximum hand width / hand length X 100] and finger Index [maximum finger width /finger length X 100] for each finger were estimated. The data were analyzed using different histograms. The data show the presence of bisexual highly significant differences and bilateral non-significant differences of almost all hand and finger parameters. Also, these data are different from that found before in other populations. Variations in hand measurements may be attributed to several factors like genetic, racial, geographical, climatic and nutritional. This work is the first study done on Libyans and was presented, discussed and accepted at the First International Congress of Medical Science, Towards Advanced Medical Horizons. Al-Baida, Libya, 23-25/04/2010, pp: 84.

Heart Diseases

Factors affecting quality of life of cardiac patients in Jordan.
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Mutah University - Princess Muna College for Nursing - Health Nursing Department
Keywords: Patients; Quality of Life; Questionnaires; Exercise Therapy
Abstract: Cardiac disease has profound negative effect on quality of life as examined in previous and recent studies. Impaired quality of life, in turn, has been associated with increased morbidity and mortality among cardiac patients. Exploring of research based factors that may reduce quality of life among cardiac patients presents opportunities to plan strategies to increase quality of life among those patients. To examine the differences in quality of life among Jordanian cardiac patients in relation to:-Gender differences.-Economical status.-Exercise performance. Using a descriptive comparative research design, a convenient sample consisted of 118 cardiac patients [59 male and 59 female] was selected from patients admitted to Queen Alia Cardiac Center-Jordan over a period of four months.
Subjects completed a quality of life assessment questionnaire included global health scale, functional scale, and symptoms scale items. Data were analyzed using descriptive statistics, t-test, and one-way ANOVA. The QOL of the study sample was located in the moderate level in all dimensions, and women had scored less than men in all dimensions of QOL. Results revealed significant differences in quality of life [p=.017] in relation to gender in favor of male patients, and significant differences related to exercise performance [p=.03], but no significant differences in relation to economical Status were found. Cardiac patients performing exercises have increased quality of life than whom not performing exercise, and men with cardiac disease indicated significantly higher quality of life than women. Strategies to increase practicing exercises may be important for health and well being of cardiac disease patient, and gender differences have to be taken in consideration when taking care for those patients.

Heart Septal Defects, Ventricular surgery

Double flap patch closure of VSD with elevated pulmonary vascular resistance: an experience at AFIC/NIHD.
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National Institute of Heart Diseases - Department of Cardiac Surgery
JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 197-201 (27 ref.)
Keywords: Cardiac Surgical Procedures-methods; Cardiopulmonary Bypass; Hypertension, Pulmonary-prevention and control; Prostheses and Implants; Surgical Flaps; Vascular Resistance
Abstract: To determine the 30 days outcome measured in terms of morbidity and mortality in cases of ventricular septal defect [VSD] with increased pulmonary vascular resistance [PVR] managed with double flap patch closure. Case series. Armed Forces Institute of Cardiology [AFIC/NIHD], Rawalpindi, from December 2005 to December 2008. Forty patients with VSD having PVR 9.58 + 4.33 wood units underwent double flap patch closure. The patch was fenestrated as one half of the expected aortic annulus diameter. A separate flap patch 5 mm larger than fenestration was attached to superior upper one third margins of fenestration. The patch was placed with flap to open towards the left ventricular apex. Modified ultra filtration [MUF] was employed in every case and sildenafil was given postoperatively. The age of patients ranged from 1 to 28 years with a mean of 6.66 + 5.70 years. There were 22 males and 18 females. All patients were weaned off from inotropic and ventilatory support as earlier as possible postoperatively. The age of patients ranged from 1 to 28 years with a mean of 6.66 + 5.70 years. There were 22 males and 18 females. All patients were weaned off from inotropic and ventilatory support as earlier as possible postoperatively with intensive care unit [ICU] stay of 77.15 + 54.56 hours. Postoperative pulmonary artery pressures were reduced to 42.63 + 10.86 mmHg as compared to pre-operative pulmonary artery pressures of 88.3 + 15.2 mmHg. Postoperatively 11 patients with suprasystolic pulmonary artery pressures and desaturation went into pulmonary hypertensive crisis in which immediate 2D echo evidenced the functioning flap valve with right to left shunt. There was only one death [early] out of 40 patients with an overall mortality of 2.5% along with limited morbidity. Double flap patch is an inexpensive, easy to construct technique with low morbidity and mortality in cases of VSD with raised PVR.

Hematoma diagnosis

Spontaneous subcapsular renal hematoma: a case report and review of literature.
Baishya, Ramen Kumar; Dhawan, Divya R.; Sabnis, R.B.; Desai, Mahesh R.
Muljibhai Patel Urological Hospital - Department of Urology
Urology Annals 2011; 3 (1): 44-46 (20 ref.)
Keywords: Kidney Diseases; Tomography, X-Ray Computed; Hypertension; Ultrasonography; Review Literature as Topic
Abstract: Spontaneous subcapsular renal hematoma is not a common entity. We report a 38-year-old lady presenting with sudden onset right flank pain with uncontrolled hypertension and she was found to have subcapsular collection in the right kidney on ultrasonography. Finding was confirmed on computed tomography. Except hypertension, no particular cause for the condition could be found. Symptoms and size of the collection decreased on conservative treatment. They completely disappeared on ultrasonography at 6 months follow-up. She was asymptomatic at 18 months follow-up.
Hepatitis B

epidemiology

Hepatitis 'B' and 'C' prevalence in orthopaedics patients.
Iqbal, Muhammad Zafari; Malik, Muhammad Razaq; Azeem, Muhammad
Sheikh Zayed Medical College
Keywords: Hepatitis C-epidemiology; Prevalence; Risk Factors; Orthopedic Procedures; Prospective Studies; Cohort Studies
Abstract: Hepatitis B and C is a global problem. The prevalence of hepatitis B and C in orthopedic patients is quite high with the common risk factors: previous history of surgery or blood transfusion. The objectives of this study were to, “Find out the prevalence of Hepatitis B and C and their risk factors in patients admitted in Orthopedic Unit of Sheikh Zayed Medical College Hospital Rahim Yar Khan.” This was a prospective cohort study. The duration was from July 2009 to December 2009. This study was conducted in Orthopedic Department of Sheikh Zayed Medical College Hospital Rahim Yar Khan. Patients of either sex and of all ages who were undergoing orthopedic surgery were included in the study. All patients underwent screening for Hepatitis-B and Hepatitis-C and confirmed by Elisa method in positive patients. Data regarding age, sex, HBV, HCV was noted and analyzed by SPSS version 14. Among 745 patients. 581 [77.98%] were male and 164 [22.02%] were female. Hepatitis B and C was present in 165 [22.15] patients. Out of these positive cases 125 [75.76%] were suffering from hepatitis C and 36 [21.81%] were suffering from hepatitis B, and 4 [2.43%] patients were positive for both HBV and HCV. Among the predisposing factors previous history of surgery was positive in 39 patients; history of blood transfusion in 27 patients, dental procedure was in 17 patients' and 123 patients having injection therapy in the past. All the patients who need surgery should be properly screened for HBV and HCV. It is also necessary that separate operation theaters and instruments should be used for HBV and HCV positive cases.

Hepatitis B Vaccines

Hepatitis B vaccine coverage and the immune response in children under ten years old in Sana'a, Yemen.
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Sana'a University - Faculty of Medicine and Health Sciences - Department of Medical Microbiology
SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 77-82 (31 ref.)
Keywords: Hepatitis B-immunology; Hepatitis B-prevention and control; Enzyme-Linked Immunosorbent Assay; Carrier State
Abstract: The study was undertaken, first, to determine the coverage rate of hepatitis B [HB] vaccine and second to evaluate the immune response to HB vaccine among children under 10 years old by measuring the level of circulating anti-HB surface antigen [anti-HBs] antibodies after immunization with three doses. First, 840 children were randomly selected from 4 randomly selected sites in Sana'a city to study the coverage rate of the vaccine; of these, 504 children vaccinated against HBV prior to the study, were tested [56% males and 44% females]. Sera were tested for anti-HBs antibodies by ELISA quantitative technique. Each individual's data was collected in a pre-designed questionnaire including: vaccination date, sex, and age at the time of the study. The coverage rate of HBV vaccine was only 69.9%, being slightly higher among male children [72.1%] than female children [66.8%]. A total of 276 [54.8%] of the 504 children responded to the vaccine with anti-HBs antibody level >/= 10 mIU/ml, while 228 [45.2%] of the 504 children had non-protective anti-HBs antibodies levels [<10IU/ml]. Children of ages 3-5 years had the highest protective rate [63.6%], and the lowest protective rate was in the 9-10 years age group. This study revealed a low coverage rate of HBV vaccine and a low protective rate against HBV infection. A considerable proportion of vaccinated children should be considered for either revaccination or booster doses. There is also the need to complete HBV vaccine coverage among the child population in Sana'a, Yemen.

Hirschsprung Disease

diagnosis

Hirschsprung's disease scientific update.
Mandhan, Prakash
Sultan Qaboos University Hospital - Department of Surgery
SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 138-145 (17 ref.)
Keywords: Early Diagnosis; Primary Health Care; Infant, Premature; Parturition
Hospital Mortality

Regional variability in hospital mortality in patients hospitalized with ST-segment elevation myocardial infarction: findings from the gulf registry of acute coronary events.
Thalib, Lukman; Zubaid, Mohammad; Rashed, Wafa; Almahmeed, Wael; Al Lawati, Jawad; Sulaiman, Kadhim; Al Motarreb, Ahmed; Amin, Haitham; Al Suwaidi, Jassim; Alhabi, Khalid F.
Kuwait University - Faculty of Medicine - Health Sciences Centre
Medical Principles and Practice 2011; 20 (3): 225-230 (23 ref.)
Keywords: Acute Coronary Syndrome-mortality; Registries; Gender Identity; Heart Conduction System
Abstract: To study the short-term mortality from ST-segment elevation myocardial infarction [STEMI] in the Arabian Gulf region of the Middle East, and to examine whether these geographically and culturally related countries had similar or different outcomes. The Gulf Registry of Acute Coronary Events recruited consecutive acute coronary syndrome patients from six Middle Eastern countries over a 5-month period. Of 6,706 patients recruited, 2,626 [39%] had STEMI, and a total of 165 patients died in hospital, with a crude mortality rate of 6.3%. However, mortality rates varied geographically between 10% in Yemen, 9.6% in Oman and 3.3% in the other countries. The unadjusted odds ratio of mortality for Yemen was 3.2 [95% CI: 2.2-4.7], and 3.1 [95% CI: 1.9-4.8] for Oman, compared to other Gulf countries. Even after adjusting for age and gender, the mortality remained significantly higher, almost double, in Oman and Yemen compared to other countries. This could be understood in the light of significant differences in a number of practice pattern variables such as reperfusion therapy, timely presentation and use of evidence-based medications. We found significant variability in STEMI mortality among Gulf Arab countries and identified areas requiring further efforts to reduce excess mortality in the region.

Humeral Fractures

surgery

Supracondylar humerus fractures outcome of open reduction and percutaneous crossed pin fixation.
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Independent Medical College
Keywords: Fracture Fixation; Bone Nails; Treatment Outcome; Prospective Studies
Abstract: Displaced Supracondylar fractures of the humerus in children are common injuries treated by orthopaedic surgeons. To evaluate the role of open reduction and percutaneous crossed pin fixation in displayed supracondylar fractures and to design a simple and effective protocol for the treatment of these fractures. Prospective. Independent Medical College Independent University Hospital Faisalabad. From January 2009 to June 2010. Fifty six cases with grade II and grade III Gartland Supracondylar humeral fractures were treated with open reduction through postereomedial approach and percutaneous crossed pin fixation with Kirschner wire and followed up for a minimum period of 1 year. Patients were assessed on the basis of Flynn's criteria there were 41 Excellent and 12 good results. It is concluded that open reduction and percutaneous crossed pin fixation is a sound and effective treatment for displayed supracondylar fractures with several advantages but requires careful judgment on the part of surgeon to avoid complications.

Humerus

anatomy and histology

Supratrochlear foramen; study of humerus in north Indians.
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Department of Anatomy
Keywords: Humerus-radiography; Humeral Fractures-surgery
Abstract: The knowledge of the presence of STF in a humerus may be important for preoperative planning for treatment of supracondylar fractures. Focused on the STF which is an important variation in the distal end of the humerus. The material consisted of 100 humeri of known sex taken from the Department of Anatomy, Sri Guru Ram Das Institute of Medical Sciences and Research, Amritsar. 36 pairs of male humeri and 14 pairs of female humeri were taken. The supracondylar foramen is seen in 26% of total humeri. It was present more in the females as compared to
males and more frequently on the left side than on the right side. The translucent septum is found more frequently in the males than in females and more frequently on the right side than the left side. The anatomical knowledge of STF may be beneficial for anthropologists, orthopaedic surgeons, and radiologists in day-to-day clinical practice.

**Hydatidiform Mole**

**diagnosis**

Molar pregnancy presents as tubal ectopic pregnancy.

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**IJFS - International Journal of Fertility and Sterility** 2011; 4 (4): 184-186 (6 ref.)

**Keywords:** Pregnancy, Ectopic-diagnosis; Pregnancy, Tubal-diagnosis

**Abstract:** Hydatidiform moles are abnormal gestations characterized by the presence of hydropic changes affecting some or all of the placental villi. Hydatidiform moles arise as a result of the fertilization of an abnormal ovum. In this report, the patient was a 29 year old Asian woman who had induction of ovulation with letrozol. Since the majority of molar gestations arise within the uterine cavity thus the occurrence of a hydatidiform mole within ectopic gestational tissue is rare. It is important to differentiate a hydatidiform mole from a conventional ectopic pregnancy, particularly in infertile women who have a history of ovulation induction.

**Hyperopia**

Bilateral hypermetropia, myelinated retinal nerve fibers, and amblyopia.

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Armed Forces Hospital - Department of Ophthalmology


**Keywords:** Nerve Fibers, Myelinated; Retinal Neurons; Amblyopia

**Abstract:** A 14-year-old hyperopic female with poor vision in both eyes was evaluated for ophthalmic and systemic diseases. The patient had bilateral retinal fiber myelination and greater vision loss in the more hyperopic eye. This was a rare case of reverse Straatsma syndrome, the clinical presentation which may be accompanied with significant vision loss.

**Hypertension**

**blood**

**Serum magnesium and hypertension.**

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**Professional Medical Journal - Quarterly [The]** 2011; 18 (1): 139-141 (16 ref.)

**Keywords:** Magnesium-blood

**Abstract:** Despite advances in the prevention and treatment of hypertension over the past decade, hypertension remains an important public health challenge. Recent efforts to reduce the prevalence of hypertension have been focused on non-pharmacologic means, specifically diet. An increased intake of magnesium has been shown in some but not all studies to reduce blood pressure in patients with hypertension. Decreased Serum magnesium levels are associated with development of hypertension. This study was planned to investigate relation of serum magnesium with blood pressure in patients with mild uncomplicated hypertension. Study was conducted at LUMHS hospital Jamshoro and DHQ hospital charshadda for the period of six months. Fifty known cases of uncomplicated mild hypertensive patients were selected, same number of healthy controls were also examined. When results were summed up and test parameters were compared, it was seen that no significant differences were found in serum magnesium levels among both groups, when compared statistically. Finally we conclude that no relation of magnesium with hypertension was observed. Much more work on wide scale population may be needed to clarify the idea.
Hypertension, Pulmonary

An elderly man with pulmonary hypertension.
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Royal Hospital - Department of Cardiology
Annals of Thoracic Medicine 2011; 6 (1): 43-45 (8 ref.)
Keywords: Aged; Echocardiography; Echocardiography, Transesophageal; Cough; Dyspnea; Chest Pain; Hemoptysis

Hypoglycemia

Hypoglycemia; experience in diabetics.
Sandhu, Ghazanifar Ali; Akhthar, Saeed; Rana, Mohammad Mohsin; Rehman, Abedur; Bashir, M. Badar
Punjab Medical College
Keywords: Awareness; Health Education; Signs and Symptoms
Abstract: Hypoglycemic symptoms are a very common experience for diabetics ranging from an innocent increased appetite to dreadful unconsciousness. This study was designed to assess the patient's awareness about the symptoms, experience of individual symptoms and their ability to recognize and to respond accordingly. All diabetic patients were assessed for the awareness of different symptoms of hypoglycemia, their experience of individual symptoms in last six months and ability of the patient and family members to recognize and to respond accordingly to these symptoms on a prescribed proforma with the help of trained staff. We had 1260 new cases of DM during the study period with valid diagnosis and taking either sulphonylurea or Insulin who were enrolled in the study. 260 patients had no idea of the symptoms. 564 patients knew no more than three symptoms. Palpitation and sweating were the most commonly known 80% and experienced 65% symptoms. Hunger and epigastric discomfort were the next best known 73% and experienced 58% symptoms. Loss of consciousness was the next in the list in terms of knowledge 52% and experience 23%. Coldness of body 28%, severe weakness 24%, blurred vision 12%, abnormal behavior 12% and altered consciousness 6% were the next in the list of experience. Early morning headache, night terror and frequent awakening were the least known 3% and recognized1% symptoms. Abnormal behavior and altered consciousness were not known to any patient as a symptom. Of those who knew or experienced the symptoms, eating anything available was the most common response, only 35% responded by eating rapidly available food items like sugar, honey, candies, beverages, fruit juice or jams. 3% of patients even resorted to taking diet colas initially and only later took other food after waiting for some time. In the event of patient getting unconscious, 80% of the times attendants did not consider hypoglycemia initially at home at first such experience. Patient must be properly educated about these symptoms before prescribing these agents and shall be repeatedly evaluated at each visit. Failing to recognize early and mild symptoms may lead to a terrifying experience.

Hysterectomy

Hysterectomies; an audit at a tertiary care hospital.
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Keywords: Clinical Audit; Retrospective Studies
Abstract: To audit indications and histopathological diagnosis of hysterectomies performed at Muhammad Medical College hospital, Mirpurkhas. Retrospective study. Department of Obstetrics and Gynaecology and Department of Pathology, Muhammad Medical College Hospital, Mirpurkhas Sindh from January to December 2008. Data regarding symptoms and indications of hysterectomies performed during this year were collected from files and patient records. Histopathological reports of those patients were collected from department of pathology. The results were analyzed by percentages. A total of 145 hysterectomies were performed in 2008. Mean age of patients was 45years ranging from 35-60 years and parity ranges from 4 - 10. Most common presenting complaints were excessive menstrual blood loss in 97(67%) patients, followed by something coming out of vagina 28(19%). Most common pre-operative diagnosis of fibroid was made in 44 [33%] followed by uterovaginal prolapse in 28[19%] and dysfunctional uterine bleeding [DUB] in 18[12%] of patients. Regarding histopathological diagnosis chronic cervicitis was the most commonly diagnosed pathology in 45 [31%] followed by fibroid in 25[17%] cases. A yearly audit should be conducted in every institute to collect data and to analyze the pattern of indication and lesions found on histopathological examination.
Immune Reconstitution Inflammatory Syndrome

Unmasking immune reconstitution inflammatory syndrome [IRIS] A report of five cases and review of the literature.
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SQUUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 95-103 (103 ref.)
Keywords: Antiretroviral Therapy, Highly Active-adverse effects; AIDS-Related Opportunist ic Infections; Review Literature as Topic; HIV Infections-drug therapy; Inflammation-chemically induced
Abstract: Immune reconstitution inflammatory syndromes [IRIS] in patients with acquired immune deficiency syndrome [AIDS] are characterised by atypical manifestations of opportunistic pathogens. These occur in patients experiencing improvement in CD4 cell counts following receipt of highly active anti-retroviral therapy [HAART]. Although well established as a syndrome, IRIS still presents challenges in diagnosis and management. We report five cases of IRIS with diverse clinical presentations and due to different infectious aetiologies. A review of the published literature on this syndrome is also included.

Infection Control

[Performance of the operating room personnel in following of the standards of infection control in the educational hospitals of Yasuj university of medical sciences in 2009].
Rostaminejad, A.; Mobaraki, A.; Zahmatkeshan, N.
Yasuj University of Medical Sciences - Paramedical School - Department of Anesthesia
Armaghan e - danesh 2011; 16 (1): 90-99 (11 ref.)
Keywords: Operating Rooms-manpower; Hospitals, University; Cross-Sectional Studies; Cross Infection
Abstract: Surgical wound infection is one of the common nosocomial infections. During operation, members of the surgical team which are in contact with the tissue incision should observe the standards of infection control in the operating room since it has a great role in prevention and control of these infections. The present study aimed to determine the performance of the operating room personnel in observing the standards of infection control in educational hospitals of Yasuj University of Medical Sciences in 2009. Forty two operating room personnel participated in this cross-sectional analytic-descriptive study. A check list was used for unnoticeably collecting the data about the performance of personnel in respect of infection control standards at three different times. Their performances were classified into four levels [very weak, weak, moderate and good] and the results were shown as absolute and relative frequency distribution. Data were analyzed using Chi-square and Fischer exact test by the SPSS software. Performance of personnel in following the standards of infection control in this study was moderate. The results indicate that the participants of the study do not follow some of the standards of infection control in the operating rooms. Therefore, further activities of the committees of infection control and using of new antiseptic for surgical scrub are recommended.

Infertility

etiology

Infertility in Mazandaran province - north of Iran: an etiological study.
Malekshah, Abbasali Karimpour; Moghaddam, Amir Esmailnejad; Moslemizadeh, Narged; Peivandi, Sepideh; Barzegarnejad, Ayyub; Musanjad, Nadali; Jursarayee, Gholamali
Mazandaran University of Medical Sciences - Imam University Hospital - Department of Embryology
Keywords: Infertility-diagnosis; Infertility, Male-etiology; Infertility, Female-etiology; Risk Factors
Abstract: The prevalence and etiology of infertility are not similar in different parts of the world. There are only few reports of this topic in Iran. This study was conducted to determine the clinical patterns and major causes of infertility in Mazandaran province in north of Iran. The medical records of 3734 consecutive couples attending two infertility clinics in Mazandaran province, from 2003 to 2008, were reviewed. The couples had not had a viable birth after at least 1 year of unprotected intercourse and were fully investigated. Of the entire samples, 78.7% had primary infertility and 21.3% had secondary infertility. The mean duration of infertility in couples was 5.7 +/- 4 years. The etiology of infertility in couples revealed; male factor in 38.9%, female factor in 34.7%, combined factors in 14.6% and undetermined cause in 11.8%. In this study, delayed attendance of infertile couples to the infertility clinic was found. Therefore, there is a need to revise public health program on infertility to focus on the education and prevention of infertility and its risk factors.
Infertility, Male

etiology

How does lead induce male infertility?.
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National Institute of Occupational Safety and Health - Department of Hazard Evaluation and Epidemiology Research
Iranian Journal of Reproductive Medicine 2011; 9 (1): 1-8 (87 ref.)
Keywords: Lead-toxicity; Lead-blood; Lead-adverse effects; Spermatogenesis; Occupational Exposure; Testosterone; Reactive Oxygen Species
Abstract: An important part of male infertility of unknown etiology may be attributed to various environmental and occupational exposures to toxic substances, such as lead. The reproductive effects of lead are complex and appear to involve multiple pathways, not all of which are fully understood. It is still unclear, for example, if male reproductive issues in lead-exposed persons are mostly related to the disruption of reproductive hormones, whether the problems are due to the lead's direct effects on the gonads, or both? This question has been difficult to answer, because lead, especially at high levels, may adversely affect many human organs. Although lead can potentially reduce male fertility by decreasing sperm count and motility, inducing abnormal morphology and affecting functional parameters; not all studies have been able to clearly demonstrate such findings. In addition, research has shown that the blood-testis barrier can protect testicular cells from direct exposure to high levels of blood lead. For these reasons and considering the wide spectrum of lead toxicity on reproductive hormones, the present review suggests that lead's main influence on male reproduction probably occurs by altering the reproductive hormonal axis and the hormonal control on spermatogenesis, rather than by a direct toxic effect on the seminiferous tubules of the testes. As blood lead concentrations below the currently accepted worker protection standard may still adversely affect male fertility, future studies should aim to establish more concrete links between lead exposure [especially at low levels] and subsequent male infertility. Research should also pay more attention to lead's effects on reducing male fertility rates based on not only hormonal axis alteration, but also on the changes in sperm characteristic among exposed subjects.

