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Eastern Mediterranean Region

with Abstracts

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# Table of Contents

IMEMR Current Contents ........................................................................................................ vii

Subject Index.......................................................................................................................... xiii

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9,10-Dimethyl-1,2-benzanthracene</td>
<td>1</td>
</tr>
<tr>
<td>Abduces Nerve Diseases</td>
<td>1</td>
</tr>
<tr>
<td>Abortion, Threatened</td>
<td>2</td>
</tr>
<tr>
<td>Acquired Immunodeficiency Syndrome</td>
<td>2</td>
</tr>
<tr>
<td>Acute Lung Injury</td>
<td>3</td>
</tr>
<tr>
<td>Albinism, Oculocutaneous</td>
<td>3</td>
</tr>
<tr>
<td>Aluminum Compounds</td>
<td>4</td>
</tr>
<tr>
<td>Amlodipine</td>
<td>4</td>
</tr>
<tr>
<td>Analgesia, Epidural</td>
<td>5</td>
</tr>
<tr>
<td>Anastomosis, Roux-en-Y</td>
<td>5</td>
</tr>
<tr>
<td>Anemia, Macrocytic</td>
<td>6</td>
</tr>
<tr>
<td>Anemia, Sickle Cell</td>
<td>6</td>
</tr>
<tr>
<td>Anesthesia</td>
<td>7</td>
</tr>
<tr>
<td>Anesthesia, Spinal</td>
<td>7</td>
</tr>
<tr>
<td>Anesthesiology</td>
<td>8</td>
</tr>
<tr>
<td>Anthropometry</td>
<td>8</td>
</tr>
<tr>
<td>Aortic Aneurysm, Abdominal</td>
<td>8</td>
</tr>
<tr>
<td>Aortic Coarctation</td>
<td>9</td>
</tr>
<tr>
<td>Appendectomy</td>
<td>9</td>
</tr>
<tr>
<td>Appendicitis</td>
<td>9</td>
</tr>
<tr>
<td>Arteries</td>
<td>10</td>
</tr>
<tr>
<td>Athletes</td>
<td>10</td>
</tr>
<tr>
<td>Atracurium</td>
<td>11</td>
</tr>
<tr>
<td>Atrial Fibrillation</td>
<td>11</td>
</tr>
<tr>
<td>Biopsy</td>
<td>11</td>
</tr>
<tr>
<td>Blood Glucose</td>
<td>12</td>
</tr>
<tr>
<td>Blood Vessels</td>
<td>12</td>
</tr>
<tr>
<td>Bone Density</td>
<td>12</td>
</tr>
<tr>
<td>Brain Ischemia</td>
<td>13</td>
</tr>
<tr>
<td>Breast Feeding</td>
<td>13</td>
</tr>
<tr>
<td>Breast Neoplasms</td>
<td>14</td>
</tr>
<tr>
<td>Burns</td>
<td>14</td>
</tr>
<tr>
<td>Burns, Chemical</td>
<td>14</td>
</tr>
<tr>
<td>Calciosis</td>
<td>14</td>
</tr>
<tr>
<td>Carcinoma, Adenoid Cystic</td>
<td>15</td>
</tr>
<tr>
<td>Cardiovascular Diseases</td>
<td>15</td>
</tr>
<tr>
<td>Carotid Stenosis</td>
<td>16</td>
</tr>
<tr>
<td>Catheterization</td>
<td>16</td>
</tr>
<tr>
<td>Cephalometry</td>
<td>16</td>
</tr>
<tr>
<td>Cerebrovascular Circulation</td>
<td>17</td>
</tr>
<tr>
<td>Cholecystectomy, Laparoscopic</td>
<td>17</td>
</tr>
<tr>
<td>Cleft Lip</td>
<td>18</td>
</tr>
<tr>
<td>Colorectal Neoplasms</td>
<td>18</td>
</tr>
<tr>
<td>Conjunctival Diseases</td>
<td>19</td>
</tr>
<tr>
<td>Contraceptive Agents, Female</td>
<td>19</td>
</tr>
<tr>
<td>Corneal Wavefront Aberration</td>
<td>20</td>
</tr>
<tr>
<td>Coronary Disease</td>
<td>20</td>
</tr>
<tr>
<td>Coronary Stenosis</td>
<td>21</td>
</tr>
<tr>
<td>Coronary Vessel Anomalies</td>
<td>21</td>
</tr>
<tr>
<td>Cyclosporine</td>
<td>21</td>
</tr>
<tr>
<td>Death, Sudden, Cardiac</td>
<td>22</td>
</tr>
<tr>
<td>Delivery, Obstetric</td>
<td>22</td>
</tr>
<tr>
<td>Topic</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Dental Health Services</td>
<td>23</td>
</tr>
<tr>
<td>Dental Implants, Single-Tooth</td>
<td>23</td>
</tr>
<tr>
<td>Dental Polishing</td>
<td>23</td>
</tr>
<tr>
<td>Dental Prosthesis</td>
<td>24</td>
</tr>
<tr>
<td>Dental Pulp Cavity</td>
<td>24</td>
</tr>
<tr>
<td>Dermatitis, Atopic</td>
<td>25</td>
</tr>
<tr>
<td>Dexmedetomidine</td>
<td>25</td>
</tr>
<tr>
<td>Dextromethorphan</td>
<td>25</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>26</td>
</tr>
<tr>
<td>Diabetes Mellitus, Type 1</td>
<td>26</td>
</tr>
<tr>
<td>Diabetes Mellitus, Type 2</td>
<td>26</td>
</tr>
<tr>
<td>Diabetic Angiopathies</td>
<td>29</td>
</tr>
<tr>
<td>Diabetic Foot</td>
<td>29</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>29</td>
</tr>
<tr>
<td>Diastema</td>
<td>30</td>
</tr>
<tr>
<td>Diethyhexyl Phthalate</td>
<td>30</td>
</tr>
<tr>
<td>Dinoprostone</td>
<td>30</td>
</tr>
<tr>
<td>Dirofilariasis</td>
<td>31</td>
</tr>
<tr>
<td>Disseminated Intravascular Coagulation</td>
<td>31</td>
</tr>
<tr>
<td>Diving</td>
<td>32</td>
</tr>
<tr>
<td>DNA Damage</td>
<td>32</td>
</tr>
<tr>
<td>Doxorubicin</td>
<td>33</td>
</tr>
<tr>
<td>Drugs, Essential</td>
<td>33</td>
</tr>
<tr>
<td>Echinococcosis</td>
<td>34</td>
</tr>
<tr>
<td>Ectodermal Dysplasia</td>
<td>34</td>
</tr>
<tr>
<td>Eicosapentaenoic Acid</td>
<td>34</td>
</tr>
<tr>
<td>Eisenmenger Complex</td>
<td>35</td>
</tr>
<tr>
<td>Electromagnetic Fields</td>
<td>35</td>
</tr>
<tr>
<td>Encephalocele</td>
<td>36</td>
</tr>
<tr>
<td>Endocarditis</td>
<td>37</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>37</td>
</tr>
<tr>
<td>Estradiol</td>
<td>38</td>
</tr>
<tr>
<td>Euthanasia</td>
<td>38</td>
</tr>
<tr>
<td>Eye Diseases</td>
<td>38</td>
</tr>
<tr>
<td>Eye Foreign Bodies</td>
<td>39</td>
</tr>
<tr>
<td>Eyelid Neoplasms</td>
<td>39</td>
</tr>
<tr>
<td>Fatty Acids, Omega-3</td>
<td>39</td>
</tr>
<tr>
<td>Flavivirus Infections</td>
<td>39</td>
</tr>
<tr>
<td>Furunculosis</td>
<td>40</td>
</tr>
<tr>
<td>Garlic</td>
<td>40</td>
</tr>
<tr>
<td>Gastrectomy</td>
<td>40</td>
</tr>
<tr>
<td>Gilbert Disease</td>
<td>41</td>
</tr>
<tr>
<td>Glaucoma</td>
<td>41</td>
</tr>
<tr>
<td>Glucosephosphate Dehydrogenase Deficiency</td>
<td>41</td>
</tr>
<tr>
<td>Goldenhar Syndrome</td>
<td>42</td>
</tr>
<tr>
<td>Gonadal Dysgenesis</td>
<td>42</td>
</tr>
<tr>
<td>Guillain-Barre Syndrome</td>
<td>42</td>
</tr>
<tr>
<td>Harderian Gland</td>
<td>42</td>
</tr>
<tr>
<td>Health Policy</td>
<td>43</td>
</tr>
<tr>
<td>Hearing Loss, Noise-Induced</td>
<td>43</td>
</tr>
<tr>
<td>Hearing Loss, Sensorineural</td>
<td>44</td>
</tr>
<tr>
<td>Heart Rupture, Post-Infarction</td>
<td>44</td>
</tr>
<tr>
<td>Helicobacter Infections</td>
<td>44</td>
</tr>
<tr>
<td>Helicobacter pylori</td>
<td>45</td>
</tr>
<tr>
<td>Hemangioma, Cavernous</td>
<td>45</td>
</tr>
<tr>
<td>Hepatocitomy</td>
<td>45</td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>46</td>
</tr>
<tr>
<td>Hepatitis C, Chronic</td>
<td>47</td>
</tr>
<tr>
<td>Hernia, Diaphragmatic</td>
<td>48</td>
</tr>
<tr>
<td>Hernia, Inguinal</td>
<td>48</td>
</tr>
<tr>
<td>Hernia, Ventral</td>
<td>49</td>
</tr>
<tr>
<td>Topic</td>
<td>Page</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Osteoporosis, Postmenopausal</td>
<td>77</td>
</tr>
<tr>
<td>Orthodontics, Corrective</td>
<td>77</td>
</tr>
<tr>
<td>Orbital Pseudotumor</td>
<td>76</td>
</tr>
<tr>
<td>Oral Hygiene</td>
<td>76</td>
</tr>
<tr>
<td>Nutrition Surveys</td>
<td>75</td>
</tr>
<tr>
<td>Nitric-Oxide Synthase</td>
<td>74</td>
</tr>
<tr>
<td>Neuronal Ceroid-Lipofuscinosis</td>
<td>73</td>
</tr>
<tr>
<td>Neovascularization, Pathologic</td>
<td>72</td>
</tr>
<tr>
<td>Mortality</td>
<td>70</td>
</tr>
<tr>
<td>Milk</td>
<td>70</td>
</tr>
<tr>
<td>Mucocoele</td>
<td>70</td>
</tr>
<tr>
<td>Mycobacterium tuberculosis</td>
<td>71</td>
</tr>
<tr>
<td>Natriuretic Peptides</td>
<td>72</td>
</tr>
<tr>
<td>Neoplasms</td>
<td>72</td>
</tr>
<tr>
<td>Neovascularization, Pathologic</td>
<td>72</td>
</tr>
<tr>
<td>Nervous System Diseases</td>
<td>72</td>
</tr>
<tr>
<td>Neuronal Ceroid-Lipofuscinosis</td>
<td>73</td>
</tr>
<tr>
<td>Nitric Oxide Synthase Type III</td>
<td>74</td>
</tr>
<tr>
<td>Nitric-Oxide Synthase</td>
<td>74</td>
</tr>
<tr>
<td>Nutrition Surveys</td>
<td>75</td>
</tr>
<tr>
<td>Obesity</td>
<td>75</td>
</tr>
<tr>
<td>Occupational Exposure</td>
<td>75</td>
</tr>
<tr>
<td>Olfactory Mucosa</td>
<td>76</td>
</tr>
<tr>
<td>Oral Hygiene</td>
<td>76</td>
</tr>
<tr>
<td>Orbital Pseudotumor</td>
<td>76</td>
</tr>
<tr>
<td>Orthodontics, Corrective</td>
<td>77</td>
</tr>
<tr>
<td>Osteoporosis, Postmenopausal</td>
<td>77</td>
</tr>
<tr>
<td>Topic</td>
<td>Page</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Palliative Care</td>
<td>77</td>
</tr>
<tr>
<td>Peptic Ulcer</td>
<td>78</td>
</tr>
<tr>
<td>Phacoemulsification</td>
<td>78</td>
</tr>
<tr>
<td>Physician-Patient Relations</td>
<td>78</td>
</tr>
<tr>
<td>Piperidines</td>
<td>79</td>
</tr>
<tr>
<td>Pistacia</td>
<td>79</td>
</tr>
<tr>
<td>Pleural Effusion</td>
<td>80</td>
</tr>
<tr>
<td>Pneumoconiosis</td>
<td>80</td>
</tr>
<tr>
<td>Polycythemia Vera</td>
<td>81</td>
</tr>
<tr>
<td>Porifera</td>
<td>81</td>
</tr>
<tr>
<td>Post-Dural Puncture Headache</td>
<td>81</td>
</tr>
<tr>
<td>Postoperative Complications</td>
<td>81</td>
</tr>
<tr>
<td>Postoperative Nausea and Vomiting</td>
<td>82</td>
</tr>
<tr>
<td>Postpartum Hemorrhage</td>
<td>83</td>
</tr>
<tr>
<td>Pre-Eclampsia</td>
<td>83</td>
</tr>
<tr>
<td>Pregnancy Complications, Neoplastic</td>
<td>84</td>
</tr>
<tr>
<td>Pregnancy Trimester, Third</td>
<td>85</td>
</tr>
<tr>
<td>Preoperative Care</td>
<td>85</td>
</tr>
<tr>
<td>Private Sector</td>
<td>85</td>
</tr>
<tr>
<td>Propofol</td>
<td>85</td>
</tr>
<tr>
<td>Prostaglandin-Endoperoxide, Synthases</td>
<td>86</td>
</tr>
<tr>
<td>Prothesis Coloring</td>
<td>86</td>
</tr>
<tr>
<td>Public-Private Sector Partnerships</td>
<td>87</td>
</tr>
<tr>
<td>Pulmonary Circulation</td>
<td>87</td>
</tr>
<tr>
<td>Radius Fractures</td>
<td>87</td>
</tr>
<tr>
<td>Receptors, CCR3</td>
<td>88</td>
</tr>
<tr>
<td>Respiratory Function Tests</td>
<td>88</td>
</tr>
<tr>
<td>Retinal Artery Occlusion</td>
<td>88</td>
</tr>
<tr>
<td>Retinal Neovascularization</td>
<td>88</td>
</tr>
<tr>
<td>Retinitis Pigmentosa</td>
<td>89</td>
</tr>
<tr>
<td>Rhabdomysarcoma</td>
<td>89</td>
</tr>
<tr>
<td>Root Canal Preparation</td>
<td>90</td>
</tr>
<tr>
<td>Rotator Cuff</td>
<td>90</td>
</tr>
<tr>
<td>Schistosomiasis haematobia</td>
<td>90</td>
</tr>
<tr>
<td>Scleroderma, Systemic</td>
<td>91</td>
</tr>
<tr>
<td>Seizures, Febrile</td>
<td>91</td>
</tr>
<tr>
<td>Self Medication</td>
<td>92</td>
</tr>
<tr>
<td>Shoulder Pain</td>
<td>92</td>
</tr>
<tr>
<td>Silicosis</td>
<td>92</td>
</tr>
<tr>
<td>Simvastatin</td>
<td>93</td>
</tr>
<tr>
<td>Skin</td>
<td>93</td>
</tr>
<tr>
<td>Sphincterotomy, Endoscopic</td>
<td>94</td>
</tr>
<tr>
<td>Spinal Fusion</td>
<td>94</td>
</tr>
<tr>
<td>Stem Cell Transplantation</td>
<td>94</td>
</tr>
<tr>
<td>Stress, Psychological</td>
<td>95</td>
</tr>
<tr>
<td>Surgical Procedures, Operative</td>
<td>95</td>
</tr>
<tr>
<td>Thalassemia</td>
<td>95</td>
</tr>
<tr>
<td>Thoracic Surgery</td>
<td>96</td>
</tr>
<tr>
<td>Thrombathenia</td>
<td>96</td>
</tr>
<tr>
<td>Thyroid Gland</td>
<td>96</td>
</tr>
<tr>
<td>Thyroid Nodule</td>
<td>97</td>
</tr>
<tr>
<td>Tinnitus</td>
<td>97</td>
</tr>
<tr>
<td>Tobacco Smoke Pollution</td>
<td>97</td>
</tr>
<tr>
<td>Toluene</td>
<td>98</td>
</tr>
<tr>
<td>Tomography, X-Ray Computed</td>
<td>98</td>
</tr>
<tr>
<td>Tongue Neoplasms</td>
<td>99</td>
</tr>
<tr>
<td>Trachea</td>
<td>99</td>
</tr>
<tr>
<td>Trachoma</td>
<td>100</td>
</tr>
<tr>
<td>Transaminases</td>
<td>100</td>
</tr>
<tr>
<td>Triage</td>
<td>101</td>
</tr>
<tr>
<td>Trochlear Nerve Diseases</td>
<td>101</td>
</tr>
</tbody>
</table>
Appendix I : Author Index ................................................................................................................... 111