Intrauterine Devices

Efficacy of levonorgestrel intrauterine system [LNG-IUS] for abnormal uterine bleeding and contraception.
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Shifa College of Medicine - Department of Obstetrics and Gynaecology
JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 210-213 (21 ref.)
Keywords: Levonorgestrel-administration and dosage; Uterine Hemorrhage-drug therapy; Contraceptive Agents, Female; Menorrhagia-drug therapy; Treatment Outcome
Abstract: To find out clinical response, side effects and patients’ acceptability of levonorgestrel-releasing intrauterine system [LNG-IUS]. Observational study. Gynaecology Department of Shifa International Hospital, Islamabad, from June 2005 to May 2008. Adult women were enrolled in the study. In group-A, 57 married women were enrolled presented with abnormal uterine bleeding while in group-B, 16 married women attended for contraception. All women in group-A had thyroid stimulating hormone, pelvic ultrasound and outpatient endometrial biopsy. Detailed counselling was done before insertion. Outcome variables were improvement in bleeding pattern, safety profile, spontaneous expulsion rate and continuation at the end of one year. In group-A [abnormal bleeding] menstrual cycle became normal in 40.4% women in the first 3 months. At the end of one year, 50.9% women experienced normal cycle, 8.8% were oligomenorrhea and 12.3% were amenorrhea. In group-B [contraceptive group] all women started with normal cycles. At the end of 3 months 42% complained of vaginal spotting which reduced to 10% at the end of one year. Menstrual pattern at the end of one year showed normal cycles in 52%, oligomenorrhoea in 19% and amenorrhoea in 10% women. Vaginal spotting was experienced by 42% women at 3 months as main complaint which reduced to 10% at the end of one year, however, 7% women requested for removal of device at one year. LNG-IUS is an effective and acceptable treatment for abnormal uterine bleeding as well as for contraception. Vaginal spotting was the most frequent side effect experienced by both groups.
Isoproterenol toxicity

Protective effect of Ginkgo biloba against experimental cardiotoxicity induced by isoproterenol in adult male albino rats: a histological and biochemical study.
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Egyptian Journal of Histology [The] 2010; 33 (4): 735-744 (45 ref.)

Keywords: Sympathomimetics; Heart-ultrastructure; Microscopy, Electron; Cardiotonic Agents; Ginkgo Biloba; Plant Extracts-therapeutic use; Treatment Outcome; Creatine Kinase-blood; Antioxidants

Abstract: The present study was designed to investigate whether Ginkgo biloba [GB] might protect the heart against myocardial injury induced by isoproterenol [ISO] on the basis of its effects on biochemical and histological parameters. Twenty four adult male albino rats [180-200 g] were used in this study. They were divided into 4 equal groups of six rats each. Group I was the control group and group II received ISO [85 mg/kg body weight [bw], subcutaneously [S.C.] for two consecutive days to induce myocardial injury. Group III received GB [200 mg/kg bw] orally by gastric gavage daily for 21 days while group IV received GB [200 mg/kg bw] orally daily for 21 days in addition to ISO [85 mg/kg bw], S.C. on the 20th and 21st day from starting GB. After 24 hours, rats were sacrificed and the levels of cardiac marker enzymes [creatine kinase-CK] and its myocardial isoenzyme [CK-MB]] were assessed in serum. Heart specimens were processed for light and electron microscopic examination. Administration of GB before ISO significantly prevented ISO-induced elevation of serum cardiac marker enzymes. Light and electron microscopic findings of the heart pretreated with GB revealed a well preserved normal morphology of cardiac muscle with minimal evidence of myocardial injury when compared to ISO-treated hearts. This study demonstrated that GB had a significant effect in the protection of heart against myocardial injury induced by ISO. This beneficial effect was mostly related to its antioxidant property. The results of the present investigation may trigger an interest towards the use of GB in myocardial infarction.

Keratoconjunctivitis

Ocular surface squamous neoplasia masquerading as superior limbic keratoconjunctivitis.
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Keywords: Eye Neoplasms; Neoplasms, Squamous Cell; Carcinoma in Situ

Abstract: To report a case of ocular surface squamous neoplasia [OSSN] masquerading as superior limbic keratoconjunctivitis [SLK]. A 62-year-old woman was referred with foreign body sensation, irritation, photophobia and decreased vision in the left eye. She was initially treated for 10 months with intermittent topical corticosteroids for a presumed diagnosis of SLK. She underwent excisional biopsy of the superior conjunctiva and was found, on histopathologic evaluation, to have OSSN with moderate to marked dysplasia. This is the first reported case of OSSN masquerading with signs and symptoms of SLK. Any ocular surface lesion refractory to standard medical treatment should raise suspicion for a malignant process and warrant further cytologic or histopathologic evaluation.

Keratoconus genetics

The genetics of keratoconus.
Nowak, Dorota M.; Gajecka, Marzena
Institute of Human Genetics

Abstract: Keratoconus [KTCN] is non-inflammatory thinning and anterior protrusion of the cornea that results in steepening and distortion of the cornea, altered refractive error, and decreased vision. Keratoconus is a complex condition of multifactorial etiology. Both genetic and environmental factors are associated with KTCN. Evidence of genetic etiology includes familial inheritance, discordance between dizygotic twins, and association with other known genetic disorders. Several loci responsible for a familial form of KTCN have been mapped; however, no mutations in any genes have been identified for any of these loci. This article focuses on the genetic aspects. In addition, bioinformatics methods applied in KTCN gene identification process are discussed.
Kidney Cortex

growth and development

Postnatal development of the albino rat renal cortex [histological study].
El gammal, Abdel Rahman A.; Ibrahim, Osama Y.; Shaban, Sahar F.; Dessouky, Arigue A.
Zagazig University - Faculty of Medicine - Department of Histology and Cell Biology

Keywords: Kidney Cortex-ultrastructure; Microscopy; Electron; Rats; Animals, newborn

Abstract: Renal development involves 2 basic processes: morphologic formation and acquisition of function. The aim of the present study was to obtain histological information about the postnatal development of the filtration barrier and to throw more light upon the concomitant developmental changes of the convoluted tubules in albino rat's renal cortex. Ten pregnant female rats were utilized. Fifteen of their offsprings were taken and divided into 3 groups: Group A: studied at the 2[nd] day postnatal. Group B: studied at the 10[th] day postnatal. Group C: studied at the 21[st] day postnatal. Kidneys were removed then 5 micro m thick paraffin sections were obtained and stained with haematoxylin and eosin stain for light microscope study. Renal cortex was cut into minute pieces and prepared for electron microscope study. Light microscope examination of 2 days renal cortex exhibited two cortical zones. The subcapsular zone contained immature forms of the renal developmental stages; the juxtamedullary zone contained mature renal corporuses. While, electron microscope examination showed podocytes with flat cytoplasmic sheets and foot processes. Endothelial cells had few fenestrations. The filtration barriers revealed double basement membrane. The lining cells of proximal tubules had few short apical microvilli, mitochondria randomly oriented and few basal infoldings. Also, those of distal convoluted tubules appeared with randomly oriented mitochondria and some basal infoldings. The light microscope examination showed podocytes with its primary processes and foot processes. The endothelial cells showed numerous fenestrations. The filtration barriers revealed fused basement membranes with presence of outpockets. The lining cells of proximal tubules had numerous tall tightly packed apical microvilli. Mitochondria appeared lodged in the basal infoldings in both proximal and distal tubules. The light microscope examination of 21 days renal cortex revealed mature renal corporuses with lobulated glomeruli. Electron microscope examination demonstrated mature glomeruli showing podocytes with numerous foot processes. The filtration barrier showed regular basement membrane with no outpockets. The endothelial cells appeared attenuated with numerous fenestrations. Proximal and distal tubules showed mature picture. It has been proposed that adult renal diseases may be determined by events that occurred during fetal development. Therefore, results of studies on renal development in experimental models need to be interpreted and correlated carefully with the concomitant functional changes.

Kidney Function Tests

Indicators of renal glomerular and tubular functions in patients with beta-thalassaemia major.
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Royal Hospital - Departments of Chemical Pathology
SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 69-76 (36 ref.)

Keywords: Blood Transfusion-adverse effects; Kidney Diseases-physiopathology; Kidney Tubules-physiopathology; Iron Overload-complications; Cross-Sectional Studies

Abstract: There are limited data concerning the assessment of renal function in beta-thalassaemia major, with no study of such involvement in Omani patients. The objective of this study was to establish the pattern of renal glomerular and tubular function using traditional and specific laboratory tests in patients with beta-thalassaemia major. This cross-sectional study, from January-July 2008, included 30 patients of the Thalassaemia Clinic at the Royal Hospital, Oman, with transfusion-dependent homozygous beta-thalassaemia major. They included 15 males and 15 females, aged 16-32 years with mean +/- standard deviation of 21.23 +/- 3.42 years. The medical records were reviewed and renal function states assessed as follows: serum creatinine, estimated glomerular filtration rate [eGFR]; urea; phosphate, fractional excretion of filtered sodium [FENa]; urine albumin: creatinine index; urine beta2-microglobulin:creatinine index; tubular reabsorption of phosphate [TRP], and tubular maximum phosphate reabsorption [TmP]/GFR. All patients had eGFR >90 ml/min/1.73m2; serum creatinine <90 micro mol/L; serum urea <6.0 mmol/L, and urine albumin: creatinine <2.5 mg/mmol. Only 2 [6.7%] patients had FENa >1% and 3 [10.0%] patients had urine s2-microglobulin:creatinine >22 micro g/mmol. All patients had TRP >0.85, of whom seven [23.3%] patients had values within the range of 0.85-0.95 and 23 [76.7%] had values >0.95. Also, all patients had TmP/GFR >1.0 mmol/L, of whom only one [3.3%] patient had TmP/GFR of 1.0-1.5, and 29 [96.7%] patients had TmP/GFR >1.5 mmol/L. Finally, 24 [80%] patients had serum phosphate >1.4 mmol/L. Linear regression revealed a highly significant correlation between serum phosphate and TmP/GFR [r = 0.904, P < 0.001]. Renal function, glomerular and tubular, appears to be well preserved in beta-thalassaemia major. Almost all renal function indicators were within the recommended ranges. Raised TmP/GFR and TRP were noted in the majority of patients, reflecting an up-trend in serum phosphate and therefore increasing renal phosphate reabsorption.
Kidney Neoplasms

Role of multislice CT in diagnosis of parenchymal renal masses.
El Hady, Hosam E.A.; Badran, Yousef M.; El Kappny, Hamdy A.E.; El Diasty, Tarek M.; El Aziz, Samy A.
Assiut University - Faculty of Medicine - Department of Diagnostic Radiology
Assiut Medical Journal 2010; 34 (3): 27-42 (17 ref.)
Keywords: Tomography, X-Ray Computed; Kidney Neoplasms-pathology
Abstract: The challenges of renal tumoral imaging include not only reliable differentiation between benign and malignant lesions but also accurate delineation of the extent of the disease to ensure optimal treatment planning. The aim of this study is to evaluate the role of multiphasic multidetector CT in characterization of parenchymal renal masses and identify the role and accuracy of MDCT in detection and surgical planning of renal masses as one single modality, using the state of art of CT. The study included 20 patients out of 120 patients with parenchymal renal masses underwent MDCT with single holus technique and four phases including unenhanced phase, arterial phase, nephrographic phase and excretory phase. According to MDCT findings we can classify renal masses into: 14 malignant renal masses [10 renal cell carcinoma RCC and 4 Wilms's tumor] and 6 benign renal masses [2 angiomylipoma AML, 2 xanthoglersulonelonephritis 2 renal abscesses,]. MDCT imaging can differentiate between different types of parenchymal renal masses.

Lacrimal Apparatus Diseases

67-year-old male with right eye discharge.
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Wills Eye Institute
Keywords: Diagnosis, Differential; Dacryocystitis-diagnosis

Lactones

Structural changes of the colonic mucosa induced by orlistat experimental study.
Nairooz, Samir; Ibrahim, Suzi H.; Omar, Sahar M.M.; Affan, Mohammad
Ain Shams University - Faculty of Medicine - Department of Histology
Keywords: Colon-pathology; Proliferating Cell Nuclear Antigen; Immunohistochemistry; Rats; Dietary Fats; Risk Factors
Abstract: Orlistat, an anti-obesity drug, is a lipase inhibitor which increases fecal fat excretion. Many workers had reported the harmful consequences of increased fecal fat excretion on colonic mucosa. So the present study was designed to evaluate the effect of Orlistat in presence of other risk factors [directly related to colon carcinogenesis] as high fat diet and colon carcinogen di-methyl hydrazine on the structure of rat colonic mucosa and cell proliferation evaluated by the PCNA index. The study included 50 male albino rats, which were divided into 5 equal groups. Group I served as a control group. Group II received high fat diet alone. Group III received high fat diet and Orlistat [32 mg/kg] orally for 5 weeks. Group IV were subcutaneously injected by two doses of the carcinogen di-methyl hydrazine [DMH] [25mg/kg] together with high fat diet. While rats of group V received Orlistat, di-methyl hydrazine [DMH] and high fat diet. Histological examination of the colonic mucosa revealed presence of 3 types of structurally-altered crypts. The first type appeared with dilated lumen [typical aberrant crypt]. This type was significantly recognized in group II and III. However, insignificant difference in incidence of aberrant crypts and cell proliferation evaluated by PCNA index was encountered between group II and III. The second type of crypt alteration [hyperplastic aberrant crypt], appeared having a serrated luminal configuration, distended goblet cells and proliferating epithelial foci that might partially or totally occluded the lumen. The third type [dysplastic aberrant crypt] exhibited few goblet cells and/or crowded nuclei.
with variability in their shape and increase in their length together with frequent mitotic figures. Significant increase in number of hyperplastic and dysplastic aberrant crypts as well as PCNA index was detected in group V compared to group IV, determining the potentiating effect of Orlistat. Long-term use of Orlistat in presence of risk factors, as high fat diet and other predisposing factor for cancer colon, was associated with severe crypt alterations and enhancement of colonic proliferative capacity, putative biomarkers of colon cancer.

Laparotomy

methods

Elective midline laparotomy; comparison of diathermy and scalpel incisions.
Siraj, Arsalan; Dar, Muhammad Farooq; Gilani, Athar Abbas Shah; Raziq, Sohail
Department of Surgery
Keywords: Diathermy; Prospective Studies; Treatment Outcome; Postoperative Complications
Abstract: To compare the diathermy incision with scalpel incision in patients undergoing midline elective laparotomy. Aprospective, experimental comparative study. Department of surgery, PNS Shifa Karachi, from March 2007 to June 2008. A total of 100 patients were included in the study, and equally divided into 2 groups. Group A received scalpel incision while in group B diathermy was employed to incise all layers. Peroperative parameters including, incision time and blood loss were calculated. Postoperatively, pain was assessed by visual analogue score and wound infection documented. Both groups included fifty patients each out of the total 44 females and 56 were males, with similar gender preposition in both the groups. Mean age of patients in scalpel group was 48.78 [+/- 14.47] while it was 44.92 [+/- 15.87] in diathermy group. The mean incision related blood loss in Scalpel 2 2 group was 1.53 [+/- 0.20] ml/cm and in Diathermy group was 1.43 [+/- 0.20] ml/cm, showing significantly less bleeding in diathermy group [p=2 2 value= 0.014]. Diathermy group, with incision related time of 6.20 sec/cm [+/- 0.97 sec/cm], was significantly quicker [p-value= 0.003] than 2 2 scalpel incision, with incision time of 6.76 sec/cm [+/- 0.84 sec/cm]. Postoperative pain scores, recorded daily over five days, showed insignificant difference between the two groups. Diathermy, employed for midline laparotomy, is quicker and hemostatic, compared to the scalpel. The two are, however, similar in terms of wound infection and postoperative pain.

Lead

toxicity

Histological study on the effect of low level perinatal lead exposure on the cerebellar cortex of adult male albino rat.
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Assiut University - Faculty of Medicine - Histology Department
Keywords: Cerebellum-pathology; Histology; Cerebellum-ultrastructure; Microscopy, Electron; Pregnancy, Animal; Rats; Animal, Newborn; Lead-analysis
Abstract: Lead contaminating drinking water is most often a problem in houses. As the nervous system is the primary target for the low levels of lead exposure, more attention has been directed towards lead poisoning. To determine the toxic effect of chronic low level of lead acetate on the histological structure of the cerebellar cortex of adult male albino rats. A total number of 5 pregnant albino rats were used. Lead exposure was initiated on gestation day 6 with the addition of daily doses of 0.2% lead acetate to distilled deionized drinking water and lasted until weaning. Half of the weaned male offspring were maintained on lead treated water supply until the age of two months [treated]. The remaining half received distilled deionized water until the age of 2 months [withdrawal]. Control animals received distilled deionized water. Specimens from the cerebellar cortex were processed for examination by light and electron microscope. Lead level in blood, urine and cerebellar tissue was estimated by spectrophotometry. In lead exposed rats, Purkinje cells, oligodendrocytes and Golgi cells were affected. The number of Purkinje cells decreased. The myelinated axons showed vacuoles. Blood capillaries were affected. Lead level in blood and cerebellar tissue was high. In the withdrawal group, some Purkinje cells revealed partial recovery while others showed more progress in degeneration. Chronic low level perinatal lead exposure had toxic effect on the cerebellar cortex of adult male albino rat mild regression was revealed after lead cessation.
Leukemia, Prolymphocytic, T-Cell

T-cell prolymphocytic leukemia presenting as red eye.
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Keywords: Conjunctivitis
Abstract: T-cell prolymphocytic leukemia [T-PLL] is a rare, highly aggressive, mature T-cell neoplasm. Ocular involvement in T-PLL is very rarely described in the literature. There are only two reports in the literature documenting conjunctival involvement in cases with T-PLL. Conjunctival involvement may be the presenting sign of the disease or rarely signifies the relapse of the disease. We present a case of a 38-year-old Saudi male patient in whom bilateral red eyes were the presenting sign of T-PLL.

Listeriosis

diagnosis

Listeria peritonitis; common presentation of an uncommon organism.
Aziz, Fahad; Dodi, Sujatha; Penupolu, Sudheer; Grigoriu, Adriana
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Mount Sinai School of Medicine - Department of Internal Medicine
Keywords: Listeria monocytogenes; Peritonitis-diagnosis; Peritonitis-microbiology
Abstract: One case of spontaneous bacterial peritonitis [SBP] caused by Listeria monocytogenes in cirrhotic patients is reported. In our case, the listeria was isolated from ascites from the ascitic fluid. SBP is a serious and common complication of patients with ascites caused by hepatic cirrhosis and the culture of the ascitic fluid is an important tool for the diagnosis and for the more appropriate treatment. Although a third generation cephalosporin has usually been employed for empiric treatment of SBP, it does not provide adequate coverage against Listeria spp. In such cases the use of ampicillin [with or without sulbactam] or sulfamethoxazole-trimethoprim is recommended. The sulfamethoxazole trimethoprim is used for secondary prophylaxis, instead of norfloxacin. To summarize, Listeria monocytogenes infection is a rare cause of SBP, whose treatment should be specific for the bacteria.

Liver Cirrhosis, Experimental

Histological and immunohistochemical study on rat spleen in experimentally induced liver cirrhosis.
Radwan, Dina M.; Amin, Hanan A.; Kamel, Ashraf M.F.
Cairo University - Faculty of Medicine - Histology Department
Egyptian Journal of Histology [The] 2010; 33 (4): 709-721 (57 ref.)
Keywords: Rats; Spleen-pathology; Histology; Immunohistochemistry
Abstract: The present study aimed to examine the histological changes in the spleen of rats with liver cirrhosis, and to determine the immunohistochemical expression of endothelial nitric oxide synthase [e-NOS], and its upstream effectors; tumor necrosis factor [TNF-alpha] and vascular endothelial growth factor [VEGF]. Twenty male adult albino rats were divided into two equal groups. The first was control. In the second group, liver cirrhosis was induced by intraperitoneal [ip] injection of thioacetamide 200 mg/kg twice weekly for 12 weeks. Splenic index [spleen weight / body weight] was determined and the spleens of rats which developed liver cirrhosis were subjected to the following stains: hematoxylin and eosin [H and E], silver impregnation, and immunostaining with specific antibodies for e-NOS, TNF-alpha and VEGF. Quantitative assessments were carried out using image analyzer with statistical analysis of the results. Splenic sections of cirrhotic rats showed in addition to congestion of venous sinuses, significant increase in reticular fibers in capsule and trabeculae as well as throughout the red pulp. The percentages of red pulp and fibrous trabeculae areas were significantly higher in cirrhotic rats, while the percentage of the white pulp areas was significantly smaller. Immunohistochemical staining of both e-NOS and TNF-alpha in spleen sections of group II rats were significantly lower than control, while VEGF immunostaining was significantly higher. Splenomegaly in liver cirrhosis was not only congestive but there was also significant increase of reticular fibers, red pulp area and angiogenesis. Moreover, nitric oxide [NO] reduction resulting from suppression of e-NOS and TNF-alpha seen in this study contributed to the increased volume of the spleen.
**Lower Extremity**

**blood supply**

**Efficacy of preoperative duplex scanning in planning for infrainguinal revascularization procedures.**
Bakr, Ahmed H.; Thabet, Bahgat A.; Elsharkawy, Mostafa A.; Khalil, Mostafa S.; Cieri, Enrico
Assiut University Hospital - Department Vascular surgery
Assiut Medical Journal 2010; 34 (3): 9-18 (26 ref.)

**Keywords:** Angiography; Ultrasonography, Doppler Duplex; Femoral Artery; Popliteal Artery

**Abstract:** To evaluate safety and efficacy of preoperative duplex scanning in planning for infrainguinal revascularization procedures. Thirty patients [mean age 70 years] underwent elective DSA of lower extremity arteries at the Vascular and Endovascular Surgery unit of Perugia, Italy and were included in the study. Duplex evaluation of arterial lesions was performed for the site and degree of severity. Results were compared with DSA serving as the standard reference. Our study showed that duplex was able to determine significant lesions [either critical stenosis or occluded segments] in the femoral region with an overall sensitivity and specificity of 96.5% and 93.3% respectively and 77.7% and 99.1% as the positive predictive and negative predictive values respectively. At the popliteal region, we estimated the sensitivity and specificity as 84% and 89.2% respectively and 75% and 93.5% as the positive and negative predictive values. The overall accuracy measurements of duplex scanning at the region of leg vessels were 82.9%, and 89.4% for combined anterior and posterior tibial arteries. It seems feasible to perform infrainguinal arterial reconstructions, without preoperative angiography. Technical limitations of duplex scanning leading to inaccurate assessment of the inflow and outflow arteries, or non-visualized distal runoff arteries, should prompt angiographic evaluation.

**Malaria, Falciparum**

**drug therapy**

**Falciparum malaria; comparison of response to treatment between quinine and artemether.**
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PAF Hospital

**Keywords:** Quinine-therapeutic use; Artemisinins-therapeutic use; Treatment Outcome

**Abstract:** Quinine and quinidines remain the drugs of choice for chloroquine resistant Plasmodium falciparum malaria. In 1972, Chinese scientists discovered the antimalarial properties of a group of compounds from the qinghao plant [Artemisia annua] which have activity against all malaria causing parasites including multi-drug resistant strains of Plasmodium falciparum. To compare response to treatment between quinine and artemether in Plasmodium falciparum malaria. Quasi-experimental study. Department of Medicine Pakistan Air Force Hospital Lahore. 1st Jun 2008 to 1st Dec 2009. 80 consecutive adult patients with positive MP slide for Plasmodium falciparum malaria. Patients were randomly divided into two groups for treatment either with quinine or artemether. Out of total 80 patients, 40 were given quinine and 40 were given artemether. Out of 40, 16 patients responded to quinine while 24 did not respond. The responders were 34.8% in case of quinine while 65.2% patients did not respond. Out of 40 patients treated with artemether, 30 responded while 10 did not. The responders were 65.2%while non responders were 29.4%. On calculating the P-value from the chi-square it was found that difference in terms of response to the two treatment regimens was statistically significant.[P=.0022]. The frequency of response in case of quinine was 34.8% while it was 65.2% in case of artemether. So based upon statistically significant difference [P=.0022] it is concluded that Artemether is a satisfactory alternative to Quinine for the treatment of falciparum malaria in adults.