Appendix II : List of EMR Journals Indexed in IMEMR (by country) ......................................................... 133

Appendix III : List of EMR Journals Indexed in IMEMR (by title) ................................................................. 151
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\(^1\).

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/HIS/VHSL/Imemr.htm

**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.)

**Abstract:** To study the correlation between enzyme linked Immunosorbent 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, 5/30 [16.6%] RA, 9/40 [22.5%] disease controls and 1/30 [3.3%] of normal healthy controls. 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.

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

Figure (1): Sample of IMEMR citation
Subject Index
9,10-Dimethyl-1,2-benzanthracene
toxicity

Chemopreventive effect of green tea on 9, 12 dimethylbenz-[a]-Anthracene [DMBA]-induced hamster buccal pouch carcinogenesis.
Abdel Aziz, Dareen Mohamed M.; Hassan, Magda M.A.; El Refai, Abdel Nasser M.H.; El Sweify, Amr A.
Suez Canal University - Faculty of Dentistry - Departments of Oral Pathology
Suez Canal University Medical Journal 2009; 12 (1): 77-84 (25 ref.)

Keywords: Mouth Neoplasms-pathology; Cricetinae; Protective Agents; Tea; Genes, p53; Immunohistochemistry

Abstract: Oral cancer prevention using naturally occurring substances that could be included in diet consumed by humans, is gaining attention. Investigating the chemopreventive effect of green tea, through assessment of mutant p53 immunoeexpression, in the hamster buccal pouch epithelium-induced carcinogenesis. Forty-five hamsters were divided into 3 groups. Group A was served as controls. In group B, left pouches of hamsters were painted with 0.5% Dimethylbenz-[a] -anthracene [DMBA], 3 times/week for 6 weeks. Hamsters of group C were given Epigallocatechin Gallate [EGCG]; five animals were sacrificed [Group C3], the remaining 20 were divided into 2 groups; group C1 was given EGCG and DBMA and group C2 was given DBMA only. All pouches were surgically excised, fixed, processed for H and E and mutant p53 immunohistochemical staining. Mutant p53 immunoeexpression score was highly significant in group B, compared to group C1 which was given EGCG only. Administration of EGCG, before and in combination with the carcinogen [group C1] resulted in significantly decreased expression of mutant p53 parallel to decreased grades of dysplasia. Administration of EGCG alone for 2 weeks [group C3] showed negative mutant p53 expression. EGCG proved to be a chemopreventive and/or protective agent; through suppressing and/or retarding malignant transformation, reducing cell proliferation and inducing apoptosis. The apoptosis may be possibly through preventing p53 mutations.

Abducens Nerve Diseases

surgery

Outcomes of surgical and non-surgical treatment for sixth nerve palsy.
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Shahid Beheshti University of Medical Sciences - Labbafinejad Medical Center - Ophthalmic Research Center

Keywords: Abducens Nerve Diseases-therapy; Treatment Outcome; Retrospective Studies

Abstract: To report the outcomes of surgical and non-surgical treatment in sixth nerve paresis and palsy. This retrospective study was performed on hospital records of 33 consecutive patients [37 eyes] with sixth nerve dysfunction who were referred to Labbafinejad Medical Center from September 1996 to September 2006, and underwent surgical procedures or botulinum toxin injection. Patients were divided into three groups: group A had muscle surgery without transposition, group B underwent transposition procedures and group C received Botulinum toxin injection. Overall, 33 patients including 19 male and 14 female subjects with mean age of 20.4 +/- 17.2 years [range, 6 months to 66 years] were studied. Eye deviation improved from 50.3 +/- 16.8 to 6.0 +/- 9.8 prism diopters [PD] after the first operation and to 2.5 +/- 5.0 PD after the second operation in group A, from 56.9 +/- 24.3 to 5.5 +/- 16.0 PD after the first procedure and to almost zero following the second in group B, and from 44.3 +/- 10.5 to 15.0 +/- 20.0 PD 6 months following botulinum toxin injection in group C. Head posture and limitation of motility also improved significantly in all three groups. The overall rate of reoperations was 21%. Various procedures are effective for treatment of sixth nerve dysfunction; all improve ocular deviation, head turn and abduction deficit. The rate of reoperation is not high when treatment is appropriately selected according to clinical condition.

Surgical treatment of trochlear and abducens nerve palsies.
Coats, David
Baylor College of Medicine - Texas Children's Hospital

Keywords: Trochlear Nerve Diseases-surgery; Treatment Outcome
Abortion, Threatened

diagnosis

The Predictive value of maternal hormonal serum level of inhibin a in case of threatened abortion.
Saleh, Fawzia Mahmoud; Rizk, Ahmed Mohamed; Azzam, Amal Zaki; Deghady, Akram Abdel Moneim; Kawgi, Rania Zoheir Bacri
Alexandria University - Faculty of Medicine - Department Obstetrics and Gynaecology
Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 25-33 (43 ref.)
Keywords: Inhibins-blood; Pregnancy Outcome; Follow-Up Studies
Abstract: Threatened abortion is the commonest complication in pregnancy, it is defined as vaginal bleeding with or without menstrual like cramps in the first 20 weeks of pregnancy. No history of passage of tissue or rupture of membrane is present and ultrasound demonstrates an intrauterine sac with fetal cardiac activity. The early and accurate prediction of unsuccessful pregnancy in this situation should lead to appropriate treatment without unnecessary delay, but still there is no effective marker to predict in advance the outcome of threatened abortion. Inhibin A concentration rises and falls during the menstrual cycle. The lowest level is during the early and late days of the cycle and peaks during midcycles coincident with LH surge and midluteal period [being twofold higher than the first]. its level is higher in pregnant women than in non pregnant, and increases throughout pregnancy until delivery. in the early weeks of gestation, the corpus luteum is the principal source of inhibin but about the eighth week, it is excreted from the fetoplacental unit, immediately after delivery it's level decreases sharply. Th aim of the present research was to study the possible role of inhibin A in predicting pregnancy outcome in women with threatened abortion. This study included fifty pregnant women at 8 and 10 weeks gestational age, they were divided into; Group I [studied group] including 30 pregnant women with threatened abortion. Group II [control group] including 20 healthy not complaining pregnant women matched with the studied group. All of them were subjected to the following: Complete history taking, general clinical examination; obstetric examination; routine laboratory investigations; ultrasound examination for detection of fetal viability and fetal parameters; maternal blood samples were collected for determination of the quantitative measurement of inhibin A and follow up of cases till reaching 20 weeks of gestational age. The studied groups were further subdivided according to the outcome of pregnancy into: Group A [threatened abortion and fluting pregnancies] n 15; group B [threatened abortion bui ongoing pregnancies] n 15. The results of the study were analysed statistically, and we found that; there was a significant decrease in the levels of inhibin A in cases of threatened abortion [group I] compared with the control group. Much more significant lower levels of inhibin A were Jbund in cases of threatened abortion and failing pregnancies [group A] compared with the cases of threatened abortion but ongoing pregnancies [group B]. The cutoff value of inhibin A was measured, using the receiving operator curve [Roc curve], it was 268.9 pg/ml with a sensitivity of 82.5% and a specificity of 90.1% at8 weeks, while it was 395.5 pg/ml with a sensitivity of 85.5% undo specificity of 90.5% at 10 weeks. From our study we concluded that, finding an abnormal low level of inhibin A in pregnant fimale with threatened abortion can predict poor pregnancy outcome. The expanding knowledge of the role of inhibins since the development of specific and sensitive assays has opened the field for their potential use in clinical practice. Examining the role of inhibins and other biochemical markers in early pregnancy ftzilure will lead to an improved understanding of the mechanism behind it and will aid in selection of patients in whom expectant management is appropriate.

Acquired Immunodeficiency Syndrome

psychology

HIV-related knowledge and AIDS stigma among college students in Yemen.
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University of North Dakota - Department of Sociology
EMHJ - Eastern Mediterranean Health Journal 2010; 16 (8): 901-906 (25 ref.)
Keywords: HIV; Students; Questionnaires; Health Knowledge, Attitudes, Practice
Abstract: The present study analysed data from 501 Yemeni university students to examine their knowledge about HIV and their attitudes towards people with HIV/AIDS. The findings indicate that participants had several serious misunderstandings about HIV/AIDS and held negative attitudes toward people living with HIV/ AIDS. Although female students were less knowledgeable about HIV/AIDS than were male students, they held more positive attitudes toward people with HIV/AIDS. An overwhelming number of students expressed their willingness to get tested for HIV and recognized that AIDS is a serious issue facing their country. The study provides suggestions for HIV prevention efforts and ideas for future studies in Yemen.
Acute Lung Injury

chemically induced

The effect of experimentally induced oxidative stress on rat lung and the possible protective role of pentoxifylline: a histological and biochemical study.
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Tanta University - Faculty of Medicine - Department of Histology
Keywords: Oxidative Stress; Thiobarbituric Acid Reactive Substances; Blood Gas Analysis; Protective Agents; Pentoxifylline-therapeutic use; Lung-pathology; Histology; Rats; Lung-ultrastructure; Microscopy, Electron
Abstract: Acute lung injury and its most severe form, the acute respiratory distress syndrome are frequent complications in critically ill patients and are responsible for significant morbidity and mortality. Skeletal muscle breakdown [rhabdomyolysis] causes biochemical, functional and histological changes of kidney. The effects of rhabdomyolysis are likely mediated by increased oxidative stress leading to renal tubular cytotoxicity. Oxidative stress has a close relation to acute respiratory distress syndrome. This work was carried out to demonstrate the effect of experimentally induced oxidative stress on the lung histologically and biochemically and to study the role of pentoxifylline in ameliorating these effects. Seventy adult male albino rats were used and divided into three main groups; the control [Group I] consisted of 20 rats and each experimental group consisted of 25 rats. Group II injected by i.m. glycerol once to induce rhabdomyolysis and consequently oxidative stress and group III received pentoxifylline before i.m glycerol injection. Heparinized blood samples were taken for assessment of total creatine kinase, total glutathione peroxidase, thiobarbituric acid reactive substances, plasma antioxidants, PaO\[2\] and PaCO\[2\]. Bronchoalveolar lavage [BAL] was taken for cellular profile and lung specimens for histological study. All samples were taken 6 hours after glycerol injection. Experimental group II showed significant increase in creatine kinase, total glutathione peroxidase and thiobarbituric acid reactive substance [TBARS]. Arterial blood gases showed significant decrease in PaO\[2\] and PaCO\[2\]. In BAL there was a significant increase in neutrophils and a non significant increase in macrophages. The lung showed increase in the thickness of the interalveolar septa with cellular infiltration associated with alveolar damage and many collapsed alveoli. Ultrastructurally, pneumocytes type II showed degenerative changes in the form of cyttoplasmic vacuolation and destruction of lamellar bodies and mitochondria but in group III, all changes showed improvement with presence of minimal affection. Induced oxidative stress could lead to acute lung injury with biochemical alterations of many parameters. Meanwhile, pentoxifylline showed ameliorative effect on all of these parameters.