**Mastoiditis**

**complications**

**Mastoiditis causing sinus thrombosis and posterior fossa epidural haematoma: Case report.**
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SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 108-111 (25 ref.)
Keywords: Hematoma, Epidural, Cranial-etiopathy; Cranial Fossa, Posterior-pathology; Sinus Thrombosis, Intracranial-etiopathy
Abstract: Spontaneously occurring epidural haematomas are an uncommon entity. A spontaneous post fossa epidural haematoma due to sigmoid sinus thrombosis secondary to mastoiditis has not been reported in English medical literature. We report a 40 year-old man who presented to us with headache and incoordination. A magnetic resonance imaging [MRI] confirmed epidural sub-acute bleeding in the right side of posterior fossa with mastoiditis and right sigmoid sinus thrombosis. A right suboccipital craniotomy and evacuation of the haematoma was done and the patient was relieved of his complains.

**Maxillofacial Prosthesis Implantation**

Rehabilitation of a large maxillo-facial defect using acrylic resin prosthesis.

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JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 254-256 (9 ref.)

Keywords: Carcinoma, Basal Cell-surgery; Reconstructive Surgical Procedures; Acrylic Resins; Prosthesis Design; Head and Neck Neoplasms-surgery
Abstract: Large facial defects require definitive surgical reconstruction. However, at times such reconstruction is not possible due to extensive loss of tissues that can not be corrected by surgery alone. In this case, prosthetic restoration of lost facial tissues was carried out. Introduction of newer material which gives life-like appearance to such prosthetic restoration e.g. silicone and poly-ether rubbers, and use of implants to retain these prosthesis have given a new dimension to rehabilitation of such patients. This report presents a case of prosthetic rehabilitation of extensive extra oral defect due to basal cell carcinoma of cheek, using acrylic resin material.

**Mediastinum abnormalities**


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Annals of Thoracic Medicine 2011; 6 (1): 11-16 (18 ref.)

Keywords: Mediastinal Neoplasms; Fluorodeoxyglucose F18-diagnostic use; Positron-Emission Tomography; Lymphatic Diseases; Lymph Nodes; Tuberculosis; Sarcoidosis; Lymphoma; Prospective Studies
Abstract: To determine the efficacy of integrated 18 F-fluorodeoxy glucose positron emission tomography-computed tomography [18 F-FDG PET-CT] in the evaluation and characterization of mediastinal lymph nodes into benign and malignant pathology. Thirty-five patients with mediastinal lymphadenopathies without primary neoplastic or infective lung pathologies were included in the study. The lymph nodes were detected on contrast-enhanced CT scan of the chest. All patients underwent 18 F-FDG PET-CT scan for evaluation of mediastinal lymph nodes. Results of PET-CT were compared with histopathology of the lymph nodes and sensitivity, specificity, positive predictive value, negative predictive value, and accuracy were calculated. Statistical Analysis: The data were collected prospectively and analyzed using [SPSS Inc., Chicago, IL] 11.5 software. Histopathology results in 35 patients revealed tuberculosis in 12, sarcoidosis in 8, and lymphoma in 15. Maximum standardized uptake value [SUVMax] of the benign lymph nodes ranged from 2.3 to 11.8 with a mean +/- standard deviation [SD] of 5.02 +/- 3.26. SUVMax of the malignant lymph nodes ranged from 2.4 to 34 with a mean +/- SD of 10.8 +/- 8.12. There was a statistically significant difference between benign and malignant pathology [P<0.0059]. 18 F-FDG PET-CT has sensitivity of 93% and specificity of 40% with SUVMax 2.5 as the cutoff. We found the optimal SUVMax cutoff to be 6.2 as determined by the receiver-operator characteristic curve. With 6.2 as cutoff, the sensitivity, specificity, and accuracy were 87%, 70%, and 77%, respectively. In countries where tuberculosis and other granulomatous diseases are endemic, SUVMax cutoff value of 2.5 has low specificity. Increasing the cutoff value can improve the specificity, while maintaining an acceptable sensitivity.
Melanosis

drug therapy

[Comparative efficacy of 2% hydroquinone and melfade in treatment of melasma].
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Armaghane - danesh 2011; 16 (1): 1-8 (23 ref.)

Keywords: Hydroquinones-therapeutic use; Treatment Outcome

Abstract: Melasma is an acquired hypermelanosis disease and can cause superficial problems in women if left untreated. The objective of this study was to compare the efficacy of 2% hydroquinone and Melfade in the treatment of Melasma. This is a randomized clinical trial study conducted at Kurdistan University of Medical Sciences in 2008. Sixty two women with Melasma disease were recruited and randomly assigned to two groups. Two percent hydroquinone was prescribed for the first group [n=31] and Melfade for the second group. After 12 weeks of daily drug consumption by the patients, they were examined by a dermatologist for assessment of recovery. The collected data was analyzed by the SPSS software. Response to treatment with hydroquinone and Melfadewas the same and no significant differences were found between the two groups. [P> 0.05] Results of this study demonstrated that topical Melfade is as effective as 2% hydquerine in treatment of Melasma, Therefore it can be considered as an alternative drug in the treatment of Melasma.

Menstrual Cycle

Effect of ovarian cyclic status on in vitro embryo production in cattle.
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Islamic Azad University - Faculty of Agriculture - Department of Animal Science
IJFS - International Journal of Fertility and Sterility 2011; 4 (4): 172-175 (18 ref.)

Keywords: Blastocyst; Cattle; In Vitro; Ovary; Follicular Phase; Luteal Phase
Abstract: The relationship between cyclic status of cattle ovaries on in vitro embryo development up to the blastocyst stage was investigated. Cattle ovaries were collected immediately after slaughter and divided into three categories based on their cyclic status, which included: 1. the presence of a large follicle [LF], 2. the presence of a corpus luteum [CL] and 3. ovaries without LF or CL [WLCF]. Oocytes of these ovaries were obtained and used for in vitro maturation and fertilization. Presumptive zygotes were then cultured up to the blastocyst stage in synthetic oviductal fluid culture medium. There were no significant differences between cleavage rates of the three groups. The rate of embryos in the compact morula stage for the CL group was 48.2% which was significantly higher than the related rate of the LF group [36.6%], but non-significantly higher than that of the ST group [45.7%]. The highest blastocyst rate belonged to the CL group [54.6%] which was significantly greater than the WLCF group [32.9%] and non-significantly higher than the LF group [52.4%]. There was no significant difference in blastocyst rates in the CL and LF groups. Preselection of oocyte donor ovaries containing a CL or LF can be used as a feasible and noninvasive criterion to obtain the most competent oocytes capable of development to the blastocyst stage.

Methicillin-Resistant Staphylococcus aureus

Trafficking of methicillin-resistant staphylococci and co-colonization with vancomycin-resistant enterococci.
Sharaf, Eman J.; Senok, Abiola C.; Udo, Edet E.; Botta, Giuseppe A.
Arabian Gulf University - Department of Microbiology, Immunology and Infectious Diseases

Medical Principles and Practice 2011; 20 (3): 253-258 (25 ref.)

Keywords: Vancomycin Resistance; Enterococcus-genetics; Cross Infection-microbiology; Drug Resistance, Microbial; Bacterial Proteins; Hospitalization; Length of Stay; Sex Factors; Genotype; Outcome Assessment (Health Care)

Abstract: To determine the trafficking of methicillin-resistant staphylococci between the hospital and community as well as the occurrence of co-colonization with vancomycin-resistant enterococci [VRE]. From November 2005 to April 2006, methicillin-resistant Staphylococcus aureus [MRSA] and methicillin-resistant coagulase-negative Staphylococcus [MRCoNS]-positive patients at the Salmaniya Medical Complex, Bahrain were assessed for VRE co-colonization. Characterization of vancomycin resistance genotype by PCR was carried out. Close family contacts were screened for MRSA and pulsed-field gel electrophoresis [PFGE] analysis of MRSA isolates from patient-family member pairs was conducted. One hundred and eighty-two patients [93 MRSA; 89 MRCoNS] and 356 family members were enrolled. Seven MRSA and 41 MRCoNS strains were isolated from the family members. PFGE analysis revealed the presence of variants of a single MRSA clone among patients and their relatives. A total of 112 patients [62 MRSA; 50 MRCoNS] provided stool for VRE screening. Of these 13 stool specimens [11.6%] were VRE-positive. All the VRE isolates were from MRSA-positive patients, thus positivity rate among MRSA patients was 20.9% [n/N = 13/62]. These were predominantly Enterococcus gallinarum with vanC1 genotype and one strain was Enterococcus faecium [vanB genotype]. Two E. gallinarum isolates harbored an additional vanB gene. The majority of VRE isolates were from patients in medical and surgical units [n/N = 10/13; 77%]. Male gender, prolonged hospitalization and presence of co-morbidities were significantly associated with MRSA/VRE co-colonization [p < 0.05]. MRSA/VRE co-colonization with MRSA trafficking between the hospital and community environment is a public health concern occurring in our setting.

Methotrexate

toxicity

Immunohistochemical and histopathological studies of effects of methotrexate on the pancreas of albino rats and the role of folic acid supplementation.
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Al-Azhar University - Faculty of Medicine for Girls - Anatomy Department
Assiut Medical Journal 2010; 34 (3): 195-208 (32 ref.)

Keywords: Pancreas-pathology; Histology; Immunohistochemistry; Protective Agents; Folic Acid; Treatment Outcome; Rats

Abstract: Methotrexate is an antimetabolite that is widely used for rheumatoid arthritis, psoriasis, autoimmune and inflammatory diseases. Even with the newer biological agents, methotrexate continues to serve as a reference point. However, its long-term clinical use is restricted due to its severe side effects and toxicity. A severe side effect of methotrexate may cause decrease or disruption of cancer chemotherapy. Therefore a better understanding of its histopathological mechanism is necessary to develop adapted curative strategies. Folic acid is a water-soluble B vitamin that is implicated in the synthesis of purines and pyrimidines, the essential precursors of DNA. The aim of this study is to investigate the toxic effect of methotrexate on the pancreas of adult female albino rats. It should be noted that there are relatively few studies that have addressed folic acid supplementation with the use of methotrexate on tissue which show a very active metabolic process such as pancreas. Therefore, the efficacy of folic acid against methotrexate induced exocrine and endocrine pancreatic cell injury was assessed. Rats were divided into four groups consisting of 10 rats in each group. Group 1, control group; group 2; the folic acid receiving group, group 3, the methotrexate-injected group and group 4, the methotrexate and the folic acid for 4 week. Tissues were removed while
the rats were under ether anesthesia. Pancreatic tissues were processed for histological examination and stained routinely with Haematoxylin and Eosin for observing general morphological changes. Sections of the pancreas were stained with Masson's trichrome to demonstrate the collagen fibres. Histochemical PAS stain was also performed for glycogen detection. In addition, immunohistochemical investigation of different groups was carried out. So, pancreatic tissues from different groups were studied using a monoclonal antibody to insulin. In the current study, microscopic examination of control group stained with H and E showed normal architecture of pancreas. No pathologic changes in the pancreatic islets and surrounding acini were detected in the folic acid group [group 2]. In contrast, the methotrexate-treated group showed that, acinar cell dissociation, marked vacuolation and congestion. There are broadly multiple cytoplasmic vacuoles of variable sizes in the exocrine pancreatic acinar cells. Moreover, Methotrexate induced damaging effects on pancreatic islets in rats as detected by immunohistochemistry. While administration of folic acid and methotrexate, the combination group [group 4] displayed regression of acinar cell and pancreatic islets toxicity. The present investigation proved that methotrexate should be used with caution for fear of pancreatitis. The methotrexate long-term therapy requires maintaining a slight balance between benefits and risks. It was concluded that folic acid might be beneficial in preventing methotrexate induced pancreatic injury. Therefore, folic acid supplementation may be a promise as a therapy policy for every patient who receives methotrexate. Further investigation should be carried out to identify the precise mechanism underlying the protective effects of folic acid as well as the clinical interference to reduce methotrexate induced damage in pancreatic tissue.

Methylprednisolone

pharmacology

Recurrent high-dose intravenous methylprednisolone succinate pulse therapy-induced hepatopathy in a patient with multiple sclerosis.
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Medical Principles and Practice 2011; 20 (3): 291-293 (10 ref.)

Keywords: Multiple Sclerosis-drug therapy; Liver Diseases-etiopathogenesis; Glucocorticoids-administration and dosage; Enzyme Induction-drug effects; Liver Function Tests; Follow-Up Studies

Abstract: We describe recurrent and reversible hepatopathy in a girl with multiple sclerosis [MS] after glucocorticoid pulse therapy, to point out the possibility that glucocorticoid may harm the liver. An 11-year-old girl with MS, who was treated with high-dose methylprednisolone succinate pulse therapy, developed elevation of liver enzymes. The episodes of hepatopathy occurred 1-5 weeks after the therapy and disappeared within several weeks. The examination for antinuclear antibody and viruses which can cause hepatitis produced negative results. The present case emphasizes the possible effects of high-dose glucocorticoids in the induction of liver enzymes and the importance of follow-up liver tests after pulse therapy.

Miosis

therapy

Management of intraoperative miosis during pediatric cataract surgery using healon 5.
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Keywords: Miosis-surgery; Cataract Extraction; Cataract-surgery; Intraoperative Care; Viscoelastic Substances; Hyaluronic Acid-therapeutic use; Child

Abstract: We describe a technique for achieving pupillary dilatation in order to manage and counteract intraoperative miosis during pediatric cataract surgery using viscoadaptive viscoelastic [sodium hyaluronate 2.3%]. The technique of viscomydriasis was used in six eyes with pediatric cataracts with intraoperative pupillary miosis. Pupillary dilatation was achieved and maintained in all eyes throughout cataract surgery. All the surgical steps including anterior and posterior capsulorhexis and aspiration were performed successfully. Viscomydriasis is a simple and effective technique for the management of intraoperative pupillary miosis during cataract surgery in pediatric eyes.
Mitomycin

therapeutic use

Preoperative subconjunctival injection of mitomycin C versus intraoperative topical application as an adjunctive treatment for surgical removal of primary pterygium.
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Keywords: Mitomycin-administration and dosage; Injections, Intraocular; Preoperative Care; Intraoperative Care; Pterygium-surgery

Abstract: To compare the efficacy of preoperative local injection of mitomycin C [MMC] to intraoperative application of MMC in the prevention of pterygium recurrence after surgical removal. Seventy eyes of 70 patients with primary pterygia were randomly allocated to two groups. The first group [Group A, 35 eyes] received 0.1 ml of 0.15 mg/ml of subconjunctival MMC injected into the head of the pterygium 24 h before surgical excision with the bare sclera technique. The second group [Group B 35 eyes] underwent surgical removal with the bare sclera technique with intraoperative application of MMC [0.15 mg/ml] over bare sclera for 3 min. The study was performed between March 2007 and December 2008, and follow up was performed for 1 year postoperatively. Differences between frequencies in both groups were compared by the Chi-square test or Fisher exact test. Differences between means in both groups were compared by Student's t-test. P < 0.05 was considered significant. The rate of pterygium recurrence was 5.70% in Group A and 8.57% in Group B at 1 year postoperatively [P>0.05]. Postoperatively, scleral thinning occurred in one eye in each group that resolved by 5 months postoperatively. No serious postoperative complications occurred in either group. Preoperative local injection of 0.15 mg/ml MMC is as effective as intraoperative topical application of 0.15 mg/ml MMC for preventing pterygium recurrence after surgical removal.

Models, Biological

Key uncertainty sources analysis of water quality model using the first order error method.
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Beijing Normal University - School of Environment

Keywords: Oxygen; Nitrogen; Water Supply; Water Pollution

Abstract: In this study, key uncertainty sources analysis was undertaken for a dynamic water model using a First order error analysis method. First, a dynamic water quality model for the Three Gorges Reservoir Regions was established using data after impoundment by the environmental fluid dynamics code model package. Model calibration and verification were then conducted using measured data collected during 2004 and 2006. Four statistical indices were employed to assess the modeling efficiency. The results indicated that the model simulated the variables well, with most relative error being less than 25%. Next, input and parameter uncertainty analysis were conducted for ammonia nitrogen, nitrate nitrogen, total nitrogen, and dissolved oxygen at 3 grid cells located in the upper, middle and downstream portions of the research area. For the nitrogen related variables, input from Zhutuo Station, the Jialingjiang River, and the Wujiang River were the main sources of uncertainty. Point and nonpoint sources also accounted for a large ratio of uncertainty. Moreover, nitrification contributed some uncertainty to the estimated ammonia nitrogen and nitrate nitrogen. However, reaeration was found to be a key source of uncertainty for dissolved oxygen, especially at the middle and downstream reaches. The analysis conducted in this study gives a quantitative assessment for uncertainty sources of each variable, and provides guidance for further pollutant loading reduction in the Three Gorge Reservoir Region.

Myopia, Degenerative

Scrofuloderma and bilateral anterior staphyloma of eye: an unusual association.
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Rajendra Prasad Centre for Ophthalmic Sciences

Keywords: Tuberculosis, Cutaneous; Corneal Ulcer; Biopsy, Fine-Needle; Staphylococcus; Tobramycin-therapeutic use; Cefazolin-therapeutic use; Corneal Transplantation; Keratoplasty, Penetrating

Abstract: We report a patient with bilaterally symmetrical perforated corneal ulcers with formation of anterior staphyloma associated with scrofuloderma. A 22-year-old female in her third month postpartum presented with multiple perforated corneal ulcers bilaterally. There was a presence of a skin lesion that was consistent with scrofuloderma. Fine needle aspiration cytology of preauricular lymph nodes showed evidence of granulomatous inflammation consistent with tuberculosis. Corneal scraping revealed the presence of coagulase-negative Staphylococcus. She was
treated with topical fortified combination antibiotics [cefa-zolin and tobramycin]. The corneal ulcer resolved with formation of anterior staphyloma in both eyes. The patient underwent anterior staphylectomy and tectonic keratoplasty in both eyes. Eight weeks postoperatively, her visual acuity improved to 20/200 in both eyes with clear grafts. Scrutuloderma may be associated with recurrent phlyctenulosis. Multiple corneal ulcerations coupled with use of topical steroids may result in corneal perforation and formation of anterior staphyloma.

Nigella sativa

Nigella sativa [kalonji]; effects on serum cholesterol of albino rats.
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Keywords: Cholesterol-blood; Cholesterol, HDL-blood; Cholesterol, LDL-blood; Rats; Phytotherapy
Abstract: The increased level of LDL-c in the serum has a high risk and the increased serum HDL-c level has a low risk for the development of atherosclerosis. The effect of Nigella Sativa on levels of cholesterol fractions were determined in this study on rats. 24 albino rats of 08 weeks age having equal number of males and females were kept at optimum atmospheric condition. The blood samples were taken at the start and different control and experimental diets were given for 24 weeks. The experimental diets were added with Nigella Sativa as 30 mg/kg body weight. The blood samples were taken at the end of study. The blood samples drawn at the start and end of the study were estimated for serum cholesterol. The results of control and experimental groups were compared. Total serum cholesterol in the control group showed increase from 8.3 +/- 3.30 to 13.96 +/- 9.3 at 24 weeks. The serum HDL cholesterol showed increase from 44.4 +/- 6.12 to 80.45 +/- 5.95 level at 24 weeks. The serum LDL cholesterol showed increase from 8.3 +/- 3.30 to 13.96 +/- 9.3 at 24 weeks. The total serum cholesterol in experimental group was increased from 76.9 +/- 6.5 to 117.5 +/- 6.65 at 24 weeks. The serum HDL cholesterol levels was increased from 41.7 +/- 4.9 to 83.42 +/- 5.92 at 24 weeks as compared with control group. The LDL cholesterol levels were decreased from 12.7 +/- 6.9 to 8.5 +/- 7.8 at 24 weeks. This study shows significant decrease in serum low density lipoprotein cholesterol level, and increase in serum high density lipoprotein cholesterol levels.

Noise, Occupational

Assessment of noise induced psychological stresses on printery workers.
Nassiri, P.; Azkhosh, M.; Mahmoodi, A.; Alimohammadi, I.; Zeraati, H.; Shaikouhi, P.; Jafari; Bahrami, P.
Tehran University of Medical Sciences - School of Public Health - Department of Occupational Health
International Journal of Environmental Science and Technology 2011; 8 (1): 169-176 (42 ref.)
Keywords: Noise; Stress, Psychological; Aggression; Anxiety; Depression; Job Satisfaction; Occupational Health
Abstract: The purpose of this study was to assess the relationship between psychological stresses and noise stresses on printery workers in Tehran, Iran. Hence, 267 workers were randomly selected. The Leq and Lmax were measured and the psychological stresses such as depression, anxiety, aggression and job satisfaction were also studied by the relevant questionnaires. The data were statistically analyzed by Pearson correlation test. The results demonstrated that there was no significant statistical relationship between noise and psychological stresses. In addition, by using Spearman regression method, the influence of variables such as age, gender and job history on psychological stresses caused by Leq and Lmax was studied and the results only revealed that the aggression caused by Leq increased in young personnel [P=0.02] as well as, anxiety caused by Lmax increased accompanied by increasing the job history and age of the workers [P=0.002 and P=0.007]. Therefore, more variables must be taken into consideration to judge about noise induced psychological stresses in workplaces.

Nose Diseases

complications

Paranasal sinuses and nasal cavity; the notorious neighbours of orbit.
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Lahore Medical and Dental College - Department of Ophthalmology
Keywords: Paranasal Sinus Diseases-complications; Paranasal Sinus-anatomy and histology; Exophthalmos- etiology; Ophthalmoplegia- etiology; Diplopia- etiology
Abstract: To describe the clinical and neuro-radiological patterns of orbital invasion by the sino-nasal diseases. Descriptive, Retrospective study. 2004 to 2009. We retrospectively reviewed fifty four cases of nasal and paranasal sinus diseases invading the orbit. The medical charts were analyzed. The data considered for the study was age, sex,
ocular presentation and associated systemic problems of the patients. The neuro-radiological results were correlated with the clinical picture. The age range was from 6 to 85 years [mean 45.5]. Male to female ratio was 3.5: 1. The initial clinical presentation was Proptosis [66.66%], disturbance of vision [25.9%], ophthalmoplegia [11.11%], diplopia [9.26%] and ptosis [9.26%]. 79.63% patients had inflammatory etiology and 20.4% had neoplastic lesions in the nasal and paranasal sinuses extending into the orbit.

**Nuclear Reprogramming**

Developmental competence and pluripotency gene expression of cattle cloned embryos derived from donor cells treated with 5-aza-2’-deoxycytidine.

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Shiraz University - School of Veterinary Medicine - Department of Anatomy and Embryology


**Keywords:** Nuclear Transfer Techniques; Epigenesis, Genetic; Azacitidine-analogs and derivatives; Cattle

**Abstract:** Reconstructed embryos from terminally differentiated somatic cells have revealed high levels of genomic methylation which results in inappropriate expression patterns of imprinted and non-imprinted genes. These aberrant expressions are probably responsible for different abnormalities during the development of clones. Improvement in cloning competency may be achieved through modification of epigenetic markers in donor cells. Our objective was to determine if treatment of donor cells for 72 hours with 5-aza-2’-deoxycytidine [5-aza-dc; 0-0.3 microM], a DNA methyl transferase inhibitor, improved development and expression of Oct-4. In comparison with untreated cells, 0.01 and 0.08 microM 5-aza-dc treated cells insignificantly decreased the blastocyst rate [32.1% vs. 28.6% and 27.2%, respectively] while it was significant for 0.3 microM treated cells [6.5%]. Embryo quality as measured by the total cell number [TCN] decreased in a dose-related fashion, which was significant at 0.08 and 0.3 microM 5-aza-dc treated cells when compared with 0 and 0.01 microM 5-aza-dc treated cells. Although reconstructed embryos from 0.08 and 0.3 microM 5-aza-dc treated cells showed lower levels of DNA methylation and histone H3 acetylation, development to blastocyst stage was decreased. The epigenetic markers of embryos cloned from 0.01 microM 5-aza-dc remained unchanged. These results show that 5-aza-dc is not a suitable choice for modifying nuclear reprogramming. Finally, it was concluded that the wide genomic hypomethylation induced by 5-aza-dc deleteriously impacts the developmental competency of cloned embryo.

**Ophthalmology**

**Ophthalmic genetics: moving forward.**

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**Keywords:** Genetics; Genetics, Medical

**Optic Atrophy, Hereditary, Leber**

Bilateral progressive visual loss in an epileptic, mentally retarded boy.

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University of Bari - Department of Ophthalmology-Otolaryngology


**Keywords:** Vision, Low; Epilepsy; Migraine Disorders

**Abstract:** Leber’s hereditary optic neuropathy (LHON) is a maternally inherited, monosymptomatic disorder, characterized by severe central vision loss and optic atrophy that most frequently affects young men. The classic LHON phenotype is associated to three mitochondrial DNA mutations, mostly homoplasmic, in the Mt-ND4, Mt-ND6, and Mt-ND1 genes, encoding for complex I subunits of the mitochondrial respiratory chain. Rare cases have been described in the literature in association with variable central nervous system involvement in a syndromic form called LHON ‘plus.’ In the present study, we report the case of a 16-year-old boy with the 3460/ND1 mutation who presented with epilepsy, migraine, and mental retardation as non-ophthalmic features. We also investigated his relatives who all had the 3460/ND1 mutation.
Leber's hereditary optic neuropathy: the mitochondrial connection revisited.
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King Saud University - College of Medicine - Department of Ophthalmology
Keywords: Optic Nerve Diseases; Mitochondria; Mutation
Abstract: Our current understanding of Leber's hereditary optic neuropathy [LHON]-mitochondrial connection falls short of comprehensive. Twenty years of intensive investigation have yielded a wealth of information about mitochondria, the mitochondrial genome, the metabolism of the optic nerve and other structures, and the phenotypic variability of classic LHON. However, we still cannot completely explain how primary LHON mutations injure the optic nerve or why the optic nerve is particularly at risk. We cannot explain the incomplete penetrance or the male predominance of LHON, the typical onset in young adult life without warning, or the synchronicity of visual loss. Moreover, primary LHON mutations clearly are not present in every family with the LHON phenotype [including multigenerational maternal inheritance], and they are present in only a minority of individuals who have the LHON optic neuropathy phenotype without a family history. All lines of evidence point to abnormalities of the mitochondria as the direct or indirect cause of LHON. Therefore, the mitochondria-LHON connection needs to be revisited and examined closely. This review will attempt to do that and provide an update on various aspects of LHON.

Optic Nerve

Optic nerve infiltration in relapse of acute lymphoblastic leukemia.
Ali, Mohammad Javed; Honavar, Santosh G.
L.V. Prasad Eye Institute - Department of Ocular Oncology Services
Keywords: Precursor Cell Lymphoblastic Leukemia-Lymphoma-complications; Recurrence; Magnetic Resonance Imaging; Papilledema-diagnosis

Oral Hygiene

Oral hygiene KAP assessment and DMFT scoring among children aged 11-12 years in an urban school of Karachi.
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The Aga Khan University - Department of Continuing Professional Education
JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 223-226 (18 ref.)
Keywords: Health Knowledge, Attitudes, Practice; Oral Health Students; Toothbrushing-statistics and numerical data; Urban Population; Cross-Sectional Studies; Students
Abstract: To assess the oral hygiene knowledge, attitude and practices among school children and evaluate their DMFT [Decayed/Missing/Filled Teeth] scores. Cross-sectional study. A private school of Karachi from March to April 2008. Convenient sample comprising 300 students of grade 6 within the age group of 11-12 years was selected. A knowledge, attitude and practices survey questionnaire based on quantitative indicators was filled by the students. Clinical examination was done for DMFT. Data analysis was done by using SPSS version 11. Associations were assessed using chi-square test and a p-value of < 0.001 was considered significant. There were 160 males and 140 females in the target group. The mean DMFT was found to be 1.27. The children had satisfactory knowledge of oral health's effect on general health and the problems associated with poor dental hygiene. However, 50.3% children did not have positive attitude towards importance of a dentist's role in maintaining their dental health. Only a few students [11.3%] had familiarity with dental floss. A statistically significant association was found between frequency of brushing and children's knowledge of the problems related to irregular tooth brushing [p < 0.001]. The attitude of school children towards dental health and dental service utilization is determined by certain social and cultural factors. The mean DMFT of 1.27 showed that there must have been some poor oral practices that are contributing towards a higher mean.
Orbital Pseudotumor

drug therapy

Role of antimetabolites in recalcitrant idiopathic orbital inflammatory syndrome.
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St John's Medical College - Department of Ophthalmology

Keywords: Antimetabolites-therapeutic use; Retrospective Studies; Methotrexate-therapeutic use; Azathioprine-therapeutic use; Treatment Outcome

Abstract: High-dose systemic steroids are the primary modality of treatment for idiopathic orbital inflammatory syndrome [IOIS]. Occasionally patients experience a relapse of symptoms on tapering steroids or require large doses of steroid, predisposing them to the adverse effects of steroids. We present our experience with the management of three patients with recalcitrant IOIS, with immunosuppressive therapy, using antimetabolites. A retrospective review of the medical records of the patients being reported. Two patients were treated with Methotrexate and one with Azathioprine for a duration of 6-24 months. Two patients were symptom-free three years after stopping the medication. One was doing well clinically with methotrexate therapy alone, when he was lost to follow-up after six months. No adverse effects of immunosuppressive therapy were encountered. High-dose systemic steroid therapy is the first-line treatment for IOIS, but in refractory or steroid-dependent cases, immunosuppressive therapy with antimetabolites is a safe and effective treatment alternative to steroids. However, treatment with antimetabolites warrants close monitoring for complications like bone marrow suppression and liver dysfunction, especially because long-term treatment is required.

Osteonecrosis

epidemiology

Avascular necrosis of the hip in sickle cell disease in Oman: Is it serious enough to warrant bone marrow transplantation?.
Wali, Yasser; Almaskari, Sultan
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SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 127-128 (8 ref.)

Keywords: Bone Marrow Transplantation-adverse effects; Anemia, Sickle Cell-complications; Graft vs Host Disease; Joint Diseases-pathology; Osteonecrosis-etiology

Ovarian Cysts

ultrasoundography

Adenexal cysts; survey of ultrasoundography, preoperative findings, histopathology.
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Ghurki Trust Teaching Hospital - Department of Obstetrics and Gynaecology

Keywords: Ovarian Cysts-surgery; Ovarian Cysts-pathology; Age Factors; Laparotomy; Risk Assessment; Ovarian Neoplasms-epidemiology; Prospective Studies

Abstract: [1] To evaluate the risk of malignancy in surgically removed ovarian cysts that was before the operation neither simple nor complex. [2] To determine the relationship of age with type of ovarian tumour. [3] To categorize the management of these cases according to the intra-operative findings. [4] To analyze the occurrence of various histopathological types of tumour. Medline Study Single centered prospective descriptive study of 150 cases. Department of Obstetrics and Gynaecology at Shaikh Zayed Hospital Lahore from 1st July 2005 to, 31st December 2006. 150 patients presented with adnexal cysts on preoperative ultrasonography, peroperative findings and histopathology reports. These patients were followed up in OPD. Showed the distribution of non-neoplastic and neoplastic tumours which were 84% and 16% respectively. The occurrence of malignancy increased with advancing age especially after 45 years. Common presentations were lower abdominal pain [53%] followed by menstrual disturbances [30%], abdominopelvic mass, abdominal distension and infertility. Risk of malignancy also increased with
parity. 73% masses were unilateral, 84% benign masses were unilocular whilst 85% malignant masses were echogenic and the complex cysts with papillary projection and multicollations showed 3-6 times higher risk of malignancy. Most patients were managed by exploratory laparotomy. Cystectomy and total abdominal hysterectomy were the commonest procedures performed. Regarding histopathologic evaluation 40% patients had tumours, 2.66% borderline malignancy and 13.3% malignant. 44% had non-neoplastic lesions. Serous and endometriotic cysts were the commonest benign histopathologic types and among malignant ones, epithelial ovarian tumours were the leading variants. Preoperative characterization of adnexal masses using sonographic and demographic data may have considerable potential in determining risk of malignancy and may be advantageous in terms of counseling patients for management.

**Ovarian Neoplasms**

**diagnosis**

**Study of ovarian tumor in young girls.**

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**Keywords:** Ovarian Neoplasms-pathology; Ovarian Neoplasms-surgery; Ovarian Cysts-epidemiology; Fertility

**Abstract:** To analyze various clinical presentation and the surgical management of ovarian pathology in young girls ranges from 15-25 years. Case series. Gynae Department 1, Lahore General Hospital Lahore. From January 2008 to December 2009. All young girls in the age group mentioned above having an ovarian pathology and managed during study period were included. Age of patients, presenting symptoms, USG findings, surgical management and finally histological diagnosis were noted. There were 20 cases with ovarian lesions. Most of patients presented at the age of 20-25 years [55%]. Mass abdomen seen in [30%] cases, followed by pain abdomen in [20%]. Lapratomy was done in most of cases and main aim was toward ovary sparing surgery as Cystectomy was done in [50%] cases and Oophorectomy was done in [30%] cases. 85% cases were benign on histology report and 15% were malignant. Ovarian tumors are rare in young age group. Benign lesions such as simple ovarian cysts are very common in this age. In young girls main interest is toward conservative and fertility sparing surgery.

**Ovulation Induction**

**Controlled ovarian hyperstimulation and intrauterine insemination cycles in patients with unilateral tubal blockage diagnosed by hysterosalpingography.**

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Tehran University of Medical Sciences - Mirza Koochak Khan Hospital - Department of Obstetrics and Gynecology


**Keywords:** Insemination, Artificial; Fallopian Tubes-pathology; Hysterosalpingography; Pregnancy Rate; Cross-Sectional Studies; Treatment Outcome

**Abstract:** Controlled ovarian hyperstimulation and intrauterine insemination [IUI] cycle is an ideal protocol for some subfertile patients. So, we decided to try this therapeutic protocol for the patients with unilateral tubal blockage diagnosed by hysterosalpingography [HSG]. To evaluate the effect of unilateral tubal blockage diagnosed by HSG on cumulative pregnancy rate [CPR] of the stimulated IUI cycles. A cross-sectional analysis was performed between October 2006 and October 2009 in an academic reproductive endocrinology and infertility center. Two groups of patients undergoing stimulated IUI cycles were compared. Sixtyfour infertile couples with unilateral tubal blockage diagnosed by HSG as the sole cause of infertility in the group [I], and two hundred couples with unexplained infertility in the group [II]. The patients underwent 3 consecutive ovarian hyperstimulation [Clomiphen citrate and human menopausal gonadotropin] and IUI cycles. The main outcome measurements were the CPRs per patients for 3 consecutive stimulated IUI cycles. Cycle characteristics were found to be homogenous between the both groups. CPRs were similar in group I [26.6%] and group II [28%] [p=0.87; OR=1.075; 95% CI: 0.57 -2.28]. Unilateral tubal blockage [diagnosed on HSG] has no effect on success rate of stimulated IUI cycles, so COH and IUI could be recommended as the initial therapeutic protocol in these patients.
**Oxidation-Reduction**

**Efficacy of ultraviolet radiation and hydrogen peroxide oxidation to eliminate large number of pharmaceutical compounds in mixed solution.**

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Osaka Sangyo University


**Keywords:** Ultraviolet Rays; Hydrogen Peroxide; Pharmaceutical Preparations; Hydroxyl Radical

**Abstract:** Ultraviolet photolysis and ultraviolet and hydrogen peroxide oxidation of fourteen commonly used pharmaceutical compounds and two personal care products in mixed solution using low pressure ultraviolet lamp was investigated in laboratory batch experiments. Removal of the compounds followed the first-order reaction kinetic. Three distinct impacts of hydrogen peroxide on ultraviolet and hydrogen peroxide oxidation of the compounds [positive, negative and no significant effect] were observed. Removal behavior of the several tested compounds in mixed solution varied significantly than their respective behavior in absence of coexisting compounds. Clofibric acid, diclofenac, fenoprofen, isopropiantipyrine, ketoprofen, phenytoin and triclosan were removed very efficiently [> 96%] by ultraviolet photolysis alone. Residual hydrogen peroxide during ultraviolet and hydrogen peroxide oxidation was quantitated for the first time. Hydrogen peroxide addition to ultraviolet photolysis was not worthy for majority of the tested compounds as their removal did not increase significantly and very big fractions [> 85%] of the added hydrogen peroxide [0.29 - 1.47 mM] remained unused presumably due to small fluence of the lamp, very small molar absorption for hydrogen peroxide at 254 nm [27.06 /M.cm] and acidic pH of reaction solution [< 5.7]. Further exploration on ultraviolet and hydrogen peroxide oxidation with higher fluence lamp and alkaline solution pH will clarify usefulness of the method to treat pharmaceutical contaminated waters.

**Pancreatitis, Chronic**

**chemically induced**

**Pancreatic stellate cells and alcohol induced chronic pancreatitis in albino rats: histological and immunohistochemical study.**

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*Egyptian Journal of Histology* [The] 2010; 33 (4): 757-766 (50 ref.)

**Keywords:** Pancreatitis, Alcoholic; Histology; Immunohistochemistry; Pancreatic Stellate Cells-pathology; Rats

**Abstract:** Pancreatic stellate cells [PaSCs] are myofibroblast-like cells found in the areas of pancreas that have exocrine function. The aim of the present work was to study the pancreatic stellate cells in the exocrine pancreas and to explain their role in pancreatic fibrosis associated with chronic alcoholic pancreatitis. Forty adult male rats were used in this study. The animals were divided into two groups; control and experimental. The experimental group was given alcohol by intragastric tube daily for 8 weeks. At the end of the experiment the animals were sacrificed and the pancreatic tissue was taken, processed and semithin and paraffin sections were obtained. Paraffin sections were stained with H and E, Mallory trichrome and immunohistochemical stains for detection of alpha smooth muscle actin [alpha-SMA] in PaSCs. Eight weeks after alcohol administration, the pancreatic tissue was traversed by thick connective tissue septa. The interlobular ducts were thickened, distorted and dilated. Some pancreatic acini were distorted, dilated and showed vacuolation and degeneration of their acinar cells. PaSCs were detected in three main sites like in control pancreas; periacinar, periductal and perivascular, but they showed an apparent increase in their number, decrease in their lipid droplets and transformation into myofibroblast like cells with marked expression of alpha-SMA especially in the fibrotic areas. From the present work it was concluded that the cells which were detected seem to be the pancreatic stellate cells which could play an important role in the development of pancreatic fibrosis associated with alcoholic chronic pancreatitis. Therefore, understanding the biology of PaSCs may offers potential therapeutic targets for the treatment and prevention of these diseases.

**Paracentesis**

**Spontaneous paracentesis through umbilical rupture in cirrhotic ascites.**

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*JCPSP - Journal of the College of Physicians and Surgeons Pakistan* 2011; 21 (4): 258 (6 ref.)

**Keywords:** Rupture, Spontaneous; Umbilicus-injuries; Liver Cirrhosis-complications; Ascites-complications
Pathology

trends

Trends and challenges in pathology practice choices and necessities.
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SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 38-44 (28 ref.)

Abstract: The way we provide healthcare is influenced by ongoing experiences, increased knowledge, new discoveries and scientific as well as technological advances. The rapid pace of important developments that have taken place in recent years have significantly influenced our choices of the ways we provide our health service. Like other medical specialties, pathology and its practice have had to respond to the rising needs and challenges within the health service in general and those facing the specialty in particular. This article addresses some of the challenges, particularly those which are unique to pathology. It discusses the choices that are available to different pathology departments depending on their individual circumstances.

Patient Satisfaction

Client satisfaction for nurses performance in maternal and child health centers in Helwan district.
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Helwan University - Faculty of Nursing - Community Health Nursing Department

Abstract: Client satisfaction is the extent to which a client expectation for services are met. In addition, client satisfaction is now a focal concern of quality assurance and an expected outcome of care. Hence, this study was carried out to measure client satisfaction for nurses performance that contribute to control morbidity and mortality rate and unplanned population growth was to measure client satisfaction as regards services provided in Maternal and Child Health Centers in Helwan district and assess nurses performance to their roles during case management. Descriptive research design was carried out at three health centers in Helwan District, which were nominated by Ministry of Health and Population [Atlas Medical Center, El-Sift Khadra Medical Center, and El-Maesara Medical Center]. Subjects were 668 client who accepted to participate in the study and 68 nurses. The researchers utilized two tools, the first self administered interview sheet including socio demographic characteristics of clients, clients satisfaction and health service performance questionnaire. The second was observational performance checklist for nurses practices during case management. Data were collected from October 2009 to February, 2010]. 292 clients out of 668 [43.7%] were on satisfied regarding nurses practices done in MCH. Also, significant differences between satisfied and unsatisfied client as regards to time for arriving to unit and causes for visiting MCH Centers. In addition, regarding performance of 68 nurse practices during case management in the three MCH centers, all nurse practices were adequate except measuring height [54%]. Applying training programmes for nurses to improve their quality of care as health care providers in MCH Centers, especially in communication skills and counseling.

Peptic Ulcer Perforation

diagnosis

Perforated peptic ulcer a review of 36 cases.
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International Islamic Medical College - Department of Anatomy

Abstract: To evaluate the epidemiology of peptic ulcer perforation in Armed Forces and further management / outcome of the patients. Data of 36 patients with perforated peptic ulcer collected. This data was analyzed on SPSS 13. CMH Rawalpindi from Jan 1979 to July 1981, Jan 1985 to Dec 1987 and Jan 2001 to Dec 2003. Out of 36 patients 35 were male and only one was female. Twenty four [67%] were between 31-50 years. No past history was taken from
eight [22%] patients. Thirty four [94%] patients presented with duodenal perforation. Twenty patients [55%] had rigidity all over abdomen and peristalsis were present in ten [28%] patients who reported within twelve hours. Seventy eight [78%] were diagnosed by history and simple radiological examination. All the patients were treated by laparotomy [simple closure with omental patch]. Post operative complications occur in ten [28%] patients and mortality rate was 8%. Predominantly the peptic ulcer perforation occurs between 30-50 years of age. The incidence reduces with succeeding years of study. Post operative complications were less in younger age group .Early diagnosis can be made easily by taking good history and performing simple radiological examination.

**Pest Control, Biological**

Application of biofungicides in control of damping disease off in greenhouse crops as a possible substitute to synthetic fungicides.

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International Journal of Environmental Science and Technology 2011; 8 (1): 129-136 (45 ref.)

**Keywords:** Fungicides, Industrial; Greenhouse Effect; Cucumis; Pythium; Phytophthora; Trichoderma

**Abstract:** The purpose of this study was to evaluate the effectiveness of a commercial biofungicide such as Trichomix-HV in controlling damping-off disease in cucumber seedlings of greenhouses. In this regard, 504 fungal isolates were collected from greenhouses at 31 districts in city of Jiroft in Iran. Pythium aphanidermatum, P. ultimum, P. irregularare, Phytophthora drechsleni, and Ph. melonis accounted for 9.9%, 8.3%, 4.5%, 4.9%, and 21% of total isolates collected, respectively. Isolates of P. aphanidermatum obtained from commercial cucumber in greenhouses were tested in vitro and under greenhouse conditions for sensitivity to chemical and biological treatments. To this aim, Trichomix-HV a commercial formulation of Trichoderma harzianum strain T969 and the fungicides Metalaxyl and Metalaxyl MZ were amended into the culture medium as well as into sterilized or non-sterilized greenhouse soils inoculated by the pathogen and containing plants at the seedling stage. Trichomix-HV significantly [P < 0.001] reduced seedling infection at a rate of 82% when applied into soil medium at a concentration of 10^7 conidia ml/L and reduced vegetative growth of Pythium aphanidermatum in vitro. The result from this study shows that Trichomix-HV can be effectively used as a biocontrol agent for controlling damping-off cucumber seedlings and having the potential to replace chemical fungicides as a mean of disease control.

**Phobic Disorders**

therapy

[Effects of meta-cognitive therapy on symptoms of social phobia patients].

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Armaghane - danesh 2011; 16 (1): 21-30 (27 ref.)

**Keywords:** Cognitive Therapy; Treatment Outcome

**Abstract:** Social phobia is an anxiety disorder, which can be described as a strong, persisting fear of situations where humiliation or embarrassment may occur. The purpose of this study was to determine the effect of meta-cognitive therapy [MCT] on symptoms of social phobia [SP] patients. This semi-experimental study was conducted in 2010. with pretest-posttest and follow-up design, using control group. From all social phobia disorder [SPD] patients referring to psychology clinics in Shiraz, Iran in 2010, 19 patients were selected through the objective sampling method and were randomly divided into two experimental and control groups. The Social Phobia Symptoms Assessment Questioner [SPSQAQ] and Fears of Negative Evaluation Scale [FNE] were used as the pretest measures. The experimental group received 8 weeks of Wells' meta-cognitive therapy sessions. The control group was in the waiting list until the end of the follow up. The same measures were used for post-test and follow-up [after 3 months]. The results of analysis of multivariate covariance showed that MCT had a significant effect in reducing the symptoms of SPD [p<0.001]. This intervention is believed to reduce symptoms of social phobia [SP] patients by facilitating transmission from the object mode to the meta cognitive mode and enhancing the efficient and flexible coping skills.
Pituitary Apoplexy

complications

Sudden onset isolated complete third nerve palsy due to pituitary apoplexy.
Diyora, Batuk; Nayak, Naren; Kukreja, Sanjay; Kamble, Hanmant
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L.T.M.G. Hospital - Department of Neurosurgery
Keywords: Ophthalmoplegia-diagnosis; Oculomotor Nerve-pathology; Early Diagnosis

Pleural Effusion

Author's reply.
Garg, R.; Sodhi, R.; Jabeed, P.; Rastogi, A.
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Chhatrapati Sahujji Maharaj Medical University - Department of Pulmonary Medicine
Annals of Thoracic Medicine 2011; 6 (1): 47 (3 ref.)
Keywords: Wuchereria bancrofti; Mansonella; Biopsy

Filarial pleural effusion.
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Narayana Medical College - Department of Pulmonary Medicine
Keywords: Wuchereria bancrofti; Mansonella

Polycyclic Hydrocarbons, Aromatic

Distribution behavior of polycyclic aromatic hydrocarbons in roadside soil at traffic intercepts within developing cities.
Kumar, V.; Kothiyal, N.C.
Dr. B. R. Ambedkar National Institute of Technology - Department of Chemistry
International Journal of Environmental Science and Technology 2011; 8 (1): 63-72 (39 ref.)
Keywords: Chromatography, Gas; Developing Countries; Environmental Pollution; Soil Pollutants
Abstract: A study of polycyclic aromatic hydrocarbons pollution in roadside soil was conducted in developing city environment of northern India during autumn and winter season to ascertain the contamination levels and their distribution behavior in soil. The concentration of polycyclic aromatic hydrocarbons was determined at ten locations of Jalandhar city, Punjab in India at 1, 2 and 3 m distances from roadside in soil covering all the major traffic intercepts within city. The samples were extracted in acetone and dichloromethane [1:1] using soxhlet extraction. The extracts were then filtered on a silica gel micro column to remove impurities and elute was subjected to GC-FID. The total average concentration [city average] was found to be 4.04 micro g/g and 16.38 micro g/g during winter and autumn respectively. DiBenzo [ah] Anthracene and Benzo [a] Pyrene were the individual polycyclic aromatic hydrocarbons found in highest concentration at all the intercepts ranging between 0.008 to 28.4 micro g/g during winter and 0.01 to 252.55 micro g/g during autumn. Average concentration of non-carcinogenic and carcinogenic polycyclic aromatic hydrocarbons during winter and autumn was found to be 2.1 and 6.4 and 4.74 and 35.08 micro g/g respectively. The average ratio of non-carcinogenic and carcinogenic Polycyclic Aromatic Hydrocarbons was found to be 1:3 during winter, and 1:7.6 during autumn at most of the intercepts. Total carcinogenic polycyclic aromatic hydrocarbons concentration was found quite high [80%] in comparison to non-carcinogenic polycyclic aromatic hydrocarbons [20%] at most of the intercepts.
Polycystic Kidney Diseases

Giant polycystic kidney and acute abdomen in chronic renal failure.
Arruda, Pedro F. Ferraz; Spessoto, Luis Cesar F.; Godoy, Moacir Fernandes; de Godoy, Jose Maria Pereira
Medicine School - Urology Section
Urology Annals 2011; 3 (1): 39-41 (9 ref.)
Keywords: Abdomen, Acute; Kidney Failure, Chronic; Intestinal Obstruction
Abstract: The case of a rare complication is reported of a 53-year-old patient with giant polycystic kidney [4250 g] that evolved with acute small bowel occlusion. The patient was submitted to surgery which identified that the intestinal occlusion was due to external compression of the intestinal loops. Excision of the mass solved the case.