Albinism, Oculocutaneous

genetics

Genetic analysis of oculocutaneous albinism type la [OCA1A] in an iranian family.
Jafart, H. Pour; Zamanian, A.; Jafari, B. Pour
Hamadan University of Medical Sciences - Research Center for Molecular Medicine
Iranian Journal of Public Health 2010; 39 (1): 100-104 (12 ref.)
Keywords: Family; Mutation-genetics; Inheritance Patterns; Pedigree
Abstract: Oculocutaneous albinism type I [OCA1] is characterized by the absence of melanin pigmentation. The mutation on TYR gene makes OCA1 as an autosomal recessive genetic disorder. In this study, we delineated the genetic analysis of an Iranian family with four members affected with OCA1. Clinical exams and paraclinical test were performed for all patients of the case family, also proband, her husband, and her parents. Pedigree chart was drawn too. We extracted the genomic DNA from the leukocytes of seven members of the family. Haplotype analysis at the TYR locus was done and informative microsatellite markers were employed. In order to amplify the entire coding region of the TYR gene, for bidirectional direct sequencing mutation analysis, eight sets of primers were used. Our patients were diagnosed as affected with Oculocutaneous albinism type la. Analysis of pedigree pattern showed an autosomal recessive inheritance. Analysis with different markers in chromosomes 5, 6, 9, 11 and 15 showed that cause of albinism in our case family was on chromosome 11 [D1 SI 887 marker was informative]. The results offered a more developed method of diagnosis for OCA1 carrier identification and genetic counseling for OCA1 affected families as well; also submit a sample of mutation involved with Oculocutaneous albinism in Iran. Genetic analysis is necessary for determining the type of albinism in an individual patient.
Aluminum Compounds

adverse effects

Upregulation of the inducible nitric oxide synthase in rat hippocampus in a model of Alzheimer’s disease: a possible mechanism of aluminium induced Alzheimer’s.

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Keywords: Alzheimer Disease; Nitric-Oxide Synthase; Hippocampus-physiology; Up-Regulation-drug effects; Rats

Abstract: Alzheimer’s disease attacks the brain causing gradual memory loss. Alzheimer’s brain showed excess beta amyloid protein and neurofibrillary tangles, containing deposition of aluminium. Increasing evidence suggests that many neurons may die through apoptosis in Alzheimer’s. Inducible nitric oxide synthase [iNOS] derived nitric oxide [NO] has been implicated in this process of neuronal cell death and apoptosis. Aluminium is considered a potential etiological factor in Alzheimer’s disease and was used to produce an animal model of Alzheimer’s. However, the exact mechanisms of aluminium induced Alzheimer’s and neurotoxicity remain largely unknown. The present study was carried out to investigate the profile of the expression of iNOS in the hippocampus in an animal model of Alzheimer’s produced by aluminium administration. Twenty four adult male albino rats were divided equally into four groups. Group I was the untreated control, groups II, III and IV were given aluminium chloride [300 mg/kg body weight] orally daily for one week, two and four weeks, respectively. At the end of the experiment, rats were killed by decapitation under brief anaesthesia. The brains were removed and processed for immunohistochemistry using antibody raised against iNOS. Results: By comparison to the untreated control, aluminium treated rats showed significant [P<0.05] increase in the expression of iNOS in the hippocampus. The expression was mainly neuronal and was seen in all areas. Additionally, administration of aluminium for four weeks caused marked histological changes with significant [P <0.05] reduction in hippocampus neuronal number and distortion of neuronal morphology. These data provide further evidence that exposure to aluminium may contribute to pathogenesis of Alzheimer ‘s and neurotoxicity by induction ofNOS with subsequent increase in NO production that potentiate neuronal cell death in hippocampus.

Amlodipine

therapeutic use

Comparative efficacy of amlodipine and hydrochlorothiazide-amiloride in cases of mild essential hypertension in outdoor patients at combined Military Hospital Multan.

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2Mtn Field Ambulance
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 37-41 (11 ref.)

Keywords: Hydrochlorothiazide-therapeutic use; Hypertension-drug therapy; Treatment Outcome; Randomized Controlled Trial as Topic; Amloride-therapeutic use

Abstract: To compare antihypertensive effect of fixed dose combination Hydrochlorothiazide-Amiloride and Amlodipine in patients of mild essential hypertension. Randomized controlled trial [RTC]. Department of Medicine Combined Military Hospital Multan Cantt from 29 January 2007 to 29 June 2007. After fulfilling the inclusion criteria of mild essential hypertension, defined as per recommendations of Seventh Joint National Committee [JNC 7] for treatment of Hypertension as stage 1 hypertension, systolic blood pressure [SBP] >/= 140-159-mmHg and Diastolic blood pressure(DBP) >/= 90-99-mmHg, 100 patients were randomized into two study groups using a table of random numbers. Group 1 received tab amlodipine [5 mg] and Group 2 received tab hydrochlorothiazide-amiloride [25 mg-2.5mg]. Informed written consent was taken. The patients were followed on subsequent visits [6 in total] for five months and systolic and diastolic blood pressure was recorded carefully. All the data thus obtained were processed and analyzed using SPSS version 10.0. Mean and standard deviation [SD] were calculated for age, diastolic and systolic blood pressure. In group 1 the drop in mean SBP between first and last visit was 15.42 mm Hg. In group 2 the drop in mean DBP between first and last visit was 10.08 mm Hg. In group 2 the drop in mean DBP between first and last visit was 14.65 mmHg. Mean drop in SBP of both the groups were compared with each other and found to be significantly different [P=0.003]. Similarly mean drop in DBP of both the groups were compared with each other and found to be significant statistically [P=0.001]. Hydrochlorothiazide-Amiloride had significantly better antihypertensive effect than Amlodipine in patients of mild essential hypertension at the end of five months therapy.
**Analgesia, Epidural**

Epidural analgesia during labor-0.5% lidocaine with fentanyl vs 0.08% ropivacaine with fentanyl. Mousa, Wesam F.; Al Metwalli, R.R.; Mostafa, Manal  
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Tanta University - Qatif Central Hospital - Anesthesia and Intensive Care  
*Middle East Journal of Anesthesiology* 2010; 20 (4): 521-527 (28 ref.)  
**Keywords:** Lidocaine-therapeutic use; Fentanyl-therapeutic use; Amides-therapeutic use; Labor Pain-drug therapy; Pain Measurement; Double-Blind Method; Prospective Studies  
**Abstract:** Although lidocaine is a cheap and globally available local anesthetic, yet it is not a popular drug for labor analgesia. This is claimed to its higher intensity of motor block, possibility of transient neurological symptoms [TNS] and its placental transfer with probable drawbacks on fetal well-being. However, these effects could be concentration dependent and, the evidence linking them to lidocaine is still lacking. This study was designed to evaluate the efficacy and safety of 0.5% epidural lidocaine plus fentanyl during labor. One hundred and twenty healthy full term nulliparous women in early labor with a single fetus presented by the vertex were enrolled in this randomized, double-blind clinical trial. Parturient were assigned to receive epidural analgesia either with lidocaine 0.5% plus fentanyl 2 micro g [-1mL] [LF], or ropivacaine 0.08% plus fentanyl 2 micro g[-1] ml [RF] when their cervix was dilated to 4 centimeters. Analgesia was provided with 20 ml bolus of the study solution and maintained at 10 ml[-1]h. Upper level of sensory loss to cold, Visual Analogue Pain Score [VAPS], motor block [modified Bromage score], the duration of the first and second stages of labor, numbers of instrumental vaginal and cesarean deliveries, the neonatal apgar score, patient satisfaction and side effects, were recorded. There were no significant differences in sensory level, pain scores, duration of the first and second stages of labor, numbers of instrumental and cesarean deliveries, the neonatal apgar scores, patient satisfaction or side effect between groups. Although motor block was significantly high in lidocaine group compared to ropivacaine group [p<0.05], all parturient were moving satisfactorily in bed. Dilute epidural lidocaine [0.5%] with fentanyl effectively and safely initiates epidural analgesia clinically indistinguishable from 0.08% epidural ropivacaine with fentanyl. Although it induces significant motor block compared to ropivacaine, it still preserves maternal ability to move satisfactorily in bed. Whether further reduction in lidocaine concentration could trim down the motor block, remains to be investigated.