Polycystic Ovary Syndrome

blood

Evaluation of homocysteine levels in patients with polycystic ovarian syndrome.
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Shahid Beheshti University - Infertility and Reproductive Health Research Center - Department of Obstetrics and Gynecology
Keywords: Homocysteine-blood; Prospective Studies; Case-Control Studies; Body Mass Index; Risk Assessment
Abstract: To determine the level of plasma homocysteine in patients with polycystic ovary syndrome [PCOS] compared with healthy controls. In this prospective case-control study on 85 PCOS women and 83 controls matched by body mass index [BMI], homocysteine levels were assessed. The mean level of homocysteine was 16.25 +/- 11.94 micromol/L in patients with PCOS and 11.58 +/- 3.82 micromol/L in controls [p=0.002]. Patients with PCOS had a significantly higher risk for hyperhomocysteinemia compared with BMI-matched control women. These data suggest that homocysteine levels are elevated in the PCOS population. Further studies are needed to characterize this relationship.

epidemiology

The prevalence of polycystic ovary syndrome [PCOS] in high school students in Rasht in 2009 according to NIH criteria.
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Guilan University of Medical Sciences - Department of Obstetric and Gynecology
Keywords: Prevalence; Students; Schools; Cross-Sectional Studies; Polycystic Ovary Syndrome-diagnosis
Abstract: Polycystic ovary syndrome [PCOS] is the most common endocrine disorder in women associated with many reproductive, endocrine, metabolic and cardiovascular dysfunctions. This study aimed to determine the prevalence of PCOS among high school students in Rasht. In a cross-sectional study, 1850 students were selected by a multi-stage cluster sampling from all high schools in Rasht. The inclusion criteria were: age 17-18 years, menarche from 10-16 years, normal prolactin and thyroid stimulating hormone [TSH] values, no history of anatomical malformation, no use of medication or hair-removal techniques, and a history of oligo- or amenorrhea. PCOS was diagnosed if both menstrual dysfunction and clinical hyperandrogenism were detected. Mean age of subjects was 17.2 +/- 0.7 years and the age of menarche was 12.8 +/- 0.9 years. Of all students, 378 [20.4%] had oligomenorrhea and PCOS was diagnosed in 210 [11.34%] according to the National Institute of Health [NIH] definition. PCOS subjects, mean body mass index [BMI], waist circumference, and waist/hip [W/H] ratio were 21.1 +/- 3.6, 73.4 +/- 8.0 cm and 0.77 +/- 0.05, respectively. A family history of diabetes mellitus type 2 was reported in 24.7% of subjects. The prevalence of PCOS in this study was similar to the international estimates of 10-20% in Caucasians. A long-term follow-up is needed to compare the accuracy of clinical determination of the disease versus diagnosis based on hormonal and/or sonographic assessments.
Post-Dural Puncture Headache

etiology

Postdural puncture headache; comparison between lumbar puncture needle no 25 G and 27 G.
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Department of Anaesthesia and Intensive Care
Keywords: Spinal Puncture-methods; Spinal Puncture-adverse effects; Spinal Puncture-instrumentation; Needles-adverse effects; Cross-Sectional Studies; Cesarean Section
Abstract: To evaluate the role of needle diameter in causing postdural puncture headache [PDPH] in patients undergoing elective caesarian section. Comparative cross-sectional study. This study was conducted in Department of Anaesthesia and Intensive care PNS Shifa Karachi over duration of six months. It was a cross sectional study of 100 patients, which were divided into two separate groups. Group I and Group II were given spinal anaesthesia with 25 gauge and 27 gauge Quincke needles respectively. In both the groups the patients were randomly selected and were blind to size of the spinal needle used. The data was analyzed using Chi-square test. A P value of <0.05 was considered statistically significant. Two patients in 25-G group and one in 27-G group required additional general anaesthesia because of inadequate spinal anaesthesia. Thus, a total of three patients were excluded from the study. Five out of forty-eight patients in group I and one out of forty-nine patients in Group II suffered from post spinal headache. The proportion of patients with post spinal headache with 25 G needle is significantly more than those with 27 G.

Postpartum Hemorrhage

drug therapy

Primary postpartum hemorrhage; efficacy of oral misoprostol in comparison to intravenous oxytocin.
Zaman, Bushra Sher; Siddique, Sumera; Sher uz Zaman, Muhammad
Bahawal Victoria Hospital - Department of Obstetrics and Gynaecology
Keywords: Misoprostol-administration and dosage; Misoprostol-therapeutic use; Oxytocin-administration and dosage; Oxytocin-therapeutic use; Treatment Outcome
Abstract: It is to compare efficacy of Oral Misoprostol with intravenous oxytocin in the management of primary postpartum hemorrhage. Quasi experimental study. Obstetrics and Gynaecology Unit-I, Bahawal Victoria Hospital, Bahawalpur. From 1st December, 2006 to 1st December, 2007. The study was conducted on 90 patients who went into post partum hemorrhage during the study period. Cases were divided into two groups each having 45 patients fulfilling the inclusion criteria. Group 'A' had those who received oral misoprostol 600microg and group 'B' those who received 5 UNITS intravenous oxytocin. The variables analyzed were failure of drug, time taken to control bleeding and side effects of drugs. Students t-test was used for comparison between means and chi-square test for comparison between percentages. Significance was taken at P<0.05. It was noted that failure rate of oral misoprostol was 11.1% and that of oxytocin was 22.2%. Mean time taken to control bleeding by misoprostol was 16.6 minutes and 1.311 minutes by intravenous oxytocin. Side effects was observed in 35.5% cases of misoprostol group and 2.22% cases of oxytocin group. The time taken to control bleeding and side effect profile is more better in intravenous oxytocin as compared to oral misoprostol in the management of primary postpartum hemorrhage, but number of patients responded to oral misoprostol are more, so it can be used as in combination of oxytocin where oxytocin alone failed to work.

Pregnancy Complications, Hematologic

epidemiology

Anemia in pregnancy; related risk factors in under developed area.
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Nishtar Medical College
Keywords: Anemia-epidemiology; Risk Factors; Developing Countries; Anemia, Iron-Deficiency-epidemiology; Gravidity

Abstract: To see frequency of anemia and its related risk factors in pregnant women in an under developed area of Southern Punjab. Descriptive study. Ante natal outpatient clinic Tehsil Headquarter Hospital Kabirwala [Khanewal]. October2006 to March 2007. Sampling technique: Non-probability purposive. Two hundred and fifty pregnant ladies attending ante natal outpatient clinic at Tehsil Headquarter Hospital Kabirwala [Khanewal] irrespective of reproductive age, socio economic, educational and residential status were included in this study. After taking consent a pre-designed proforma was filled in. Hemoglobin level was checked. Subjects were categorized according to the hemoglobin levels into mild [10.0-10.9 g/dl], moderate [8.0-9.9 g/dl] and severe [< 8.0 g/dl] anemia. Two hundred and fifty pregnant women were studied. Mean age of the pregnant women was 28.28 +/- 5.20 years. Out of these 250 pregnant women, 138 [55.2%] were anemic and out of these 83 [60.14%] were moderately anemic while 55 [39.86%] had mild anemia and none of these had sever anemia. Among participating pregnant women, 28 [11.2%] were in 1st trimester, 85 [34%] in 2nd trimester and 137 [54.8%] were in the 3rd trimester. Anemia was observed in 10 [35.71%] women in first trimester, 35 [41.18%] in 2nd trimester and 93 [67.88%] in 3rd trimester. Anemia was more related with multi gravidity. Anemia was [38%] were having poor dietary habits and out of these, 78 [82.10%] were anemic. One hundred eighty women were in first trimester, 35 [41.18%] in 2nd trimester an d 93 [67.88%] in 3rd trimester. Anemia was observed in 10 [35.71%] pregnant women, 138 [55.2%] were anemic and out of these 83 [60.14%] were moderately anemic while 55 [39.86%] had mild anemia and none of these had sever anemia. Among participating pregnant women, 28 [11.2%] were in 1st trimester, 85 [34%] in 2nd trimester and 137 [54.8%] were in the 3rd trimester. Anemia was observed in 10 [35.71%] women in first trimester, 35 [41.18%] in 2nd trimester and 93 [67.88%] in 3rd trimester. Anemia was more related with multi gravidity. Anemia was [38%] were having poor dietary habits and out of these, 78 [82.10%] were anemic. Ninety five [38%] were taking iron supplements, out of these 55 [38.73%] were anemic. Twenty one pregnant women were with gravida more than 6 and out of these 19 [90.47%] were anemic, of these 11 [57.89%] had moderate anemia while 8 [42.10%] were mildly anemic. The results of present study showed high frequency of anemia in the targeted population. Anemia was related with poor dietary habits especially poor iron intake. Anemia was more related with multi gravidity.

Pregnancy Outcome

Obstetric outcomes; subsequent to stillbirth in the first pregnancy.

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Keywords: Delivery, Obstetric; Stillbirth; Fetal Death; Prospective Studies; Cohort Studies; Risk Assessment

Abstract: To compare obstetric outcomes in the pregnancy subsequent to still birth with that following live birth in first pregnancy. Medline data base. Prospective cohort study. Ghurki Trust Teaching Hospital Lahore. The study included women who delivered a stillbirth between 2005 - 2007[exposed cohort]. A group of women with live birth [unexposed cohort] was matched for delivery within the same year, maternal age [ +/- 3 years], parity [ +/- 1]. In 2009, the charts of these women were examined for subsequent pregnancies. Main outcome measures Maternal and neonatal outcomes in the second pregnancy, pre eclampsia, placental abruption, labour induction, instrumental delivery, cesarean delivery, malpresentation, prematurity, low birthweight and stillbirth. The exposed cohort B [n =50] was at increased risk of preeclampsia [44% versus 28%, p value = 0.001<0.05] and placental abruption [20% versus 2%] and malpresentation [18% versus 4%]. labour induction [20% versus 8%] instrumental delivery [16% versus 8%] and emergency caesarean [40% versus 16%]; and prematurity [62% versus 26%, p value = 0.001<0.05] , low birthweight [86% versus 54%, p value = 0.000<0.05] and stillbirths [6% versus 2%, p value = 0.489>0.05] of the infant as compared with the unexposed cohort group A[n =50]. Majority of women with a previous stillbirth have a live birth in the subsequent pregnancy, they are a highrisk group with an increased incidence of adverse maternal and neonatal outcomes.

The pregnancy outcome in patients with minor beta-thalassemia.

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Keywords: beta-Thalassemia; Retrospective Studies; Case-Control Studies; Oligohydramnios; Cesarean Section

Abstract: beta-thalassemia is the most common hereditary disease in Iran and more than 2 million carriers of the beta-thalassemia mutant gene are living in this country. To determine pregnancy outcome of women with beta-thalassemia minor. In this retrospective, case-control study in two universities affiliated hospitals in Shiraz, all pregnancies occurred between 2006 and 2008 were included. Patients were divided in two groups regarding the presence of beta-thalassemia minor. Patients in case and control groups were matched according to maternal age, gestational age and number of previous pregnancies. Cesarean delivery, hypertensive disorders, gestational diabetes mellitus, premature rupture of membranes and preterm labor were recorded in each group and were compared using the lampda 2 or Fisher exact tests. Overall 510 beta-thalassemia minor subjects and 512 healthy controls were studied. Cases with beta-thalassemia minor had significantly higher prevalence of oligohydramnios [p<0.001] and cesarean section delivery [p<0.001]. There was no significant difference regarding Apgar score in 1st [p=0.65] and 5th minute [p=0.25]. IUGR [p=0.073], gestational diabetes mellitus [DM] [p=0.443] and preeclampsia [p=0.116] between two study groups. beta-thalassemia minor does not significantly influence the pregnancy outcome in the negative way.
Pregnancy; management and outcome before and after 41 weeks.

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Professional Medical Journal - Quarterly [The] 2011; 18 (1): 5-10 (27 ref.)

Keywords: Apgar Score; Pregnancy, Prolonged-mortality; Prospective Studies; Delivery, Obstetric

Abstract: To evaluate whether serial monitoring of fetuses beyond 40 weeks with biophysical profile and non-stress test improves the fetal outcome in terms of morbidity and mortality determined by APGAR score at 5 minutes, presence of meconium in liquor, weight of baby and admission of neonate in nursery and to compare the maternal morbidity associated with prolonged pregnancy, labour induction and mode of delivery in the study and control group. It is a prospective controlled study conducted in the department of obstetrics and gynaecology Ghurki Trust Teaching Hospital, Lahore from 1st September 2007 to 31st August 2009. 200 patients at 40 weeks of pregnancy matching the inclusion criteria were enrolled for the study. They were divided into a study and a control group consisting of 100 patients each. Patients in the study group were subjected to fetal monitoring in the form of cardiotocography [CTG] and biophysical profile [BPP] while those in the control group were evaluated clinically and by kick count chart [KCC]. The outcome of the two groups beyond 40 weeks was compared with each other. The percentage of patients reaching 42 weeks was 4 in each group. The rest went into spontaneous labour, were induced or had emergency caesarean sections due to various reasons. The difference between the rest of the parameters like maternal morbidity, mode of delivery, fetal APGAR score and admission in neonatal intensive care unit [NICU] between the two groups were not statistically different. After 40 weeks of gestation fetal monitoring should be started with proper counseling of the patient, clinical assessment and fetal kick chart. NST and biophysical profile should be used selectively in patients with sluggish fetal movement or suspected reduced liquor clinically. All patients who reach 42 weeks must be induced.

Pregnancy, Ectopic

etiology

Ectopic pregnancy; audit at Maula Bakhsh teaching hospital Sargodha.
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Keywords: Pregnancy, Ectopic-epidemiology; Risk Factors; Pelvic Inflammatory Disease-complications; Early Diagnosis; Hospitals, Teaching; Clinical Audit

Abstract: To find out the causative factors for rising rate of ectopic pregnancy in young women at periphery. Descriptive study. Maula Bakhsh Teaching Hospital [Obstetrical and gynaecological unit] Sargodha, from January 2008 -December 2008. All patients who were presented in labour room emergency and gynaecological out patients department with confirmed diagnosis of ectopic pregnancy on USG were included in the study. A pre-formed proforma was used to record the details about the demographic features, pre-existing risk factors for ectopic pregnancy, clinical features at presentation and management. Frequency of ectopic pregnancy was too high in our study compared to international studies. Majority of patients were young and nullipara. Leading risk factor is pelvic inflammatory disease due to septic induced abortion. 92% of patients had acute presentation. Rising rate of ectopic pregnancy was found in young, nulliparous women secondary to pelvic inflammatory disease. The frequency can be reduced by awareness of reproductive health care, liberal contraceptive utilization, acceptable adequate planned family. Early diagnosis and timely referral may be helpful in treating the patients prior to tubal rupture with decreased morbidity and mortality.

Primary Ovarian Insufficiency

drug therapy

A case report of spontaneous pregnancy during hormonal replacement therapy for premature ovarian failure.
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Iranian Journal of Reproductive Medicine 2011; 9 (1): 47-49 (18 ref.)

Keywords: Pregnancy; Hormone Replacement Therapy
Abstract: Premature ovarian failure [POF] is a common condition; its incidence is estimated to be as great as 1 in 100 by the age of 40 years. Physiologic replacement of ovarian steroid hormones seems rational until the age of normal menopause. Temporary return of ovarian function and pregnancy may occur rarely in women with POF. We report a case of POF who conceived during hormone replacement therapy. A 30 years-old woman with confirmed POF after pelvic surgery and sever emotional stress conceived spontaneously. Return of ovarian function and achievement of pregnancy is possible in women with POF.

Prostatic Neoplasms

diagnosis

Role of multidetector computed tomography prostatic perfusion in diagnosis of prostate cancer.
Aly, Haisam A.S.; Imam, Hisham M.; Elsharakawy, Moustafa; Abdel Aziz, M. Atef
Assiut University - South Egypt Cancer Institute - Department of Radiology
Assiut Medical Journal 2010; 34 (3): 71-82 (11 ref.)
Keywords: Tomography, X-Ray Computed; Histology
Abstract: To evaluate the role of multidetector computed tomography prostatic perfusion in diagnosis of prostate cancer. From November 2007 to December 2009, 112 patients with suspected prostate cancer [with no previous histologic proof of prostate cancer] performed multidetector computed tomography prostatic perfusion followed by TRUS examination results were correlated with histopathological results from TRUS guided biopsy of the prostate were included in this thesis study. Our results are yielding multidetector computed tomography [functional ct "fct"] evaluation for detection of malignancy with sensit ivity 90.54%, specificity 86.8%, positive predictive value 93.056%, negative predictive value 82.5%, accuracy 89.3% and pre-test probability = 64.3%. Multidetector computed tomography prostatic perfusion is a sensitive imaging modality the diagnosis of prostate cancer and should be routinely employed for raising the positive predictive value of prostatic biopsy.

Receptors, G Protein Coupled

genetics

A histological study of the effects of SMO gene activation in mouse skin.
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Keywords: Skin; Carcinoma, Squamous Cell; Mice; Kruppel-Like Transcription Factors; Histology
Abstract: Activating mutations in the SMO [smoothened] gene have been isolated from human basal cell carcinoma. Basal cell carcinoma [BCC] is the most common human malignancy worldwide. Modeling this type of malignancy in animals would help in studying this disease in depth. This study was carried out to characterize a mouse model having SMO gene activated in its skin to see whether it will develop BCC and serves as a model for this disease. In this study, a transgenic mouse model was characterized in which SMO gene was only activated in its skin. The specimens were processed for paraffin sections. They were used for haematoxylin and eosin staining, immunostchemical staining by keratin 10, BrdU staining and in situ hybridization to detect Gli1 mRNA. In this model, epidermis is thickened with areas of epidermal down growths invading the underlying dermis, one of the protein markers of BCC[K 10] is expressed, one of the signs of epidermal cell proliferation [increased BrdU incorporation] is displayed and one of the hedgehog signaling pathway-a pathway involved in human basal cell carcinoma-target genes [Gli1] is upregulated. These changes are similar to the changes reported in human basaloid follicular hamartoma, but BCC does not develop even in elderly mice. The results of this study indicate that activation of SMO gene in mouse skin appears to be insufficient for the development of BCC.

Renal Dialysis

Effect of a supportive self-care educational intervention on quality of life among patients with end stage renal disease undergoing hemodialysis.
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New Egyptian Journal of Medicine [The] 2010; 42 (4): 359-368 (23 ref.)
Keywords: Kidney Failure, Chronic; Self Care; Quality of Life; Questionnaires
**Abstract:** End-stage renal disease (ESRD) and its treatments negatively affect quality of life (QOL). Self-care is a pressing approach for patients to deal with their problems. The deterioration in QOL is particularly evident in the patients who had been on hemodialysis for an extended period of time. Health education is an independent function of nursing practice and is a responsibility of the nursing profession to offer appropriate education. Nursing intervention is directed towards promoting, maintaining, and restoring health status, preventing illness, and supporting people to adapt to the residual effects of illness. The aim of the present study was to evaluate the effect of a supportive self-care educational intervention on QOL among ESRD patients undergoing hemodialysis. It was hypothesized that ESRD patients undergoing hemodialysis who were subjected to a supportive self-care educational intervention would improve their QOL. Participants were 50 patients receiving maintenance hemodialysis. This study was conducted in the dialysis unit of King Khaled University Hospital, Arriyadh, Kingdom of Saudi Arabia. A quasi-experimental research design was utilized in this study. The design was implemented before and after applying a supportive self-care educational intervention on one group of ESRD patients to evaluate their QOL during undergoing hemodialysis using an instructional Arabic booklet. Two tools were used to collect data; [1] demographic data sheets, [2] a structured interview questionnaire of the Kidney Disease Quality of Life scale short form KDQOL-SF(TM) 1.3. Results of the present study indicated that there was significant improvement revealed in the scores of all domains of QOL (general health, social and emotional status, illness impact, financial and medical satisfaction) p<0.001, except the physical domain. As well statistically significant associations were found between pre-post-intervention improvements in the total QOL scores. The statistically significant independent predictors of QOL improvement were supportive self-care educational intervention constant attendance, dialysis duration and marital status. The study concluded that implementation of the supportive self-care educational intervention was associated with significant improvement in all domains of QOL, except the physical domain. The study findings implied the necessity of developing supportive self-care educational intervention for HD patients to be implemented on a wider scale and evaluated for further improvement.

**Retinal Diseases**

diagnosis

**Hemorrhagic intraretinal macrocyst: Differential diagnoses and report of an unusual case.**
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Keywords: Retinal Diseases-pathology; Cysts-diagnosis; Diagnosis, Differential; Cysts-ultrasonography; Retinal Diseases-ultrasonography
Abstract: Retinal 'cysts' may be single or multiple, ranging from two-to-ten disc diameters in size, and occur in eyes with longstanding retinal detachment. The authors describe a retinal macrocyst larger than ten disc diameters, with a blood-filled cavity, and its ultrasound findings. Improved retinal nourishment following retinal reattachment gradually reverses the process responsible for cystic degeneration, with the eventual collapse of the cyst (within days or weeks). Surprisingly, this giant cyst did not collapse for almost three years despite retinal reattachment. The internal mobile echogenic contents were suggestive of blood. The possible reason of blood in the cyst could be rupture of the retinal blood vessels in the cyst cavity. This could be a recurrent phenomenon, which did not allow the cyst to collapse. The Hemorrhagic Intraretinal Macrocyst needs to be differentiated from mimicking clinical conditions, namely, retinoschisis, choroidal melanoma, subretinal abscess, choroidal hemangioma, and the like. It could take up to a few years to collapse spontaneously, following successful retinal reattachment.

**Retinal Pigment Epithelium**

drug effects

**Retinal pigment epithelial changes after trypan blue-assisted internal limiting membrane peeling for idiopathic macular hole.**
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Keywords: Retinal Pigment Epithelium-pathology; Trypan Blue-adverse effects; Retinal Perforations-therapy
Retinoblastoma

epidemiology

A rare case of adult onset retinoblastoma.
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Department of Vitreoretina Services
Keywords: Retinoblastoma-diagnosis; Diagnosis, Differential; Retinoblastoma-pathology
Abstract: Retinoblastoma usually manifests before five years of age. Retinoblastoma in an adult is extremely rare. Twenty-three cases of retinoblastoma in adults 20 years or older have been reported in world literature. We report a case of adult onset retinoblastoma in a 29-year-old female. Our patient had unilateral endophytic retinoblastoma with vitreous seeds and calcification on ultrasonography. She underwent enucleation with silicone ball implantation and the diagnosis was confirmed histopathologically. The diagnosis of retinoblastoma should be kept in mind in cases presenting with a white mass lesion of unknown etiology, in the fundus of an adult.

Retinopathy of Prematurity

epidemiology

Risk factors and outcomes for retinopathy of prematurity in neonatal infants with a birth weight of 1,501-2,000 g in a Chinese Neonatal Unit.
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Medical Principles and Practice 2011; 20 (3): 244-247 (22 ref.)
Keywords: Risk Factors; Infant, Very Low Birth Weight; Retinopathy of Prematurity-physiopathology; Gestational Age; Sepsis-complications; Infant, Newborn; Infant, Premature; Asphyxia-complications
Abstract: To determine the risk factors and outcomes of retinopathy of prematurity [rop] in infants with a birth weight of 1,501-2,000 g. Materials and methods: clinical characteristics and risk factors were compared and nonconditional logistic regression analysis was performed to determine independent predictors for rop. There were 54 [9.8%] cases of rop in 553 patients with a birth weight of 1,501-2,000 g. The most common classification of rop was in stage 1 [50/54, 92.6%; stages 2 and 3 rop: 2 infants each]. By logistic regression analysis, the following factors independently predicted rop: gestational age at birth $\leq$34 weeks [odds ratio [or]: 9.01; 95% confidence interval [ci]: 1.18-68.70], septicemia [or: 2.88; 95% ci: 1.30-6.36] and perinatal asphyxia [or: 5.74; 95% ci: 2.35-14.01]. Rop occurred commonly among infants with a birth weight of 1,501-2,000 g. The risk factors were gestational age at birth $\leq$34 weeks, septicemia and perinatal asphyxia.

Sarcoidosis

Sarcoidosis in the eastern region of Saudi Arabia.
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Saudi Aramco Medical Services Organization - Dhahran Health Center - Internal Medicine Services Division
Keywords: Retrospective Studies; Cough; Dyspnea; Arthralgia; Splenomegaly; Tuberculosis; Hepatomegaly; Lymphatic Diseases; Lymphoma
Abstract: To review a general hospital's experience with sarcoidosis and the clinical pattern of the disease among Saudis. A retrospective file review was carried out on all patients with a proven diagnosis of sarcoidosis in a general hospital in Eastern Saudi Arabia over a period of 11 years [1998-2008]. Sixty-nine patients, of whom 33 cases were included in the analyses, were diagnosed to have sarcoidosis during the study period. There were 18 females and 15 males. The mean age was 44.5 years [SD 17]. The most common presentations were cough [48%], dyspnea [21%], joint pain [18%], splenomegaly [12%], hepatomegaly [9%], and lymphadenopathy [5%]. The biochemical analysis showed elevated calcium levels in 6% and elevated angiotensin converting enzyme [ACE] in 14 [46.7%]. The tuberculin skin test was negative in all tested patients [n = 29] except one patient. The patients were classified using the modified Scadding classification system. None of the patients was in stage 0, 39.4% were in stage 1, 45% were in stage 2 and 15% were in stage 3.. The diagnosis in all patients was proven histologically. The outcome was favorable
in most patients [85%], and in 6% of the patients, the course was chronic and progressive, although 66% received active treatment. Sarcoidosis does occur in native Saudis. The clinical presentation of these patients was similar to the western pattern of disease with some differences such as relative lack of cardiac, eye, parotid, and central nervous system involvement. The rarity of cardiac and central nervous system involvement was comparable with other Middle Eastern studies. Sarcoidosis, though rare in our community, should still be considered in the differential diagnosis of patients with the typical presentation after excluding tuberculosis.

Schistosomiasis mansoni complications

Histological study on the effect of furosemide on renal cortex of mice with hepatic fibrosis Secondary to schistosoma mansoni infection.

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Keywords: Liver Cirrhosis; Furosemide-adverse effects; Kidney Cortex- ultrastructure; Microscopy, Electron; Mouse

Abstract: Schistosoma mansoni is a documented factor for the acquisition of hepatic fibrosis, with further edema and ascites. Recent researches suggested that diuretic treatment in patients with hepatic fibrosis could result in renal impairment. To evaluate the changes in renal cortex after injection of furosemide in mice with hepatic fibrosis secondary to Schistosoma mansoni infection. Sixteen adult male mice were divided into 2 groups. Non-infected mice [group I], were further subdivided into two subgroups [a and b]. Subgroup [Ia] mice were untreated and subjected as negative controls while subgroup [II] mice were injected daily with furosemide for 14 successive days. The other 8 mice [group II], were infected with Schistosoma mansoni and left for 8 weeks for induction of hepatic fibrosis. Then, group II mice were subdivided into two subgroups [a and b]. Subgroup [IIa] mice were untreated and served as positive controls for liver fibrosis. Mice of subgroup [IIb] were injected with the same dose of furosemide for successive 14 days. All animals were sacrificed and samples from livers and kidneys were collected, stained and examined. Mice of subgroup [IIa] showed focal glomerular changes in the form of either proliferation or atrophy. Fusion of foot processes of podocytes with deposition of dense bodies appeared with electron microscopic study. Mice of subgroup [IIb] showed massive glomerular and tubular damage. Glomerular capillary obliteration, subendothelial humps, destructed foot processes and cellular vacuolations were manifested. Renal tubules showed destructed microvilli and cellular damage. Interstitial lymphocytic infiltration and interstitial renal fibrosis were also demonstrated. Furosemide possessed renal cortical damaging effect when administered in mice with hepatic fibrosis.

Seizures diagnosis

Clinical spectrum of post-stroke seizures.

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Institute for Postgraduate Medical Studies and Health Sciences - Department of Neurology


Keywords: Stroke-complications; Hypertension-epidemiology; Time Factors; Brain Ischemia-epidemiology; Comorbidity

Abstract: To determine the characteristics of post-stroke seizures and compare these in early vs. late post-stroke seizures. Observational study. Department of Neurology, Liaquat National Hospital, Karachi, from March to September 2007. All admitted patients aged over 25 years, with diagnosis of post-stroke seizures were included. Those with known epilepsy, sepsis and electrolyte imbalance were excluded. Age, co-morbid condition, details of seizures and radiological findings regarding type and location of stroke were collected and entered in a pre-formed proforma. Results were described as frequency and mean. Association of variables was determined through chi-square test with significance at p < 0.05. Out of the 50 patients, there were 28 [56%] males and 22 [44%] females with the mean age of 56.86 +/- 15.26 years. Thirty-one [62%] patients had history of hypertension. Early seizures i.e. within 2 weeks were seen in 29 [58%] patients. Generalized seizures were seen more frequently i.e. in 37 [74%] patients. Thirty-one [62%] subjects experienced more than 2 seizures. Forty [80%] had an ischemic stroke including 36 [72%] arterial infarct and 3 [6%] venous infarcts. Intracerebral hematoma was seen in 10 [20%] of subjects. Comparison between early and late onset seizures revealed significant association between ischemic heart disease [IHD], old stroke, hypertension and late onset seizures [p < 0.05]. Post-stroke seizures were more frequent in males, with history of hypertension, and with cortical ischemic strokes. Early seizures, multiple episodes and generalized seizure type were more common. Venous infarcts were chiefly associated with seizures at presentation. History of old stroke, ischemic heart disease, hypertension and hypercholesterolemia showed a strong relationship with the occurrence of late onset seizures.
Semen

drug effects

Improvement of semen quality in holstein bulls during heat stress by dietary supplementation of omega-3 fatty acids.
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Islamic Azad University - Department of Animal Science
IJFS - International Journal of Fertility and Sterility 2011; 4 (4): 160-167 (38 ref.)
Keywords: Fatty Acids, Omega-3-therapeutic use; Semen Preservation; In Vitro; Dietary Supplements
Abstract: Long-chain polyunsaturated fatty acids [PUFAs] of the omega-3 family are important for sperm membrane integrity, sperm motility and viability. There are evidences to suggest that dietary supplementation with omega-3 fatty acids affects reproduction in men and males of different animal species. Therefore, the aim of current study was to investigate changes in the quality parameters of Holstein bull semen during heat stress and the effect of feeding a source of omega-3 fatty acids during this period. Samples were obtained from 19 Holstein bulls during the expected time of heat stress in Iran [June to September 2009]. Control group [n=10] were fed a standard concentrate feed while the treatment group [n=9] had this feed top dressed with 100 g of an omega-3 enriched nutriceutical. Semen volume, sperm concentration and total sperm production were evaluated on ejaculates collected after 1, 5, 9 and 12 weeks of supplementation. Moreover, computer-assisted assessment of sperm motility, viability [eosin-nigrosin] and hypo-osmotic swelling test [HOST] were conducted. Heat stress affected sperm quality parameters by weeks five and nine of the study [p<0.05]. Supplementation significantly increased total motility, progressive motility, HOST-positive spermatozoa and average path velocity in the fresh semen of bulls [p<0.05]. Dietary omega-3 supplementation improved in vitro quality and motility parameters of fresh semen in Holstein bulls. However, this effect was not evident in frozen-thawed semen.

Semen Preservation

methods

Effects of tyrode's solution osmolarities and milk on bull sperm storage above zero temperatures.
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Shahid Charman University of Ahvaz - Faculty of Veterinary Medicine - Department of Clinical Sciences
Keywords: Isotonic Solutions; Osmolar Concentration; Milk; Cattle; Spermatozoa; Sperm Motility
Abstract: Control of the medium osmolarity and temperature during long or short time sperm manipulation is essential. The objectives of the present study were to find the effects of different osmolarities of modified Tyrode's solution and milk on the bull sperm during incubation at above zero temperatures. Semen samples were collected twice from five Najdi bull. Centrifuged and most parts of seminal plasma were removed. First experiment: The concentrated semen were split into nine aliquots to incubate in three different osmolarities [200, 300 and 400 mOsm] at three temperatures [5, 25 and 39°C] for 15 and 60 min of incubation. Second experiment: The semen samples were split, mixed with the same volume of whole cow milk [5 and 25°C] and milk with 7% glycerol [5°C] and incubated for 15 and 60 min. Sperm motility severely affected [p<0.05] by incubation at low ionic tension [200 mOsm/l] especially at low temperature [5°C]. The impact of low osmolarity on sperm viability can reduce by increasing the incubation temperature to 39°C. The decreased sperm motility, which was induced by lowering osmolarity, was not improved [p>0.05] by increasing temperature during 1 h of incubation. Milk can protect the sperm viability and motility at cool conditions and there is no beneficial effect of glycerol in combination of milk on sperm incubation at above zero temperatures [p<0.05]. Iso- and hyper-osmotic solutions protect bull sperm motility and viability at 25 and 39°C, while milk can be used for protecting sperm at 5°C.
Sick Leave

statistics and numerical data

Under utilization of sick leave by the physicians - jeopardizing health care?.
Khalid, Umair; Juma, Amyn Abdul Malik
E-mail: ayan.malik@gamil.com
JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 257 (3 ref.)
Keywords: Cross Infection-epidemiology; Physicians-statistics and numerical data; Health Status

Skin Diseases

Associated cutaneous diseases in obese adult patients: a prospective study from a skin referral care center.
Al Mutairi, Nawaf
Kuwait University - Faculty of Medicine - Department of Medicine
Medical Principles and Practice 2011; 20 (3): 248-252 (27 ref.)
Keywords: Obesity-pathology; Skin Manifestations; Referral and Consultation; Prospective Studies; Acanthosis Nigricans; Diabetes Mellitus
Abstract: The aim of the present study was to determine the spectrum of skin diseases seen among adult obese patients referred to Farwaniya Hospital. A total of 437 overweight/obese subjects [200 men and 237 women] aged 18-74 years were enrolled in the study, which was conducted from October 2008 to November 2009. Demographic details such as age, sex, occupation, personal and family history of diabetes mellitus, hypertension, and obesity were recorded. A thorough examination was performed by an experienced dermatologist [N.A.M.]. Blood investigations such as complete blood count, fasting and postprandial blood sugar levels, liver function tests, kidney function tests, lipid profile, and thyroid function tests were done for all patients in addition to hormonal assay and abdominal sonar to exclude polycystic ovary disease for indicated patients. Common skin diseases found among these patients were plantar hyperkeratosis: n = 197; acanthosis nigricans: n = 144; skin tags: n = 131; striae cutis distensae: n = 102; intertrigo: n = 97; acne vulgaris: n = 94. Diabetes mellitus was diagnosed in 87 patients, polycystic ovary syndrome/hyperandrogenism in 74 female patients, and hyperlipidemia in 209 patients. This study shows that certain dermatoses such as plantar hyperkeratosis, acanthosis nigricans, skin tags, striae cutis distensae, and intertrigo are more common among obese persons. Some, such as plantar hyperkeratosis, could serve as markers of obesity and its severity, while the presence of acanthosis nigricans and skin tags may point to underlying internal disease such as diabetes and polycystic ovary syndrome.

Sleep Medicine Specialty

Sleep medicine in Saudi Arabia: current problems and future challenges.
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King Saud University - College of Medicine - Department of Medicine
Annals of Thoracic Medicine 2011; 6 (1): 3-10 (83 ref.)
Keywords: Sleep Disorders
Abstract: Sleep medicine is a relatively new specialty in the medical community. The practice of sleep medicine in Saudi Arabia [KSA] began in the mid to late nineties. Since its inception, the specialty has grown, and the number of specialists has increased. Nevertheless, sleep medicine is still underdeveloped in the KSA, particularly in the areas of clinical service, education, training and research. Based on available data, it appears that sleep disorders are prevalent among Saudis, and the demand for sleep medicine service is expected to rise significantly in the near future. A number of obstacles have been defined that hinder the progress of the specialty, including a lack of trained technicians, specialists and funding. Awareness about sleep disorders and their serious consequences is low among health care workers, health care authorities, insurance companies and the general public. A major challenge for the future is penetrating the educational system at all levels to demonstrate the high prevalence and serious consequences of sleep disorders. To attain adequate numbers of staff and facilities, the education and training of health care professionals at the level of sleep medicine specialists and sleep technologists is another important challenge that faces the specialty. This review discusses the current position of sleep medicine as a specialty in the KSA and the expected challenges of the future. In addition, it will guide clinicians interested in setting up new sleep medicine services in the KSA or other developing countries through the potential obstacles that may face them in this endeavor.
Smoking

Smoking, once again.
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King Faisal Specialist and Research Centre
Annals of Thoracic Medicine 2011; 6 (1): 46 (4 ref.)

Smoking Cessation

Preparedness for the smoking cessation role among health sciences students in Kuwait.
Waheedi, Mohammad; Al Tmimy, Aisha M.; Enlund, Hannes
Kuwait University - Faculty of Pharmacy - Department of Pharmacy Practice
Medical Principles and Practice 2011; 20 (3): 237-243 (31 ref.)
Keywords: Attitude to Health; Students, Pharmacy-psychology; Questionnaires; Smoking-prevention and control; Sex Factors
Abstract: Our aim was to assess students' preparedness for the smoking cessation role after a teaching module on tobacco cessation and to assess the relationship between smoking status and preparedness. Pharmacy students attended a 4-hour module on the role of health professionals in smoking cessation based on the rx for change training program. Two years after the first introduction of the module, a questionnaire on preparedness and smoking status was filled in by 64 pharmacy students who had attended the module and 243 students from other health sciences that had not been exposed to the module. Preparedness scores for the smoking cessation role for pharmacy students were significantly higher [mean = 19.5, n = 63] for the nonsmoking pharmacy students compared to other nonsmoking students in medicine [mean = 16.2, n = 149], dentistry [mean = 16.1, n = 40] and physical therapy [mean = 14.9, n = 16] [p = 0.009]. The smoking prevalence was 3% among all females and 31% among all males. Smoking students were significantly less likely [p = 0.031] to agree that it is their professional responsibility to help patients quit smoking. Significant and long-lasting differences in students' perception of preparedness for the smoking cessation role based on exposure to a short teaching module were demonstrated. Furthermore, our results support previous findings that smoking compromises attitude towards helping smokers to quit.

Snake Venoms

What dose of anti-snake venom should be given in severe neuroparalytic snake bite?.
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Chattrapati Shahuji Maharaj Medical University - Department of Internal Medicine
Keywords: Snake Bites; Cobra; Bungarus; Cobra Neurotoxin Proteins; Bungarotoxins; Respiratory Insufficiency

Solar Energy

Institutional scale operational symbiosis of photovoltaic and cogeneration energy systems.
Mostofi, M.; Nosrat, A.H.; Pearce, J.M.
Islamic Azad University - East Tehran Branch - Department of Mechanical Engineering
International Journal of Environmental Science and Technology 2011; 8 (1): 31-44 (48 ref.)
Keywords: Symbiosis
Abstract: Due to the negative environmental effects of fossil fuel combustion, there is a growing interest in both improved efficiency in energy management and a large-scale transition to renewable energy systems. Using both of these strategies, a large institutional-scale hybrid energy system is proposed here, which incorporates both solar photovoltaic energy conversion to supply renewable energy and cogeneration to improve efficiency. In this case, the photovoltaic reduces the run time for the cogeneration to meet load, particularly in peaking air conditioning times. In turn, however, the cogeneration system is used to provide power back up for the photovoltaic during the night and adverse weather conditions. To illustrate the operational symbiosis between these two technical systems, this study provides a case study of a hybrid photovoltaic and cogeneration system for the Taleghani hospital in Tehran. Three design scenarios using only existing technologies for such a hybrid system are considered here: 1] single cogeneration + photovoltaic, 2] double cogeneration + photovoltaic, 3] single cogeneration + photovoltaic + storage. Numerical
simulations for photovoltaic and cogeneration performance both before and after incorporating improved thermal energy management and high efficiency lighting were considered. The results show that the total amount of natural gas required to provide for the hospitals needs could be lowered from the current status by 55% for scenario 1 and 62% for both scenarios 2 and 3, respectively. This significant improvement in natural gas consumption illustrates the potential of hybridizing solar photovoltaic systems and cogeneration systems on a large scale.

**Spirometry**

**standards**

Prediction equation for spirometric parameters in Egyptian adult population.
Abdel Hafeez, Azza S.; Sayyed, Hayam G.; Anawr, Mamdoh M.
Assiut University - Faculty of Medicine - Department of Physiology
**Assiut Medical Journal** 2010; 34 (3): 125-138 (43 ref.)
**Keywords:** Respiratory Function Tests; Reference Values; Adult; Anthropometry; Questionnaires

**Abstract:** Many factors affecting the lung functions, directly or indirectly, including anthropometric values, nutritional state, and body mass index. The aim of this study [First study in middle Egypt, Assiut governorate.] was depending on estimation of prediction equation reference; establish normal spirometric values with age from 20-45 years in both genders. Furthermore, comparing our result with previous studies in our Arabic area as well as US population. The prediction equation in Assiut area governorate is including the height besides, age and weight. From results, it was found that the spirometric values and the prediction equation in males are better than females. It is in agreement with Jordanian male but less in females. While our results in both males and females is less than US' population. It is concluded that prediction equation in our area in Egypt is including weight and the spirometric values in females is less than males. These results are in agreement with other Arabic studies [Jordanian rather than Omani,] and are less than US' population which may be due to differences in anthropometric features, genetics as well as dietary habits.

**Stents**

In-stent restenosis of innominate artery with critical stenosis of right internal carotid artery.
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National Institute of Heart Diseases - Department of Cardiology
**JCPSP - Journal of the College of Physicians and Surgeons Pakistan** 2011; 21 (4): 239-241 (10 ref.)
**Keywords:** Carotid Stenosis-therapy; Balloon Dilation; Brachiocephalic Trunk-pathology; Carotid Artery, Internal-pathology; Constriction, Pathologic; Embolic Protection Devices; Intracranial Embolism-prevention and control; Aortitis-therapy

**Abstract:** A lady with aortitis syndrome developed in-stent restenosis [ISR] of the innominate artery stent and critical stenosis of right internal carotid artery. The therapeutic challenge was gaining access to the carotid vessel, after treating the innominate artery ISR and all the while using distal protection to circumvent potential cerebral embolism. Percutaneous transluminal angioplasty [PTA] with or without stenting is a safe therapeutic option for re-vascularization of the supra aortic vessels. In the event of re-stenosis, re-treatment with PTA and stenting is safe. Ample evidence-base exists now for carotid artery stenting [CAS] in preference to carotid endarterectomy in patients with stenotic lesions of the carotid vessels.

**Streptococcus agalactiae**

**isolation and purification**

Carriage rate of group B streptococci in pregnant women in three teaching hospitals in Shiraz, Iran.
Hassanzadeh, Parvin; Motamedifar, Mohammad; Gharaghani, Maral Namdari
Shiraz University - School of Science - Department of Biology
**Medical Principles and Practice** 2011; 20 (3): 277-282 (27 ref.)
**Keywords:** Carrier State-microbiology; Streptococcal Infections-epidemiology; Vagina-microbiology; Pregnancy Complications, Infectious-microbiology; Culture Media; Rectum-microbiology

**Abstract:** The main goal of this study was to assess differences in the vaginal flora of pregnant women and provide a detailed evaluation of vaginal swabs for the presence of group B streptococcus [GBS] and other organisms in three teaching hospitals in Shiraz, southwest of Iran. In a cross-sectional study from April 2006 to March 2007, 310 women with vaginal delivery at three obstetric wards of teaching hospitals in Shiraz were studied. Swab specimens from the
vagina and rectum were collected and were examined bacteriologically. All of the newborns were followed up for 3 months. Of 310 pregnant women, 43 [13.8%] were colonized with GBS. There were no differences between GBS carriers and GBS-negative women in risk factors like preterm rupture of membranes [$p = 0.77$] and preterm labor [$p = 0.53$]. One neonate was hospitalized due to meningitis and GBS was detected in CSF culture and Gram staining. Our data showed that the prevalence of GBS carriage rate in pregnant women in Shiraz, Iran was high. The poor correlation between risk factors and GBS carriage requires further investigation in larger groups.

**Stroke**

**epidemiology**

*Can we stop the stroke epidemic in Pakistan?.
Khatri, Ismail A; Wasay, Mohammad
Shifa International Hospital - Department of Neurology
JCPSP - Journal of the College of Physicians and Surgeons Pakistan 2011; 21 (4): 195-196 (15 ref.)

**Keywords:** Risk Factors; Stroke-prevention and control

**Surgical Stomas**

*MONTI as continent catheterized stoma using serosal-lined trough “Ghoneim Abolenin” technique in ileocystoplasty.*
Sammour, Mohammed T.; Bin Ajjaj, Abdulbari
King Abdul Aziz National Guard Hospital - Department of Urology
Urology Annals 2011; 3 (1): 33-35 (3 ref.)

**Keywords:** Urinary Reservoirs, Continent; Urinary Diversion; Urinary Bladder, Neurogenic; Meningomyelocele

**Abstract:** It is a great challenge to select and perform continent mechanism in a stoma for urinary reservoir. A new technique by combining MONTI ileal conduit with the serosal lined trough in order to achieve continent catheterizable stoma to the umbilicus as a part of augmentation ileocystoplasty. We applied serosal-lined trough as a continent mechanism with MONTI ileal tube in 12 years smart girl underwent ileocystoplasty for neuropathic bladder due to myelomeningocele in whom continence failed to be achieved by using Mitrofanoff with submucosal tunnel of the bladder as continent mechanism before, also the previous operation included left to right transuretero-ureterostomy, ureterocystoplasty and reimplantation of the right ureter. The patient became completely continent; she was able to do self-catheterization easily through the umbilical stoma using 16-French catheter and was able to wash the mucous easily. The capacity of the augmented bladder was 300ccs. She became independent from her mother and stopped using diapers, anticholinergic and antibiotics. Combining MONTI conduit with serosal-lined extramural valve trough [The Ghoneim technique] is an effective continent technique and gives wider channel for catheterization and washing out the mucous.