**Anastomosis, Roux-en-Y**

adverse effects

Issa, Hussain; Al Saif, Osama; Al Momen, Sami; Bseiso, Bahaa; Al Salem, Ahmed  
King Fahad Specialist Hospital - Department of Internal Medicine  
**Keywords:** Gastric Bypass-adverse effects; Duodenal Ulcer-complications; Peptic Ulcer Hemorrhage; Laparoscopy; Obesity, Morbid-surgery  
**Abstract:** Roux-en-Y gastric bypass is a common surgical procedure used to treat patients with morbid obesity. One of the rare, but potentially fatal complications of gastric bypass is upper gastrointestinal bleeding, which can pose diagnostic and therapeutic dilemmas. This report describes a 39-year-old male with morbid obesity who underwent a Roux-en-Y gastric bypass. Three months postoperatively, he sustained repeated and severe upper attacks of upper gastrointestinal bleeding. He received multiple blood transfusions, and had repeated upper and lower endoscopies with no diagnostic yield. Finally, he underwent laparoscopic endoscopy which revealed a bleeding duodenal ulcer. About 5 ml of saline with adrenaline was injected, followed by electrocoagulation to seal the overlying cleft and blood vessel. He was also treated with a course of a proton pump inhibitor and given treatment for H pylori eradication with no further attacks of bleeding. Taking in consideration the difficulties in accessing the bypassed stomach endoscopically, laparoscopic endoscopy is a feasible and valuable diagnostic and therapeutic procedure in patients who had gastric bypass.
Anemia, Macrocytic

mtDNA deletion in an iranian infant with pearson marrow syndrome.
Arzanian, Mohammad Taghi; Eghball, Aziz; Karimzade, Parvaneh; Ahmadi, Mitra; Houshmand, Massoud; Rezaei, Nima
Shahid Beheshti University of Medical Sciences - Mofid Children's Hospital - Department of Pediatric Hematology-Oncology
Keywords: DNA, Mitochondrial-genetics; Gene Deletion; Syndrome; Neutropenia; Neurologic Manifestations
Abstract: Pearson syndrome [PS] is a rare multisystem mitochondrial disorder of hematopoietic system, characterized by refractory sideroblastic anemia, pancytopenia, exocrine pancreatic insufficiency, and variable neurologic, hepatic, renal, and endocrine failure. We describe a six-month-old female infant with Pearson marrow syndrome who presented with neurological manifestations. She had several episodes of seizures, Hematopoietic abnormalities were macrocytic anemia and neutropenia. Bone marrow aspiration revealed a cellular marrow with marked vacuolization of erythroid and myeloid precursors. Analysis of mtDNA in peripheral blood showed 8.5 kb deletion that was compatible with the diagnosis of PS. PS should be considered in infants with neurologic diseases, in patients with cytopenias, and also in patients with acidosis or refractory anemia.

Anemia, Sickle Cell

Management of splenic abscess in sickle cell disease.
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Al-Azhar University - Faculty of Medicine - Department of Surgery
Suez Canal University Medical Journal 2009; 12 (1): 25-30 (29 ref.)
Keywords: Spleen-ultrasonography; Abscess; Tomography, X-Ray Computed
Abstract: Sickle cell disease [SCD] is one of the commonly inherited disease and the Eastern Province of Saudi Arabia where splenomegaly with high frequency in the adolescent, predisposes the patient to have splenic abscess. The present study documents the pathology, clinical picture, investigations and surgical treatment of the splenic abscess. Twenty two cases of sickle cell disease patients complicated with splenic abscess were included in this study during October 2002 December 2007. Splenic abscess is a rare complication of sickle cell disease but is the most serious complication. Splenic infarction is one of the most predisposing cause for splenic abscess. There are different modalities for the management of splenic abscess as ultrasound or CT guided aspiration or splenectomy. Splenectomy remains the treatment of choice in sickle cell disease patient with splenic abscess.

diagnosis

How to reach rapid diagnosis in sickle cell disease?
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Jundishapur University of Medical Sciences - Abuzar Pediatric Hospital - Department of Nephrology
Keywords: Hemoglobin SC Disease; Hemoglobins; Erythrocyte Indices; Erythrocyte Count; Hematocrit
Abstract: Sickle cell disease [SCD] is a common hereditary disease in Iran. In developed countries, newborn screening programs have been established to ensure early diagnosis, but in most developing countries, screening is not performed and the diagnosis is often delayed. The aim of the present work was to investigate the clinical presentation of SCO in Iran and comparison of its hematologic indices with normal children. The study included 44 pediatric patients [26 boys and 18 girls] with sickle cell anemia [SS], 27 sickle / beta° - thalassemia [S beta°], and 21 sickle /beta [+], - thalassemia [S beta[+]]. Fifty seven healthy individuals matched with the patients were randomly selected as controls. Mean age at diagnosis in SS group was 4.3 years. At the time of diagnosis all patients were anemic. 89% complained of painful crises. Hemoglobin[HB] concentration, red blood cell [RBC] count and HbxRBC product in SS group was significantly lower than in control group [P<0.001], mean corpuscular volume [MCV] and mean corpuscular hemoglobin [MCH] showed no significant differences. HbxRBC product below 45 and MCH/RBC above 7 have the best sensitivity and specificity for differenting SS group and the control normal group [91 and 98% for HbxRBC and 98% for MCH/RBC respectively]. Mean age at diagnosis in S beta [+], group was higher than in SS and Sp° groups [7.45 year vs 4.26 and 4.25 year] [P<0.001]. In addition, S beta° and S beta[+] groups had
significantly lower MCV, MCH, and HbRBC indices compared with control group. We suggest that in an anemic patient with history of pain crises, normochromic normocytic anemia, HbRBC <45 and MCH/RBC >/=7, SCD should be considered and the patient evaluated accordingly to confirm the diagnosis.

epidemiology

The prevalence of sickle cell anaemia in northern areas of algadaref state, Sudan.
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Ahfad University for Women - Sudan - Ahfad Center for Science and Technology
Keywords: Prevalence; Electrophoresis; Hemoglobins; Cross-Sectional Studies; Consanguinity
Abstract: Sickle cell anemia is one of the major types of anemia found in Sudan, especially in western Sudan in which the sickle cell gene is frequent. This study estimates the prevalence of sickle cell anemia in other areas rather than western Sudan where it is more prevalent [Algadaref state]. 100 blood samples of blood were taken from different tribes [eleven tribes] living in the northern area of Al-gadaref state. 24 samples were collected from urban area, 76 from rural area, all tribes originated from Afro-Asiatic speaking regions. All samples were tested for complete blood count [CBC], and haemoglobin electrophoresis. The study revealed that the majority of sickle cell anemia cases was found among the Masaleet tribe. 20 samples were [Hb-SS], SSsamples were [Hb- AS] and 25 samples were [Hb -AA].

Anesthesia

Update on anesthesia considerations for electroconvulsive therapy.
Mayo, Cody; Kaye, Alan D.; Conrad, Erich; Baluch, Amir; Frost, Elizabeth
Methodist Hospital - Department of Internal Medicine
Keywords: Electroconvulsive Therapy; Depression-therapy; Drug Interactions; Hemodynamics-drug effects
Abstract: Depression is diagnosed in 14 million Americans every year, and pharmacotherapy is the standard treatment. However, in approximately 50% of patients, pharmacology intervention does not resolve depression. Electroconvulsive therapy [ECT] has been a mainstay as a treatment option for treatment-resistant major depression since its inception in the 1930s. It has also been shown to be effective in treatment-resistant mania and catatonic schizophrenia. The complication rate of ECT has improved from 50% in the 1960's to almost anecdotal adverse events, similar to the morbidity and mortality seen in minor surgery and childbirth. Although anesthetic agents are administered briefly, many patients experience significant fluctuations in physiologic parameters. The clinical anesthesiologist must be aware of these changes as well as have an understanding of perioperative pharmacological interventions. ECT is a proven therapy for select psychiatric patients, and appropriate anesthesia is a critical part of successful ECT. Careful review of the patient's medical history may reveal pertinent anesthetic considerations.

Anesthesia, Spinal

Spinal anesthesia for transurethral resection operations: levobupivacaine with or without fentanyl.
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Middle East Journal of Anesthesiology 2010; 20 (4): 547-552 (15 ref.)
Keywords: Transurethral Resection of Prostate; Prospective Studies; Double-Blind Method; Fentanyl; Bupivacaine-analogs and derivatives; Treatment Outcome
Abstract: The objective of the present study was double fold; to compare the characteristics of spinal blocks produced by 0.5% levobupivacaine with and without fentanyl in transurethral resection and to test the hypothesis that, fentanyl added to levobupivacaine, may be used as an alternative to pure levobupivacaine solution, in spinal anesthesia. Forty males, aged >60 years, ASA I-III patients scheduled for elective transurethral resection were included in a prospective, randomized, double-blinded study. Following a spinal tap, intrathecal injection in Group L [n = 20], 2.5 mL of 0.5% levobupivacaine and in Group LF [n = 20], 2.2 mL of 0.5% levobupivacaine with fentanyl 15 micro g [0.3 mL] was performed. The characteristics of sensory and motor block, hemodynamic data, side effects, patient and surgeon satisfaction were recorded. Patients were observed until the level of sensory block was S[1] and the Bromage score was 0. There were no significant differences between the two groups for patient demographic, intraoperative, hemodynamic parameters, side effects and satisfaction. The highest level of sensory block was T[9] in the Group L, and T[6] in the Group LF [p = 0.001]. Duration of motor block was shorter in Group LF than in Group L [291.00 +/- 81.08 min in Group L; 213.75 +/- 59.49 min in Group LF] [p = 0.001]. Both regimes are effective, and the addition of fentanyl to levobupivacaine may offers the advantage of shorter duration of motor block and may be used as an alternative to pure levobupivacaine solution in spinal anesthesia, for transurethral resections.
Anesthesiology

manpower

The occupational fatigue in anesthesiologists: illusion or real?
Mansour, Afaf; Riad, Walked; Moussa, Ashraf
Alexandria University - College of Medicine - Psychiatry Department
Middle East Journal of Anesthesiology 2010; 20 (4): 529-534 (25 ref.)
Keywords: Fatigue-epidemiology; Risk Factors; Questionnaires; Mental Health; Stress, Psychological; Sex Distribution
Abstract: Fatigue is usually reported after lack of sleep or excessive physical or mental effort. Endocrine disorders are also associated with the symptoms of fatigue. Symptoms of fatigue were reported 20% of working population. Anesthesiologists are more exposed to stress at work because of long working hours and high demand of the job. The aim of this study was to evaluate fatigue at work from anesthesiologist' own perspectives and to identify the possible risk factors associated with fatigue. Two hundred and ten persons, were participated in this survey, they were 50 anesthesiologists, 60 diabetic patients and 100 employees. Participants were asked to answer two self report Questionnaires: The Multidimensional Fatigue Inventory [MFI-20] and General Health Questionnaire [GHQ-12] which used to assess the degree of fatigue and mental health respectively. Total fatigue score was significant in anesthesiologists compared to both patients [P value = 0.047] and employees [P value < 0.001]. All sub-items of fatigue score were higher in anesthesiologists compared to those of employees [P value < 0.001], however only general and mental fatigue were higher in comparison to patients [P value = 0.02]. The GHQ score of the anesthesiologists was significantly higher when compared to those of the employees [P value < 0.001] but no difference with patients [P value = 0.090]. Physical, mental and total score of fatigue were higher in female anesthesiologist. Fatigue and psychological distress are common among anesthesiologists in comparison to patients and ordinary hospital employees. Female anesthesiologists were affected more by fatigue.

Anthropometry

Mid-upper arm circumference based undernutrition among Bengalee children of Chapra, West Bengal, India.
Biswas, Sadaruddin; Bose, Kaushik; Mukhopadhyay, Ashish; Bhadra, Mithu
Vidyasagar University - Department of Anthropology
Keywords: Malnutrition; Arm; Cross-Sectional Studies; Nutrition Assessment
Abstract: To investigate age and sex variations in undernutrition using mid-upper arm circumference [MUAC] cut-off values among 2016 [930 boys and 1086 girls], 3-5 years old rural children of Bengalee ethnicity at 66 Integrated Child Development Services [ICDS] Centers of Nadia District, West Bengal, India. In a cross sectional study in west Bengal of India, MUAC was measured using standard technique. A total of 2028 children [935 boys and 1093 girls] from 66 ICDS centers were enrolled in this study. The response rate was approximately 95%. Mean MUAC among boys was higher than girls at all ages except 5 years. Significant sex differences were not observed over ages. The age-combined rates of overall [moderate and severe] undernutrition among boys [38.49%] was higher than among girls [32.22%]. The age-combined rates of moderate undernutrition were 36.34% and 31.03% among boys and girls, respectively. The rates of severe undernutrition were 2.15% and 1.20% among boys and girls, respectively. There were sex differences in both moderate and severe undernutrition. In general, there was an increasing trend in the rates of overall undernutrition from 3 to 5 years in both sexes. These children were experiencing severe nutritional stress.

Aortic Aneurysm, Abdominal

surgery

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PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 140-142 (9 ref.)
Keywords: Aortic Aneurysm, Abdominal-complications; Anesthesia
Aortic Coarctation

surgery

A picture is worth a thousand words subclavian to aorta bypass for adult aortic coarctation.
Kinoglu, Barbaras; Hokenek, Faruk; Ugurlucan, Murat; Kaplan, Levent
Medical Park Hospital - Cardiovascular Surgery Clinic
Heart Views 2010; 11 (1): 24 (3 ref.)
Keywords: Aorta-surgery; Subclavian Artery-surgery; Treatment Outcome

Appendectomy

methods

Per-operative findings and post-operative complications with laparoscopic appendicectomy.
Jan, Waqar Alam; Usman, Muhammad; Abdul Haleem; Khan, Sajjad Muhammad; Khan, Abdus Samad; Hussain, Mushtaq
Lady Reading Hospital - Department of Surgery
JPMI - Journal of Postgraduate Medical Institute 2010; 24 (1): 52-57 (45 ref.)
Keywords: Laparoscopy; Postoperative Complications; Treatment Outcome; Length of Stay
Abstract: To study the per-operative findings and post-operative complications that arise with laparoscopic appendicectomy. Material and Methods: This descriptive study was conducted in Surgical "A" and Surgical "C" Unit of PGMI, Lady Reading Hospital from April 2006 to December 2008. Patients with acute appendicitis, short history, age ranges from 15 to 50 years and recurrent appendicitis were included in this study, while patients with appendicular mass, appendicular abscess, pregnancy and with previous abdominal surgery were excluded. All the data was collected by using a proforma. Data was analyzed by descriptive statistics. Out of 60 patients admitted for Laparoscopic Appendicectomy [LA], 36[60%] were males and 24[40%] were females. Only 6[10%] patients required conversion from laparoscopic to open surgery. Problems and per-operative complications were encountered in 9[15%] patients. These were dense adhesions due to inflammation 4[6.66%], localized perforation 2[3.33%], diffuse peritonitis 2[3.33%] and bleeding during procedure 1[1.66%]. Postoperative complications were seen in 5[8.33%] cases, out of which 2[3.33%] patients developed port site infection, 1[1.66%] patient developed postoperative ileus, 1[1.66%] patient developed partial bowel obstruction and 1[1.66%] patient presented with right iliac fossa abscess. There was no mortality. All patients resumed normal activity within 6-7 days of operation and were well satisfied up to median follow-up of 5-6 months. Majority of the patients were males. Per-operative findings were adhesions, perforation and peritonitis. Post-operative complications were port-site infection, ileus and bowel obstruction. Majority recovered within a week time.

Appendicitis

diagnosis

Comparison of helical computed tomography and ultrasonography in diagnosis of acute appendicitis.
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Combined Military Hospital
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 89-94 (28 ref.)
Keywords: Appendicitis-ultrasonography; Tomography, Spiral Computed; Appendectomy; Sensitivity and Specificity; Predictive Value of Tests
Abstract: The objective of study is to compare the diagnostic accuracy of helical computed tomography and ultrasonography in acute appendicitis using histopathology as gold standard. Validation study. Department of Radiology CMH/MH Rawalpindi, from 06 April 2007 to 02 January 2008. Thirty cases of clinically suspected acute appendicitis were included in the study selected on non probability convenience sampling technique. Computed tomography and graded compression ultrasonography of right lower quadrant of abdomen were conducted and results compared with histopathological findings. Amongst 30 patients who underwent computed tomography and graded compression ultrasonography examinations of right lower quadrant for diagnosis of acute appendicitis, on computed tomography 19 were diagnosed with acute appendicitis, 10 were diagnosed as not having the disease and 01 patient diagnosed as not having appendicitis on computed tomography did not improve clinically, was operated upon and
histopathology proved it as acute appendicitis. While on graded compression ultrasonography 15 were diagnosed with acute appendicitis, 11 were diagnosed as not having the disease and 04 patients diagnosed as not having appendicitis on ultrasonography, did not improve clinically, were operated upon and histopathology proved it as acute appendicitis. This showed that CT scan has sensitivity of 95%, specificity 100%, positive predictive value 100%, negative predictive value 90.91% and overall accuracy of 96.67% while ultrasonography has sensitivity of 78.9%, specificity 100%, positive predictive value 100%, negative predictive value 73.33% and overall accuracy of 86.67%. We concluded that Helical computed tomography is highly accurate in diagnosing acute appendicitis as compared to ultrasonography and it helps to reduce negative appendectomy rate.