**Tendons**

**transplantation**

*Morphology of grafted tendon comparative study of first stage silicone rubber rod implantation.*
Jafri, Shahzada M.H.; Shahzad, Khubaib; Qadri, Anjum Anway; Bukhari, Mulazim Hussain
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Near Combined Military Hospital

**Keywords:** Tendon Injuries-surgery; Transplants; Treatment Outcome

**Abstract:** This is the first research done to explore the morphologic changes in two stage tendon grafting as compared to one stage tendon grafting. To compare morphology of grafted tendons with and with out first stage silicon rubber rod implantation. Comparative experimental study. 1994-2007. 30 patients were included in this study. They was divided into 3 groups. Group 1 underwent 2 stage tendon grafting group 2 was used as control morphological study of tendons. Group 1 [1-stage] tendon grafting showed degeneration and fibrous reaction as morphological changes. Group 2. [2 Stage] appeared as normal tendons morphologically. This study concludes that instead of direct tendon grafting, two stage tendon grafting is recommended.
Tennis Elbow

drug therapy

Lateral epicondylitis; steroid injections for the management.
Choudhary, Khuala Ashraf; Hanif, Saquib; Rathore, M. Farooq Azam; Rashid, Maqsood ul Hasan
Armed Forces Institute of Rehabilitation Medicine
Keywords: Triamcinolone-therapeutic use; Diclofenac-therapeutic use; Treatment Outcome
Abstract: To find out effectiveness of steroid injection for early management of lateral epicondylitis. One hundred and twenty Patients of both genders presenting with unilateral lateral epicondylitis of less than two weeks duration reporting at Outpatient Department at Armed Forces Institute of Rehabilitation Medicine, Rawalpindi. Quasi experimental study. Out patient department of Armed Forces Institute of Rehabilitation Medicine, which is the largest rehabilitation facility in the country at present offering a multidisciplinary approach in the management of disability and musculoskeletal disorders17. 01 yrs. Both groups had sixty cases each with a mean age of 35.1 +/- 6.22 and 36.08 +/- 5.98 respectively. There were 54[45%] males and 66[55%] females. At four weeks and three months follow up assessments there was significant improvement in pain relief and pain free grip strength in the Group A[steroids] as compared to Group B [NSAIDs]. Local steroid injection is an effective treatment with an advantage over nonsteroidal anti-inflammatory drugs [Diclofenac]. It results in a rapid and better relief of symptoms, which is sustained over a period of three months.

Testis

Segmental testicular infarction following cysto-prostatectomy.
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St Mary's Hospital - Department of Urology
Urology Annals 2011; 3 (1): 42-43 (6 ref.)
Keywords: Cystectomy-adverse effects; Urinary Bladder Neoplasms; Prostatectomy-complications; Carcinoma, Transitional Cell; Spermatic Cord Torsion; Infarction; Magnetic Resonance Imaging; Ultrasonography, Doppler
Abstract: Segmental [partial] testicular infarction is a very rare condition of unknown cause in more than 70% of cases. Several predisposing conditions have been described, but to our knowledge, this is the first documented case and often overlooked complication occurring as a result of cysto-prostatectomy. It usually presents in an acute manner resembling testicular torsion or epididymo-orchitis and is confirmed using ultrasonography. In some cases, it may present insidiously with no pain and may be confused with a testicular tumor due to the hypo-echoic features on imaging. In unclear situations, Doppler sonography shows vascularity and a magnetic resonance scan can be useful to distinguish between the two conditions.

anatomy and histology

Histopathological patterns of testicular biopsy in male infertility: a retrospective study from a tertiary care center in the western part of Saudi Arabia.
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Urology Annals 2011; 3 (1): 19-23 (27 ref.)
Keywords: Biopsy; Infertility, Male; Testis-pathology; Retrospective Studies; Oligospermia; Spermatogenesis; Sertoli Cell-Only Syndrome; Seminiferous Tubules-abnormalities
Abstract: To identify and categorize various pathological changes seen in testicular biopsies of males with infertility and to compare the results with data from other local and international studies. All testicular biopsies from males with infertility received by the Pathology Department of King AbdulAziz University Hospital, Jeddah, in the period from January 2004 until May 2010 are reviewed and histopathologically classified into seven categories as follows : Normal spermatogenesis, hypospermatogenesis, germ cell maturation arrest [GCMA], Sertoli cell only syndrome, seminiferous tubule hyalinization, mixed and discordant patterns. One hundred testicular biopsies were identified in the computerized records of the Department of Pathology of King AbdulAziz University Hospital in the studied period. The age ranged from 22 to 70 years with a mean age of 24.5 years. The histopathological patterns were as follows: 14 [14%] cases were reported as normal spermatogenesis;[29, 29%] cases as hypospermatogenesis; and 12 [12%] cases
were reported as GCMA, mostly at the level of primary spermatocytes. The Sertoli cell only syndrome and the seminiferous tubule hyalinization categories were each reported in 16 cases [16%]. Nine cases [9%] showed a mixed pattern. Discordant pattern was seen in 5 [5%] cases. Our study showed that hypospermatogenesis is the commonest pattern in testicular biopsies taken from males with infertility in our region. This study supports the recommendation of bilateral testicular biopsies when investigating male infertility.

**ultrastructure**

A possible interaction between the smooth endoplasmic reticulum and the mitochondria in sertoli cells of adult rat testes.
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Ain Shams University - Faculty of Science - Zoology Department
*Egyptian Journal of Histology [The]* 2010; 33 (4): 808-818 (38 ref.)

**Keywords:** Microscopy, Electron; Sertoli Cells; Endoplasmic Reticulum, Smooth; Mitochondria; Rats; Adult

**Abstract:** Earlier reports indicated that the mitochondria are physically linked to the endoplasmic reticulum in liver cells, mouse embryonic fibroblasts, “HeLa” cells, melanocytes, skeletal muscle fibres and cardiac myocytes. This is the first-ever report on such relationship in Sertoli cells. It has been documented that lipid biosynthesis and calcium sequestration, as well as apoptosis, are critically regulated by the close association between the SER and mitochondria. The present work was carried out in order to disclose a possible association between the mitochondria and SER in Sertoli cells of rat testes. Testes of six normal adult rats were fixed in glutaraldehyde and post-fixed in osmium tetroxide, then sectioned and processed for ultrastructural examination. The electron micrographs showed that the tubular SER of Sertoli cells is closely attached to both sides of dumpy shaped mitochondria and also wrapped around the spherical mitochondria. Besides, the outer mitochondrial membrane [OMM] acquires terminal and lateral tubular or vesicular extensions. The terminal extensions of the outer mitochondrial membrane-which appear as long or short tubular prominences-that were seen in close contact with the ER. The present study suggests the presence of an intimate relationship between the smooth endoplasmic reticulum and the mitochondria of rat Sertoli cells, either through a marked contact between their intact membranes or through unwanted extensions of the outer mitochondrial membrane that target at the endoplasmic reticulum.

**Thiazines**

**adverse effects**

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**Keywords:** Anti-Inflammatory Agents, Non-Steroidal; Ketoprofen-adverse effects; Kidney-pathology; Gastric Mucosa-pathology; Histology; Kidney-ultrastructure; Microscopy, Electron; Gastric Mucosa-ultrastructure; Microscopy, Electron, Scanning; Rats; Comparative Study

**Abstract:** Ketoprofen is a widely used drug related to the group of the traditional non selective non-steroidal anti-inflammatory drugs [NSAIDs]. Meloxicam is related to the group of the cyclooxygenase-2 [COX-2] selective inhibitors which is a newer version of NSAIDs. To demonstrate and compare the effects of long-term administration of meloxicam and ketoprofen on the structure of the kidney and gastric mucosa in the healthy adult rats. A total number of 36 adult male albino rats were used in this study. They were equally divided into three groups. Group I was considered as a control. Group II included the rats treated with ketoprofen in a dose of 1mg/kg orally once daily for 10 weeks by a gastric tube. Group III included the rats treated with meloxicam in a dose of 0.2 mg/kg orally once daily for 10 weeks via gastric tube. At the end of the experiment animals were sacrificed and specimens of the kidney and stomach were processed for light and scanning electron microscopic studies. Some kidney specimens were also processed to be studied by transmission electron microscopy. The diameter of renal corpuscles was measured in the three studied groups and statistically analyzed. In ketoprofen treated rats [group II] the renal corpuscles exhibited marked shrinkage of glomeruli. Many renal tubules appeared to be lined with damaged epithelium. Ultrastructural study of the lining cells of the proximal and distal convoluted tubules revealed that the degenerative changes involved both the nucleus and the cytoplasmic organelles. The interstitial tissue had focal areas of fibrosis. In the meloxicam treated rats [group III], there was little shrinkage of the glomeruli. However, the interstitial tissue showed heavy cellular infiltration. SEM study revealed an enlargement of the processes of the podocytes with loss of their pedicles. The gastric mucosa in group II showed an extensive damage to the surface epithelial cells in the form of ulcers while in group III there was patchy
areas of epithelial destruction. This study demonstrated that long-term administration of COX-2 selective inhibitors exerted deleterious effects on the kidney comparable to those exerted by the nonselective NSAIDs. However, their damaging effect on the gastric mucosa appeared to be less than the nonselective NSAIDs but it was not abolished.

Thrombocytopenia

epidemiology

Thrombocytopenia; frequency and degree in patients with falciparum malaria.
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Northern Institute of Medical Sciences
Keywords: Malaria, Falciparum; Case-Control Studies
Abstract: Malaria is usually associated with reduction in blood cell counts and mild to moderate thrombocytopenia is a common feature of falciparum infection. This study has been conducted to find out frequency and degree of thrombocytopenia in patients suffering from falciparum malaria at a tertiary care hospital of Abbottabad. It was a descriptive case-control study being carried out at Ayub teaching hospital and Northern Institute of Medical Sciences [NIMS] Abbottabad over a period of ten months. All patients with acute febrile illness without localizing signs were considered for study. A total 250 patients having falciparum malaria diagnosed by peripheral blood film examination have been studied. Complete blood counts were performed by Automated Beckman Coulter Analyzer. Blood films were examined by clinical pathologist for plasmodium falciparum via light microscopy using oil-immersion lens. Out of 250 patients, 155 [62%] were females and 95[38%] males with M: F ratio of 1:1.5. Mean age was 36 +/- 1.2 years [range 17-58 years]. Out of 250, 175[70%] had thrombocytopenia [p<0.05] while 75 [30%] had normal platelet counts. Thus mild, moderate and severe thrombocytopenia had been observed in 121[48.4%], 41[16.4%] and 13[5.2%] respectively [p<0.05]. Fever appeared to be most common symptom observed in all patients [100%] followed by vomiting and nausea [88%]. Anemia was the commonest sign present [80%] during our study. We discovered high frequency of mild thrombocytopenia in falciparum malaria. Therefore, thrombocytopenia can be supportive in diagnosis of plasmodium falciparum infection.

Thyroglossal Cyst

complications

Thyroglossal sinus; demographic and anatomical features of thyroglossal sinus.
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Keywords: Thyroglossal Cyst-diagnosis; Thyroglossal Cyst-pathology; Prevalence
Abstract: To assess demographic and anatomical features of thyroglossal sinus. Descriptive. ENT department Allied Hospital Faisalabad. From Jan 2005 to June 2010. The patients were admitted through ENT out patient department. The data was collected on the basis of history, physical examination, investigations, management and follow up. Total 60 patients 35 males [58%] and 25 females [42%]. The majority of patients were from second decade of life 28 [47%]. The most common location of thyroglossal sinus was thyrohyoid 55 [92%]. The etiology of of thyroglossal sinus in majority of cases was iatrogenic 50 [83%]. The common clinical presentation was discharging sinus in the neck 60 [100%]. The histological diagnosis in all the cases was benign 60 [100%].All the patients were managed by Sistrunks operation 60 [100%].The recurrence was seen in 4 cases [07%]. The incidence of thyroid carcinoma was 00%. Overall success rate was 93%. The prevalence of thyroglossal sinus is quite considerable. The majority of cases are iatrogenic which means that more awareness is required about diagnosis and proper management of thyroglossal cyst. The incision and drainage of thyroglossal cyst should be avoided to prevent the development of thyroglossal sinus. In all the cases the specimen should be sent for histopathology to rule out the thyroid carcinoma.

Tobacco Use Disorder

Nicotine reliance in schizophrenic and bipolar disorder patients: a comparative study.
Abdel Gaber, Ahmed; Fathi, Seham; El Shafeae, Taghreed; Taha, Hala
Al Azhar University - Faculty of Medicine - Department of Psychiatry
Keywords: Bipolar Disorder; Schizophrenia; Comparative Study; Control Groups; Smoking

Abstract: We aimed to determine the prevalence of smoking and the severity of nicotine reliance in patients with schizophrenia and bipolar disorder and find the relationship between smoking status and some sociodemographic and clinical characteristics. A sample of consecutive admissions of all patients with schizophrenia [n=70] and bipolar disorder [n=46] admitted to psychiatric units of a private hospital over a period of three months was recruited. Patients were diagnosed according to DSM-IV. Demographic and clinical data were collected. The total sample [n=116, male 75.9%] was assessed as regards the cigarette smoking status and the age of initiation of smoking. For the smokers, the severity of nicotine reliance was assessed using the Fagerstrom tolerance scale. A control group [n=30] smokers, who were age and sex matched with the case smokers, were assessed for the severity of nicotine dependence. 58.6% of patients with schizophrenia were smokers [60% of them were dependent] compared to 32.6% of patients with bipolar disorder 93.8% were dependent]. In the total case sample, smokers differed significantly from non smokers as regards the diagnosis, sex and history of substance abuse and their age of initiation of smoking correlated with the age of onset of the disorder. 83.6% of cases that were current smokers initiated smoking at or before the onset of the disorder [72.7% before]. Schizophrenia smokers initiated smoking significantly earlier than control smokers denoting severer nicotine reliance but there were no significant difference between schizophrenia and bipolar smokers on the scale score. Nicotine reliance is higher in patients with schizophrenia and bipolar disorder compared to normal controls. Factors that is higher in patients with schizophrenia and bipolar disorder compared to normal controls.

Factors that influence cigarette smoking in psychiatric patients include diagnosis, sex and history of substance abuse. Age of initiation of smoking may be related to the onset of the disorder.

Trachea

surgery

Tracheal reconstruction by re-inforced Gore-Tex in esophageal submuscular tunneling: an experimental study.
Hodjati, Hossein; Baezzat, Saeed Reza; Fazelzadeh, Afsoon; Tanideh, Nader; Geramizadeh, Bita
Shiraz University of Medical - Department of Surgery
Annals of Thoracic Medicine 2011; 6 (1): 17-21 (22 ref.)

Keywords: Reconstructive Surgical Procedures; Polytetrafluoroethylene-therapeutic use; Dogs

Abstract: Tracheal reconstructions are aimed at rearranging or replacing parts of the tracheal tissue by different techniques. Here we introduce a new technique for tracheal reconstruction. In 10 adult dogs, after intubation with an endotracheal tube, a segment of trachea including seven tracheal rings was resected circumferentially. A submuscular tunnel was induced between mucosal and muscular layers of the adjacent esophagus lying right next to the trachea. The esophageal submuscular tunnel starts and ends exactly at the level of distal and proximal ends of tracheal resection, respectively. Inforced Gore-Tex passed through the esophageal submuscular tunnel the distal segment of trachea and end-to-end anastomosis were made between distal ends of Gore-Tex and trachea, then endotracheal tube removed and the same procedure was made for proximal ends of Gore-Tex and trachea. Afterward, the proximal and distal ends of the esophageal tunnel were approximated to proximal and distal tracheal parts over the anastomosis. All dogs, except one due to anesthetic problem, survived and tolerated the operation; the first two dogs experienced postoperative fever, aspiration pneumonia, and died due to tracheoesophageal fistula. All survived animals were eating and barking well. We started to scarify dogs at least 6 and 12 weeks after operation for microscopy and pathologic examination. The Gore-Texes were patent and supported externally with fibrous connective tissue in esophageal tunneling, with in growth of respiratory epithelium on inner surfaces. Air tightness, good re-epithelialization, and relatively no limitation of esophageal length and no risk of luminal collapse are advantages of tracheal reconstruction by submuscular esophageal tunneling. This new method is worthy of further investigation, as it is technically feasible and easy to implement.

Tracheoesophageal Fistula

Esophagobronchial fistula - a rare complication of aluminum phosphide poisoning.
Bhargava, Sumeet; Rastogi, Rajul; Agarwal, Ajay; Jindal, Gaurav
Yash Diagnostic Center
Annals of Thoracic Medicine 2011; 6 (1): 41-42 (6 ref.)

Keywords: Fistula; Aluminum Compounds-poisoning

Abstract: Aluminum phosphide is a systemic lethal poison. Fistulous communication between esophagus and airway tract [esophagorespiratory fistula] has rarely been reported in the survivors of aluminum phosphide poisoning. We report a case of benign esophagobronchial fistula secondary to aluminum phosphide poisoning, which to best of our knowledge has not been reported in the medical literature.
**Triazoles**

**therapeutic use**

Metformin-letrozole in comparison with metformin-clomiphene citrate in clomiphene-resistance PCOS patients undergoing IUI.

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**Keywords:** Metformin-therapeutic use; Clomiphene-therapeutic use; Polycystic Ovary Syndrome-drug therapy; Drug Therapy, Combination; Treatment Outcome

**Abstract:** Polycystic ovary syndrome [PCOS] is associated with approximately 75% of women who suffer from infertility due to anovulation. Additionally, around 20-25% of anovulatory women with PCOS do not respond at all to clomiphene citrate and are considered to be "clomiphene-resistant". Aromatase inhibitors have been suggested as an alternative treatment to clomiphene as the discrepancy between ovulation and pregnancy rates with clomiphene citrate has been attributed to its anti-estrogenic action and estrogen receptor depletion. The aim of this study is to compare results of Metformin-letrozole with Metformin-clomiphene citrate in clomiphene resistance PCOS patients undergoing IUI. In this single blind randomized trial, ovarian cycles were studied in 100 clomiphene- resistant patients with PCOS. The inclusion criteria were patients who received 150mg clomiphene citrate daily for 3 cycles and failed to become pregnant. The patients were matched for their age, body mass index [BMI], and infertility period. They were randomly allocated to a metformin-letrozole group [n=50] and a metformin-clomiphene citrate group [n=50]. Chemical and clinical pregnancies were assessed after IUI. Abortion rates were determined in both groups. Regarding pregnancy rate, there was no significant difference between the two groups. One miscarriage [2%] occurred in the metformin-clomiphene citrate group, whereas none was seen in the metformin-letrozole group. There is no significant difference in pregnancy rate between clomiphene citrate and letrozole groups although it has been 2% in the former and 5% in the latter.

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**Triticum**

Nutritional assessment of wheat biscuits and fortified wheat biscuits with oat flour.

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Ain Shams University - Faculty of Agriculture - Food Science and Technology Department

*New Egyptian Journal of Medicine [The]* 2010; 42 (4): 329-340 (47 ref.)

**Keywords:** Flour; Nutritive Value; Food Fortified; Avena sativa; Nutrition Assessment

**Abstract:** Oat flour is a nutritios food product with high potential applications as nutraceutical in functional and fortified foods. The present investigation was carried out in an attempt to clarify the nutritional assessment of wheat biscuits and fortified wheat biscuits with oat flour. The study included the determination of gross chemical composition, caloric value and minerals composition [Cu, Fe, K, Mg, Mn, Na, Ca, Se and P] as well as the amino acids composition of wheat biscuits and fortified wheat biscuits with oat flour. Likewise, physical characteristics and sensory characteristics of control [100% wheat flour biscuits] and fortified wheat biscuits with oat flour were assessed as well. The data revealed that incorporation of oat flour in wheat flour biscuits increased crude protein, ash, crude fiber, carbohydrate contents, and decreased moisture content and caloric value of fortified biscuits as well. However, 15% Syrian oat flour fortified biscuits recorded the highest protein content [7.22%], ash [0.90%], crude fiber [1.37%] and carbohydrate content [79.30%] on dry weight basis. Meanwhile, it recorded the least moisture content [4.15%] and the least caloric value [446.97 k.cal/100g biscuits]. However, the 15% Egyptian oat flour fortified biscuits recorded higher protein, ash, crude fiber and carbohydrates contents than that of the wheat biscuits as well as lower moisture and caloric value. Therefore, it could be concluded that the supplementation of control biscuits with 15% oat flour [both Egyptian and Syrian] enhanced the nutritive value in terms of its chemical constituents. Besides, the data revealed that 15% oat flour fortified biscuits had higher Cu, Fe, K, Mg, Mn, Ca and P contents than that in wheat flour biscuits. The most abundant minerals elements in wheat biscuits fortified with both 15% Egyptian and Syrian oat flours were P, K and Ca. Furthermore, the data revealed that 18 amino acids were detected in the three studied biscuits among them 8 represented the essential amino acids, namely: isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan and valine. Meanwhile, another 10 non essential amino acids were detected, namely: alanine, arginine, aspartic acid, cystine, glutamic acid, glycine, histidine, proline, serine and tyrosine. The data revealed that both 15% Egyptian and Syrian oat flour fortified biscuits contained a good balance of essential amino acids. Considering the spread factor of control biscuits as 100, the data recorded a gradual increment of spread rates as well as of spread factors of both Egyptian and Syrian fortified biscuits in all studied levels [5%, 10% and 15% oat flour, respectively]. Taking the sensory characteristics of biscuits in consideration both physical and sensory characteristics indicated the
best quality biscuits were fortified biscuits with 15% Egyptian oat flour and fortified biscuits with 15% Syrian oat flour compared with the control biscuits. In conclusion, both 15% Egyptian and Syrian oat flours fortified biscuits proved that they are nutritious functional food gaining renewed interest as oat flour is a food component with high protein, high carbohydrate, high crude fiber and low fat as well as high level of all the nine studied minerals; and good balance of the essential amino acids required for human nutrition. Moreover, wheat flour fortified biscuits with 15% oat flour could be recommended for caloric reduced diets for obese and overweight persons as well as for diabetic persons due to its lower glycemic response because of its rich beta-glucan having the potential impact on the maintenance of human health.

Tuberculosis
diagnosis

Primary pancreatic tuberculosis mimicking neoplasm.
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King Abdulaziz University Hospital - Departments of Pathology and Surgery
Keywords: Pancreas; Pancreatitis; Pancreatic Neoplasms-pathology; Diagnosis, Differential; Laparotomy
Abstract: Tuberculosis of the pancreas is extremely rare. Diagnosis of primary tuberculosis of the pancreas is often missed, because of very low prevalence and as most of the time it mimics pancreatic tumors. We searched for the cases of tuberculous pancreatitis [TP] among all the patients who underwent exploratory laparotomy or Whipple procedure for a pancreatic mass at King Faisal Specialist Hospital, Jeddah. We review the clinical, radiological and pathological findings of those cases together with a literature review. Three cases of TP were identified; two males and one female. The age of the patients is 56, 63 and 69 years. All the patients presented with obstructive jaundice and had laparotomy for pancreatic mass. Frozen and permanent sections evaluation revealed necrotizing granulomatous inflammation that is consistent with TB that was confirmed by microbiology culture. All the patients received post operative antituberculous treatment and all are in a good condition after 1-2 years of follow-up. We conclude that although TP is very rare entity, it should be considered in the differential diagnosis in patients who present with a pancreatic mass. Frozen sections evaluation at laparotomy is usually helpful for confirmation of the diagnosis and providing material for mycobacterial culture.