**parasitology**

**Appendiceal ascariasis in children.**
Wani, Imtiaz; Maqbool, Muddasir; Amin, Abid; Shah, Firdous; Keema, Arshad; Singh, Jang; Kitagawa, Maki; Nazir, Mir
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Shakaihoken Kobe Central Hospital - Department of Surgery
**Keywords:** Ascariasis-diagnosis; Appendicitis-diagnosis

**Abstract:** The propensity of Ascaris lumbricoides to wander leads to varied surgical complications in the abdomen. Wandering A lumbricoides may sometimes reach the vermiform appendix and its presence there may remain silent or incite pathology. Our aim was to study ascarial appendicitis. Over a period of 3 years, we identified children who were found to have appendiceal ascariasis during surgery for different intestinal complications due to ascariasis. We studied the relationship between ascariasis and its lodgement inside the vermiform appendix in these patients. No preoperative diagnosis was made in this series. We found 11 patients with appendiceal ascariasis. It was incidentally found that 8/11 [72.7%] patients had worms inside their vermiform appendix but not appendicitis, whereas the remaining three patients [27.2%] were found to have Ascaris-associated appendicitis. The characteristic finding in Ascaris-infested vermiform appendix was that the worm is positioned with its head at the base and its tail at the tip of the appendix. Migration of A lumbricoides inside the vermiform appendix is an incidental finding and tends to pursue a silent course in most patients. Only rarely does the presence of Ascaris inside the vermiform appendix cause appendicitis.

**Arteries**

**injuries**

**Management of iatrogenic rupture of profunda femoris artery after femoral fracture fixation with stent graft implantation.**
Varastehravan, Hamidreza; Nough, Hossein; Ansari, Zahra
Shaheed Sadoughi University of Medical Sciences - Afshar Hospital
Journal of Tehran University Heart Center [The] 2010; 5 (1): 42-44 (12 ref.)
**Keywords:** Femoral Fractures-complications; Femoral Fractures-surgery; Stents; Fracture Fixation-adverse effects; Angiography; Iatrogenic Disease

**Abstract:** Vascular injuries with acute or chronic arterial hemorrhage after femoral shaft fractures are a rare but a life-threatening complication. We observed a case of iatrogenic rupture of the profunda femoris artery after the internal fixation of a femoral shaft fracture. The pseudoaneurysm, presenting with painful expansile swelling and hemodynamic instability, together with the rupture was evident on femoral angiography. Endovascular stent graft placement was performed successfully, and there was no sign or symptom at 9 months’ follow-up.

**Athletes**

**Heart and athlete.**
Alasti, Mohammad; Omidvar, Bita; Jadbabaei, Mohammad Hossein
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Jondishpour University of Medical Sciences - Imam Khomeini Hospital - Department of Cardiology
**Keywords:** Heart Diseases; Death, Sudden, Cardiac; Electrocardiography; Diagnosis, Differential; Arrhythmias, Cardiac

**Abstract:** Regular participation in intensive physical exercise is associated with electro-morphological changes in the heart. This benign process is called athlete's heart. Athlete's heart resembles few pathologic conditions in some aspects. So differentiation of these conditions is very important which otherwise may lead to a catastrophic event such as sudden death. The most common causes of sudden death in young athletes are cardiomyopathies, congenital
coronary anomalies, and ion channelopathies. The appropriate screening strategy to prevent sudden cardiac death in athletes remains a challenging issue. The purpose of this review is to describe the characteristics of athlete's heart and demonstrate how to differentiate it from pathologic conditions that can cause sudden death.

**Atracurium**

**therapeutic use**

The effect of addition of low dose atracurium to local anesthetic in retrobulbar block for cataract surgery.
Eghbal, Mohammad Hossein; Tabei, Hesam; Taregh, Shoja Alhagh; Razeghinejad, Mohammad Reza
Shiraz University of Medical Sciences - Department of Anesthesiology

**Keywords:** Cataract Extraction; Atracurium-administration and dosage; Anesthetics, Local; Nerve Block; Double-Blind Method; Treatment Outcome

**Abstract:** Addition of some neuromuscular blockers to local anesthetics proved to be effective in improving the quality of anesthesia in different regional techniques. This study was carried out to determine whether the addition of low-dose atracurium to a local anesthetic has any effect on the onset and duration of akinesia in retrobulbar block. This study was conducted on sixty-four unpremedicated, ASA I or II patients scheduled for cataract surgery under local anesthesia. The patients were assigned to one of the two treatment groups in a randomized, double-blind manner. The case group received 2 ml of 2% lidocaine [40 mg] and 0.5 mL atracurium [5 mg]. The control group received 2 ml of 2% lidocaine [40 mg] and 0.5 ml 0.9% NaCl. The onset of akinesia [the inability to move the eye in all four directions] was scored as 0 to 2: 0, no akinesia; 1, partial akinesia; and 2, complete akinesia. The onset and duration of akinesia and also adverse effects and complications of each method were recorded throughout the study. In 4 out of 64 patients, complete akinesia was not achieved and statistical analysis was done on 60 others with complete akinesia. With regard to age, sex, weight, and duration of the surgery, there were no significant differences between the case and control groups. The onset of complete akinesia was quicker and duration longer in the case group than in the control group. The onset of complete block was 4.7 +/- 1.1 minutes in the case group and 6.9 +/- 0.96 minutes in the control group [P<0.001]. The duration of akinesia was 104.07 +/- 17.6 minutes in the case group and 87.1 +/- 16.2 minutes in the control group [P<0.001]. This study demonstrated that atracurium had a local action on the extraocular muscles. It shortened the onset period of retrobulbar block, prolonged its duration, and provided excellent surgical conditions without any specific complications.

**Atrial Fibrillation**

**etiology**

A case of atrial fibrillation due to Momordica charantia [bitter melon].
Erden, Ismail; Ordu, Serkan; Erden, Emine C.; Caglar, Sabri O.
Duzce University - Medicine Faculty - Department of Cardiology
Annals of Saudi Medicine 2010; 30 (1): 86-87 (6 ref.)

**Keywords:** Momordica; Cucurbitaceae; Phytotherapy-adverse effects; Electrocardiography

**Biopsy**

**methods**

Comparison of diagnostic accuracy of core biopsy for breast lesions with fine needle aspiration cytology.
Naqvi, Syeda Rifaat Qamar; Ahmed, Tahir Masood; Naqvi, Syeda Saima Qamar; Jan, Behrawar
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Combined Military Hospital - Surgical Department
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 59-62 (11 ref.)

**Keywords:** Biopsy, Fine-Needle; Cross-Sectional Studies; Breast-pathology; Sensitivity and Specificity

**Abstract:** To assess and compare the diagnostic usefulness of fine needle aspiration cytology [FNAC] of trucut biopsy of breast lesion. A comparative cross sectional study. The study was conducted in the surgical and pathology department of CMH Peshawar from February to August 2007. The first eighty two consenting female patients
presenting with palpable breast lumps were subjected to FNAC then Trucut biopsy under local anaesthesia and later excision biopsy. Finally the results of FNAC and Trucut biopsy were compared in the light of excision biopsy results. There were 18 malignant and 64 benign cases on histopathology. On FNAC there were 5 in C5 category [confirmed on histopathology], 12 in C4 category [10 malignant on histopathology], 22 in C3 category [1 malignant on histopathology], 27 in C2 category [confirmed on histopathology] and 16 in C1 category [2 malignant on histopathology]. On Trucut 60 were benign and 17 malignant all of which were confirmed on histopathology. Five specimens were inadequate on Trucut [1 malignant on histopathology]. Sensitivities of FNAC and Trucut biopsy were 93.75-% and 100% and specificities were 96% and 100% respectively. Area under Receiver Operating Characteristic [ROC] curve for Trucut biopsy was found to be more than that of FNAC, showing that Trucut biopsy was more accurate than FNAC. Trucut biopsy has significantly higher diagnostic accuracy as compared to FNAC.

Blood Glucose

Estimated average glucose: a new term in diabetes control.
Dib, Jean G.
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Pharmacy Services Division
Keywords: Hemoglobin A, Glycosylated; Blood Glucose Self-Monitoring

Blood Vessels

Experience of vascular trauma in a tertiary care hospital.
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Combined Military Hospital
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 79-83 (22 ref.)
Keywords: Wounds, Nonpenetrating; Wounds, Penetrating; Wound Infection; Arteriovenous Fistula; Aneurysm, False; Vascular Surgical Procedures
Abstract: To highlight the presentation and management of various vascular injuries and their outcome. Descriptive study. Surgical unit III, Combined Military Hospital, Rawalpindi, from September 2005 to October 2006. Thirty nine cases of vascular trauma were referred to vascular surgeon CMH Rawalpindi, in the above mentioned period. These cases were evaluated for mechanism of injury, age, gender and time of presentation. Out of these, only thirty cases were found suitable for surgical intervention. These thirty cases were evaluated for site of vascular injury, associated injuries, type of surgery performed and the outcome. Blunt trauma was the predominant cause of vascular injuries in our study 16/39 [41%]. Fourteen cases [35.8%] had gun shot wounds. Only thirty patients [76.9%] underwent various surgical procedures. Primary end to end anastomosis was possible in only 5/30 cases [16.6%] while reversed venous graft was used in 13/30 cases [43.3%]. Wound infection occurred in 2/30 [6.6%] cases out of which 1 case [3.3%] ultimately had an amputation. The time period between injury and surgical intervention ranged between 1 to 20 hours for most of the vascular injuries while delayed presentation in the form of traumatic arteriovenous fistula or pseudoaneurysm was between 48 hours to 3 months. There are reasonable numbers of vascular trauma cases being referred to a tertiary care hospital. Most of these cases reach us quite late due to unnecessary investigations, delayed referral and transportation. Early intervention and revascularization definitely reduces amputation and complication rate. All gunshot wounds not only require thorough surrounding soft tissue debridement but also liberal excision of traumatised vessel itself, resulting in interposition graft repair.