Tuberculosis, Pulmonary
radiography

Pulmonary tuberculosis; age related radiological findings.
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Quaid i Azam Medical College
Keywords: Tuberculosis, Pulmonary-diagnosis; Age Factors; Cross-Sectional Studies
Abstract: To study the age related radiological finding in pulmonary tuberculosis. Across sectional study. From January 2009 to December 2009 pulmonary department of Bahawal Victoria Hospital Bahawal Pur. The cases diagnosed as pulmonary tuberculosis of either gender above age of 12 years were included in the study. Patients suffering from extra pulmonary tuberculosis, treatment failure, relapse, drug resistant tuberculosis and HIV seropositive patients were excluded from the study. Patients were divided into groups according to the age. Group 1 consist of patients having age >/=50years while group 2 consist of patients having <50 years. Data was recorded on the Proforma and was analyzed statistically on SPSS 11. this study consists of 106 patients and divided into two groups. It has been found that apical zone of lung involvement was more common in patients younger than 50 years while involvement of lower zone was more common in patients with age >/=50years. No significant difference was found regarding the involvement of middle zone, multiple zones and the type of lesions as the p-value was >0.05. The elderly patients with pulmonary tuberculosis have predominant involvement of lower zones. So, lower zone involvement of radiological lesions should be evaluated for pulmonary tuberculosis to start the treatment earlier and to minimize the risk of missing the diagnosis.
Ulcerative Colitis

chemically induced

Effect of omega-3 versus omega-6 fatty acids on induced ulcerative colitis in male albino rat. Light and electron microscopic study.
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Keywords: Protective Agents; Fatty Acids, Omega-3-therapeutic use; Fatty Acids, Omega-6-therapeutic use; Rats; Colon-ultrastructure; Microscopy, Electron; Treatment Outcome; Comparative Study
Abstract: Ulcerative colitis [UC] is an inflammatory bowel disease [IBD] well known by its exacerbated immune response. At present, a specific causal treatment for IBD is not available. The drugs currently used for management of IBD unfortunately are not devoid of potentially serious side effects. Polyunsaturated fatty acids [PUFAS] as omega-3 and omega-6 were reported to have immunomodulatory activities. Hence, may be of benefit in treating UC. The goal of this study was to illustrate the effect of omega-3 and omega-6 fatty acids on ulcerative colitis induced in male albino rat. Thirty adult male albino rats were used in the study. They were divided into four groups; Group I served as a control group. Group II was used as a model of ulcerative colitis. Rats of this group were subjected to intracolonic enema injection of 1 ml of 2% acetic acid for three consecutive days. Group III and group IV were subjected to colitis induction and on the fourth day, daily oral administration of omega-3 and omega-6 was done respectively for 14 days. All rats were sacrificed on day 17 from the beginning of the experiment. Colon specimens were collected and processed for light microscopic, scanning and transmission electron microscopic examination. Ulcerative colitis induction showed mucosal injury. There were patchy areas with loss of crypt architecture, inflammatory cell infiltrate and ulcerated mucosa. Scanning electron microscopic study revealed areas of ulceration, whereas other areas showed alteration of the columnar absorptive cells. Transmission electron microscopic study revealed loss of apical microvilli of enterocytes with signs of degeneration. Administration of omega-3 completely treated the colonic structure, while omega-6 was by far less efficient in treating induced ulcerative colitis. Omega-6 fatty acids partially improved the colon against ulcer induction. Meanwhile, omega-3 fatty acid proved to be a more effective dietary management of ulcerative colitis without the adverse effects of either surgery or medications.

Urbanization

Urbanization impact on metals mobility in riverine suspended sediment: role of metal oxides.
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Keywords: Water Pollution; Water Pollution, Chemical; Water Pollutants; Water Pollutants, Chemical; Carbonates; Geologic Sediments
Abstract: Spatial and temporal fractionation of trace metals and major elements in suspended particulate matter in the Seine River was investigated to study the impact of the increasing urbanization in the Greater Paris Region. Suspended sediments in the Seine River were collected between December 2008 to August 2009 upstream and downstream of Paris. They were subjected to total digestion and sequential extraction procedure certified by the Bureau Communautaire de Reference and trace metals along with major elements were analyzed with inductively coupled plasma mass spectroscopy. Metal enrichment factors increased up to eight folds after the Seine River downstream of the Greater Paris Region showing a significant contribution of urbanization. Enrichment of copper, lead and zinc downstream of Paris is followed by the increase of their reducible fraction of at least 10% implicating an increase in metals associated with iron oxides. The exchangeable fraction, which includes the carbonate-associated metals, is only significant for cadmium, nickel and zinc [more than 2%] while the oxidisable fraction accounts for less than 20% for the anthropogenic metals downstream except for copper. The metals can be divided to [a] “reducible” group including cadmium, lead, and zinc, associated with more than 60% of the total Bureau Communautaire de Reference extractable metals to the reducible fraction containing mostly iron oxide phases for the downstream sites. [b] A “distributed” group including chromium, copper, and nickel that are associated to at least 3 different phase-groups: [1] oxides, [2] organic matter and sulphides and [3] mineral phases.
Urinary Bladder Neoplasms

Prognostic significance of P27 [Kip 1] and MUC1 in papillary transitional cell carcinoma of the urinary bladder.
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Benha University - Benha Faculty of Medicine - Department of Histopathology
Urology Annals 2011; 3 (1): 8-13 (28 ref.)
Keywords: Carcinoma, Transitional Cell; Cyclin-Dependent Kinase Inhibitor p27; Mucin-1; Immunohistochemistry; Retrospective Studies
Abstract: To examine p27 [Kip 1] and MUC1 expression in specimens of papillary transitional cell carcinoma [PTCC] of the urinary bladder and to correlate their expression with the tumor grades, stages and outcome. Paraffin sections from previously diagnosed PTCC bladder were graded, staged and the patients were followed up for 5 years. Ten non-neoplastic urological lesions diagnosed as polypoid cystitis were taken as control. Three sections of 4 um thickness were obtained from every case. One was hematoxylin and eosin [H and E] stained for diagnosis, reviewing and confirmation. The other two sections were immunohistochemically stained for both p27and MUC1. The data of immunohistochemical results were correlated with the following conventional prognostic variables: tumor grade, stage, distant metastasis and 5 year survival. The results showed a highly significant and an insignificant relationship between p27 expression and tumor grade and stage [P<0.01 and P>0.05], respectively. Correlating p27 expression with distant metastasis and overall survival showed a significant relationship with distant metastasis [P<0.05] and a highly significant one with overall survival [P<0.01]. The results showed also a significant relationship between MUC1 expression and both tumor grade [P<0.01] and overall survival [P<0.05]. p27 and MUC1 immunohistochemistry augment the classic histochemistry for the prognosis of PTCC of the bladder as well as improving the prediction of the patient outcome and survival.

Evaluation of expression and prognostic values of survivin and Ki67 in bladder carcinoma.
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Assiut University - Faculty of Medicine - Department of Pathology
Assiut Medical Journal 2010; 34 (3): 217-227 (32 ref.)
Keywords: Immunohistochemistry; Inhibitor of Apoptosis Proteins; Mitochondrial Proteins; Disease Progression; Prognosis
Abstract: Survivin is a member of the inhibitor of apoptosis family that inhibit apoptosis controls mitotic progression and induces tumour cell invasion. Our objectives were to evaluate the association of survivin expression in the various types of bladder cancer and the clinical outcome. Immunohistochemical staining for survivin and ki67 was performed on 5 normal bladder and 51 patients: 9 cases had PNTCC [papillary non infiltrating transitional cell carcinoma], 16 had invasive TCC [transitional cell carcinoma], 10 had TCC with squamous differentiation and 16 had SCC [squamous cell carcinoma] among the 51 patients examined there were 10 known recurrent cases. Survivin and Ki67 were not expressed in normal bladder urothelium.Survivin was over expressed with higher tumour grade in both TCC [p=0.05] and SCC [p=0.04] and with high tumour stage in TCC [p=0.004]. Survivin expression might help identify patients of bladder carcinoma at high risk of disease recurrence and progression who would benefit from closer follow-up or more aggressive therapy.

Urinary Bladder, Neurogenic

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Urology Annals 2011; 3 (1): 24-28 (21 ref.)
Keywords: Spinal Cord Injuries; Meningomyelocele; Cross-Sectional Studies; Questionnaires
Abstract: The aim of this study is to determine the current trends in the management and surveillance of the NB population secondary to spinal cord injury [SCI] or myelomeningocele by certified urologist working in Saudi Arabia and to compare it to the current guidelines. A cross-sectional study was conducted using a 12-points questionnaire distributed to urologists working in Saudi Arabia and registered at the Saudi medical association. The assessment and follow-up of upper and lower urinary tract function in neurogenic bladder patients, their optimal frequency and management of related infections were the topics of inquiry. Of the 272 urologists surveyed, 105 responded, yielding a response rate of 38%. Eighty-nine percent of respondents said that ultrasound was their diagnostic tool of choice for upper tract evaluation. Sixty-one percent of respondents said that they would follow their patients with a multichannel urodynamic study. Forty percent of urologists stated that they would treat asymptomatic bacteriuria. Clean intermittent
catheterization [CIC] was the most common modality chosen for the management of neurogenic bladder in patients with emptying difficulties. This study confirms that most urologists in Saudi Arabia involved with neurogenic bladder management. However, more than one third of the urologists do not have urodynamic machine and only two of the reporting practitioners has a videourodynamic machine. The results emphasize the need for clear guidelines in this field of urology in Saudi Arabia. Highly specialized rehabilitation centers for neurogenic bladder secondary to SCI are required for optimal care and urologist teaching.

**Urinary Bladder, Overactive**

**Effect of caffeine on bladder function in patients with overactive bladder symptoms.**

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*Urology Annals* 2011; 3 (1): 14-18 (20 ref.)

**Keywords:** Caffeine; Urinary Bladder-drug effects; Urodynamics

**Abstract:** To evaluate the effect of caffeine at the dose of 4.5 mg/kg on bladder function in overactive bladder [OAB] adults. Nine women and three men aged 21-40 years with OAB symptoms were included. Each subject drank 8 ml/kg of water with and without caffeine at two separate sessions. Cystometry and uroflowmetry were performed 30 minutes after each drink. The effects of caffeine on urodynamic parameters were compared. After caffeine ingestion, the mean volume at bladder filling phase decreased at first desire to void and normal desire to void [P<0.05], compared to the mean volume after taking water [control] drink. The mean volume at strong desire to void, urgency and maximum cystometric capacity also tended to decrease. No change in the detrusor pressure at filling phase was found. At voiding phase, the maximal flow rate, average flow rate and voided volume were increased [P<0.05]. The urine flow time and time to maximal flow rate were not changed. Caffeine at 4.5 mg/kg caused diuresis and decreased the threshold of sensation at filling phase, with an increase in flow rate and voided volume. So, caffeine can promote early urgency and frequency of urination. Individuals with lower urinary tract symptom should avoid or be cautious in consuming caffeine containing foodstuffs.

**Urologic Surgical Procedures**

**Robot-assisted urologic surgery in 2010 - advancements and future outlook.**

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*Urology Annals* 2011; 3 (1): 1-7 (50 ref.)

**Keywords:** Robotics; Surgical Procedures, Minimally Invasive; Cystectomy; Laparoscopy; Nephrectomy; Prostatectomy; Urinary Bladder-surgery; Prostate-surgery

**Abstract:** Robotic surgery is a cutting edge and minimally invasive procedure, which has generated a great deal of excitement in the urologic community. While there has been much advancement in this emerging technology, it is safe to say that robotic urologic surgery holds tremendous potential for progress in the near future. Hence, it is paramount that urologists stay up-to-date regarding new developments in the realm of robotics with respect to novel applications, limitations and opportunities for incorporation into their practice. Robot-assisted surgery provides an enhanced 3D view, increased magnification of the surgical field, better manual dexterity, relatively bloodless field, elimination of surgeon's tremor, reduction in a surgeon's fatigue and mitigation of scattered light. All these factors translate into greater precision of surgical dissection, which is imperative in providing better intraoperative and postoperative outcomes. Pioneering work assessing the feasibility of robotic surgery in urology began in the early 2000's with robot-assisted radical prostatectomy and has since expanded to procedures such as robot-assisted radical cystectomy, robot-assisted partial nephrectomy, robot-assisted nephroureterectomy and robot-assisted pyeloplasty. A MEDLINE search was used to identify recent articles [within the last two years] and publications of specific importance, which highlighted the recent developments and future direction of robotics. This review will use the aforementioned urologic surgeries as vehicles to evaluate the current status and future role of robotics in the advancement of the field of urology.

**Uterine Cervical Diseases**

**diagnosis**

**Conventional versus liquid based pap smear tests for diagnosis of cervical lesions.**

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*Assiut Medical Journal* 2010; 34 (3): 209-216 (12 ref.)
**Keywords:** Vaginal Smears-cytology; Vaginal Smears-methods; Colposcopy

**Abstract:** To compare the results of manual Liquid-based Cytology, and Conventional Pap smear as confirmed by colposcopic-guided biopsy in the diagnosis of different cervical lesions, among women attending Sohag University Hospital outpatient clinic. Three hundred ninety three women with cervical abnormalities revealed by clinical examination were evaluated by examination of cervical smears [197 manual Liquid-based Cytology and 196 Conventional Pap]. The results of the smears were confirmed by colposcopic-guided biopsy. Comparable findings were noticed by both the Conventional and the manual Liquid-based cytology as confirmed by biopsy. Each test showed 97% sensitivity and 34% specificity in detecting specific inflammation, and 86% sensitivity and 34% specificity in detecting malignancy in the cervix, with no statistical differences between them, as confirmed by biopsy. The result of the manual liquid-based test is comparable to the conventional Pap smear test in detecting different cervical lesions. In addition, it is cheaper, easy and suitable to be applied in our community.

**Uterus abnormalities**

**Application of 3D ultrasonography in detection of uterine abnormalities.**

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**Keywords:** Uterus-ultrasonography; Mullerian Ducts-abnormalities

**Abstract:** Structural pathologies in the uterine cavity such as mullerian duct anomalies [MDAs] and intrauterine lesions [fibroids, polyps, synecchiea] may have important roles in subinfertility, implantation failure and pregnancy outcome. Various imaging modalities such as hysterosalpingography [HSG], sonography, laparoscopy and hysteroscopy are used in the evaluation of MDAs and intrauterine lesions. Recently, three-dimensional ultrasound [3DUS] has been introduced as a non-invasive, outpatient diagnostic modality. With increased spatial awareness, it is superior to other techniques used for the same purpose.

**Uveomeningoencephalitic Syndrome**

**Unilateral Vogt-Koyanagi-Harada disease: report of two cases.**

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Medical Research Foundation - Department of Uveitis

**Keywords:** Papilledema; Choroid-abnormalities; Retinal Detachment; Fluorescein Angiography

**Abstract:** In this retrospective report, we present two cases of unilateral Vogt-Koyanagi-Harada [VKH] disease. These patients were evaluated with clinical, ophthalmological and laboratory examinations. Their response following corticosteroid administration was evaluated. Both patients had the characteristic clinical features of VKH involving only one eye, including disc edema, choroidal striae, multiple sub retinal yellow lesions and exudative retinal detachment. These cases indicate that the clinical and angiographic features were typical of VKH disease despite the unilateral involvement.

**Varicocele surgery**

**The validity of testicular catch-up growth and serum FSH levels in the long-term postoperative assessment of laparoscopic varicocele correction in adolescents.**

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The University of Sydney - The Children's Hospital at Westmead - Department of General Surgery
Urology Annals 2011; 3 (1): 29-32 (17 ref.)

**Keywords:** Adolescent; Follicle Stimulating Hormone; Laparoscopy; Cohort Studies; Prospective Studies; Spermatogenesis; Semen Analysis; Treatment Outcome; Scrotum-ultrasonography; Follow-Up Studies

**Abstract:** Postoperative assessment after varicocele surgery in adolescence is commonly centred around catch-up growth of the testis. There is paucity of evidence on the correlation of catch-up growth with underlying testicular function in these patients. To assess the reliability of catch-up growth of the testis as an indicator of normalization of
testicular function and the utility of serum FSH levels in the long-term postoperative assessment of varicocele surgery in adolescence. Prospective cohort study of young adults [18-27 years] who had laparoscopic varicocele correction in adolescence [11-16 years]. Evaluation included serum FSH levels, scrotal ultrasonography and semen analysis. Anatomical and functional parameters of participants with equal and normal testicular size were compared to those of participants with persistent testicular hypotrophy or hypertrophy. Sensitivity and positive predictive value of postoperative serum FSH levels were estimated and elevated levels of serum FSH were checked for association with suboptimal outcomes of varicocele correction. The serum FSH levels of participants with unequal testicular sizes [n=6, median 6.65 IU/L], which included testicular hypertrophy [n=3, median 7.2 IU/L] and persistent testicular hypotrophy [n=3, median 6.1 IU/L], were significantly higher than the group with equal testicular sizes [n=8, median 3.5 IU/L; P=0.014, Mann-Whitney U test]. Postoperative elevated serum FSH levels were significantly associated with suboptimal outcomes of varicocele surgery [P=0.015, Fisher's exact test]. The test also had a high positive predictive value. Testicular catch-up growth may not be a reliable postoperative assessment criterion by itself. Serum FSH levels may be of value in detecting suboptimal outcomes of varicocele surgery in adolescents.

Vipoma

drug therapy

VIPoma Crisis: Immediate and life saving reduction of massive stool volumes on starting treatment with octreotide.
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SQUMJ - Sultan Qaboos University Medical Journal 2011; 11 (1): 104-107 (13 ref.)
Keywords: Vipoma-radiography; Octreotide-therapeutic use; Tomography, X-Ray Computed; Follow-Up Studies; Pancreatic Neoplasms
Abstract: We report the case of a 57-year-old male physician who presented with a life threatening secretory and refractory diarrhoea of around 20 L/day. This was complicated by severe hypotension, hypokalaemia, hypercalcaemia, renal failure requiring dialysis, metabolic acidosis, cardiorespiratory arrest and ventilation for 12 days. His diarrhoea responded immediately to the first dose of a therapeutic trial of subcutaneous octreotide 100 mcg 8 hourly which was started on clinical grounds alone before any investigations were carried out. After one day he was extubated and his blood pressure returned to normal. When a functioning neuroendocrine tumour is suspected clinically, the use of octreotide can, as in this case, be life saving.

Visually Impaired Persons

Ocular status and functional adaptation of visually challenged children of a special school in Oman.
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Ministry of Health - Department of Non-Communicable Disease Control
Keywords: Blindness-rehabilitation; Vision Disorders-rehabilitation; Schools; Questionnaires
Abstract: We assessed the ocular status and visual adaptation among children studying at a school for visually disabled children in Muscat, Oman. This descriptive study was conducted in 2009-2010. We assessed the visual and ocular status of the participants. They were interviewed to elicit the past history of eye problems and management. They also expressed their visual adaptation in their ‘day-to-day’ life, and their ambitions. We examined and interviewed 47 participants [29 male and 18 female]. The mean age of the participants was 19.7 years [Standard deviation 5.9 years]. Twenty-six of them were blind since birth. Phthisical eyes, disfigured eyes and anophthalmic sockets were noted in 19, 58, and six eyes of participants. Twenty-six [55.5%] participants had visual disabilities due to genetic causes, since birth. In 13 participants, further investigations were needed to confirm diagnosis and determine further management After low vision training, 13 participants with residual vision could be integrated in the school with normal children. One participant was recommended stem cell treatment for visual restoration. Five children were advised reconstructive orbital surgery. The participants were not keen to use a white cane for mobility. Some participants, 16 / 28 [57%], with absolute blindness, were not able to read the Braille language. Singing and playing music were not very well-accepted hobbies among the participants. Nineteen participants were keen to become teachers. Children with visual disabilities need to be periodically assessed. The underlying causes of visual disabilities should be further explored to facilitate prevention and genetic counseling. Participants had visual adaptation for daily living and had ambitions for the future.
**Vitamin D Deficiency**

**ethnology**

Vitamin D status in pregnant Omanis. A disturbingly high proportion of patients with low vitamin D stores.

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_SQUMJ - Sultan Qaboos University Medical Journal_ 2011; 11 (1): 52-55 (15 ref.)

**Keywords:** Pregnancy Complications-ethnology; Calcifediol; Nutrition Policy; Lactation; Vitamin D Deficiency-therapy

**Abstract:** The objective of this study was to determine the vitamin D status of pregnant Omanis by measurement of their circulating 25 hydroxy vitamin D levels. Blood samples were obtained from a cohort of 103 consecutive healthy pregnant Omanis at the Armed Forces Hospital, Muscat, on their first antenatal visit. The study took place in May, June and July 2010. Vitamin D deficiency was present in 34 [33%] of patients [25OHD3 <25 nmol/L], 'at risk' levels were found in 67 [65%] patients [25OHD3 25-50 nmol/L]; two patients [1.9%] had values between 50 and 75 nmol/L, and no patients in the optimal range >75 nmol/L. If confirmed, these findings indicate the need for vitamin D replacement during pregnancy and lactation. Although not evidence based we recommend at least 1000 IU of cholecalciferol, [vitamin D3] daily.

Vitamin D status in healthy Omani women of childbearing age. Study of female staff at the Royal Hospital, Muscat, Oman.

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Royal Hospital - Department of Chemical Pathology, Directorate of Medical Laboratories

_SQUMJ - Sultan Qaboos University Medical Journal_ 2011; 11 (1): 56-61 (20 ref.)

**Keywords:** Health Status; Nutritional Status; Vitamin D-blood; Pregnancy-blood; Risk Factors; Prenatal Care; Health Personnel

**Abstract:** Sunlight exposure has a vital role in vitamin D synthesis. Although vitamin D deficiency has been well documented in temperate zones, studies have been scarce in tropical countries where the population is well covered and for various reasons avoids sun exposure. The objective of this study was to investigate serum 25-hydroxyvitamin D [25[OH]D] levels and its relationship to biochemical bone profile, exposure to sunlight and vitamin D intake amongst Omani women of childbearing age. 41 apparently healthy women working at the Royal Hospital, Muscat, Oman and aged 18-45 years, with mean +/- SD of 29 +/- 6 years, were included in this study conducted in December 2006. They completed a questionnaire regarding the duration of sun exposure, food intake and type of clothing worn. Blood samples were collected from them and analyzed for serum 25[OH]D, calcium, phosphate, alkaline phosphatise and parathyroid hormone levels. All the women had a 25[OH]D level <50 nmol/L as the cut-off for deficiency. 25[OH]D levels were strongly correlated with the lack of sun exposure \[r = 0.672, P < 0.001\] and a significant correlation was also found between 25[OH]D level and food intake \[r = 0.482, P < 0.01\]. Subclinical 25[OH]D deficiency may be prevalent amongst Omani women. Risk factors such as poor sunlight exposure should be addressed in women of childbearing age and, if increased sunlight exposure is not possible, oral supplementation should be considered to avoid all the consequence and complications of vitamin D deficiency.

**Waste Management**

Nettle ash as a low cost adsorbent for the removal of nickel and cadmium from wastewater.

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University of Semnan - College of Science - Department of Chemistry


**Keywords:** Water Supply; Water Pollution; Water Pollution, Chemical; Water Pollutants; Water Pollutants, Chemical; Adsorption; Nickel; Cadmium

**Abstract:** This study was focused on nettle ash as an alternative adsorbent for the removal of nickel [II] and cadmium [II] from wastewater. Batch experiments were conducted to determine the factors affecting adsorption of nickel [II] and cadmium [II]. The adsorption process is affected by various parameters such as contact time, solution pH and adsorbent dose. The optimum pH required for maximum adsorption was found to be 6. The experimental data were tested using Langmuir, Freundlich and Tempkin equations. The data were fitted well to the Langmuir isotherm with monolayer adsorption capacity of 192.3 and 142.8 mg/g for nickel and cadmium, respectively. The adsorption kinetics were best described by the pseudo second order model. The cost of removal is expected to be quite low, as the adsorbent is cheap and easily available in large quantities. The present study showed that nettle ash was capable of removing nickel and cadmium ions from aqueous solution.
Separation of metal laden waste using pulsating air dry material separator.
He, Y.; Duan, C.; Wang, H.; Zhao, Y.; Tao, D.
E-mail: yqhe@cumt.edu.cn
China Univ. of Mining and Tech - School of Chemical Engineering and Tech
International Journal of Environmental Science and Technology 2011; 8 (1): 73-82 (41 ref.)
Keywords: Industrial Waste; Metals; Air; Recycling
Abstract: Separation of metal laden solid wastes for their recycling utilization using passive pulsed air and active pulsing air classifiers was studied. Laboratory investigation showed that the active pulsing air separator performs more efficiently than the passive pulsed air separator due to the ability to accurately control operating parameters. By studying the difference of drag coefficients of the particles moving through the airflow of varying Reynolds numbers, models of the dynamic particle motion were developed and a computer simulation was prepared. Results of the simulation were reported to predict the observed results with artificial tracing spheres being separated by the laboratory equipment. Two different, real world feed materials were separated with the laboratory scale active pulsing air classifier. The discarded catalyst consisting of precious metal components and sintered magnetic beads was separated with the separation efficiency, of 97.6%. The second real-world feed, electronic scrap crushed to a size of 0.5 to 2 mm, showed a separation efficiency of 92.41%. At the same time, the grade of the recovered concentrate of metals was above 98%.
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Appendix III

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