Bone Density

Comparing bone mineral density in postmenopausal women with and without vertebral fracture and its value in recognizing high-risk individuals.
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Babol University of Medical Sciences - Department of Internal Medicine
Keywords: Risk Assessment; Osteoporosis, Postmenopausal; Spinal Fractures; Sensitivity and Specificity
Abstract: Vertebral fracture, the hallmark of osteoporosis, usually occurs in postmenopausal women with low bone mineral density [BMD]. The aim this study was to determine which BMD parameter can best predict women at high risk of fracture. BMD values at the spine and femoral neck were compared in 34 women with vertebral fracture and 34
controls. Mean BMD [g/cm²], T-score, and Z-score values at both femoral neck and spine were significantly lower in the fracture than the nonfracture group. Z-score was more sensitive than BMD T-score for detecting low bone mass. T-score was not sensitive enough to identify low BMD in the spine, whereas the femoral neck T-score could recognize women at high risk of fracture with higher accuracy.

**Brain Ischemia**

**etiology**

The possible protective effect of exroxisome proliferator-activated receptors-gamma [PPAR-gamma]-agonist in middle cerebral artery occlusion-induced focal cerebral ischemia in rats.

Ghoneim, M. Tharwat; Mohamed, Mervat E.; Mohamed, Adham R.
Alexandria University - Faculty of Medicine - Department of Clinical Pharmacology

**Bulletin of Alexandria Faculty of Medicine** 2009; 45 (1): 149-155 (42 ref.)

**Keywords:** Infarction, Middle Cerebral Artery; Protective Agents; PPAR gamma-blood; Tumor Necrosis Factors-blood; Interleukin-6-blood; Glutathione; Glutathione Peroxidase; Rats

**Abstract:** Focal cerebral ischemia [st,oke] is a leading cause of death and disability among adult population. Many pathological events including inflammation and oxidative stress during the acute period contribute to the secondary neuronal death. Peroxisome proliferator-activated receptors [PPARs] are ligand-activated transcription factors known to upstream to many inflammatory and antioxidant genes. The present study was carried out to evaluate the physiological role of PPAR-gamma and possible neuroprotective effects of its agonist, rosiglitazone, in experimentally induced focal cerebral ischemia in rats. The current study was conducted on 30 male albino rats [180-220 gm], they were divided into 3 groups: Group 1: included 10 normal healthy control rats that were sham operated. Group 2: included 10 rats that were subjected to middle cerebral artery occlusion [MCAO] induced focal cerebral ischemia for 2 h followed by reperfusion for 22 h. Group 3: included 10 rats that were pretreated with rosiglitazone 3mg/kg body weight orally for 7 days followed by MCAO induced focal cerebral ischemia. The following parameters were assessed in all rats of the studied groups: Serum levels of both tumor necrosis-alpha [TNF-alpha] and interleukin-6 [IL-6] and cerebral cortex tissue levels of glutathione reductase [GR], reduced glutathi one [GSH] and glutathi one peroxidase [GPx]. The present study revealed that the induced focal cerebral ischemia in rats of group 2 was associated with a statistical sign i cant increase in serum levels of both TNF-alpha and IL-6 as compared to normal controls. Pretreatment of rats with rosiglitazone in group 3 resulted in a statistical significant reduction of the TNF-alpha and IL-6 levels as compared to group 2 [This reflects that the ischemic neuronal injury is associated with massive inflammatory processes that lead to brain damage]. And treatment with rosiglitazone could have an anti-inflammatory neuroprotective role. Considering the brain tissue levels of GR, GSH and GPx, which are tissue oxidant defense mechanisms, the present study showed that focal cerebral ischemia in rats of group 2 led to a statistical significant reduction in their levels as compared to control group indicating that cerebral ischemia and reperfusion are responsible for oxidative stress by generation of free radicals which culminate to serious damaging effect and overproduction of free radicals takes the upper hand and predominates the detoxication and scavenging capacity of cellular antioxidant enzymes. Treatment of rats with rosiglitazone before induction of focal cerebral ischemia led to a statistical significant increase in the brain tissue levels of defense antioxidant enzymes as GR and GPx as well as GSH assuming its potential neuroprotective role which could be due to its ability to increase the natural defense mechanisms in case of ischemic oxidative stress. PPAR-gamma agonist [rosiglitzone] could be the drug of use in stroke therapy due to its potential to influence multiple molecular mechanisms by its ability to minimize both the inflammation and oxidative stress and at the same time promotes the antioxidant defense mechanisms and protein chaperones.

**Breastfeeding**

**epidemiology**

Knowledge and practices of women in Monastir, Tunisia regarding breastfeeding.

Bouanene, I.; El Mhamdi, S.; Sriha, A.; Bouslah, A.; Soltani, M.

**EMHJ - Eastern Mediterranean Health Journal** 2010; 16 (8): 879-885 (33 ref.)

**Keywords:** Health Knowledge, Attitudes, Practice; Mothers; Questionnaires

**Abstract:** We assessed the prevalence of breastfeeding and its determinants and mothers' knowledge and practices towards this issue among 354 women attending primary health centres for their child's 6-month vaccination in the region of Monastir in 2008. The mean age of the women was 30 [SD 5.5] years. Most [90.8%] knew that breastfeeding helped prevent infections in babies but only 38.5% knew that breast milk supplies all infant feeding needs until 6 months of age. While 94.4% breastfed their babies to start, only 1.9% continued exclusive breastfeeding until 6 months. Main reasons for stopping breastfeeding were perceived breast milk insufficiency followed by return to work. Exclusive breastfeeding over 3 months was associated with skin-to-skin contact [OR = 1.93; 95% CI: 1.016-3.69] and mothers’ knowledge about breast milk benefits [OR = 2.8; 95% CI: 1.2-6.6] Early weaning was related to using pacifiers and breast-milk substitutes [OR = 0.17; 95% CI: 0.08-0.36 and OR = 0.14; 95% CI: 0.05-0.38 respectively].
Breast Neoplasms

etiology

Breast cancer: an occupational disease.
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Medical Education and Research Center
Keywords: Occupational Diseases; Risk Factors; Age Factors; Light; Sleep; Circadian Rhythm; Melatonin

Burns

therapy

Comparative study between two techniques of moist exposure burn therapy [MEBT] in facial burns.
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Ain Shams University - Department of Plastic and Reconstructive Surgery
Suez Canal University Medical Journal 2009; 12 (1): 31-40 (46 ref.)
Keywords: Face; Bandages, Hydrocolloid; Wound Healing; Cicatrix; Comparative Study
Abstract: Burn injuries cause extensive damage and are evidently complicated by loss of body fluids. Such wounds become seriously infected further aggravating morbidity. So the use of local treatment is probably the most significant change in recent years leading to improvement in morbidity rates of burn victims at a substantially lower cost. By shortening hospital stay, early wound care reduces associated pain, number of operative procedures and infective complications. It also enhances the quality of the resulting scar and promotes quicker healing. Irrespective of any other consideration, early healing is paramount for good aesthetic and functional recovery. To compared two techniques of moist exposure burn therapy to show their effect in the management of partial thickness facial burns. In this study sixty patients with superficial facial burn were chosen for comparison between Moist exposed burn ointment MEBO[TM] and Hydrocolloid gel Duoderm[TM] Hythoactive Gel. They were divided equally into two groups with equal criteria of selection. Objective and subjective assessment was done to these patients. There was no statistical difference in the healing time taken for the face-wound between the two groups; none of the patients in either group required any reconstructive surgery to the face in the immediate post injury period up to 6 months. DuodermTM has gained good reputation as regard its odorless characteristics and less wound infection rates with increased aesthetic pleasing results of the scars. Both show similarity in results and cost benefits with little advantage of the Duoderm[TM] Hydroactive [TM] Gel which was statistically insignificant.

Burns, Chemical

Phenol burn.
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NIOC Health Organization Polyclinics
Keywords: Phenol; Skin-injuries; First Aid; Safety

Calcinosis

epidemiology

Electrocardiogram abnormalities and coronary calcification in postmenopausal women.
Sabour, Siamak; Grobbee, Diederick; Rutten, Annemarieke; Prokop, Mathias; Bartelink, Marie Louise; Schouw, Yvonne van der; Bots, Michiel
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Tabriz University of Medical Sciences - Faculty of Health - Department of Epidemiology and Biostatistics

**Keywords:** Coronary Artery Disease; Hypertrophy, Left Ventricular; Atherosclerosis; Postmenopause; Electrocardiography; Cohort Studies; Women

**Abstract:** An electrocardiogram [ECG] can provide information on subclinical myocardial damage. The presence, and more importantly the quantity of coronary artery calcification [CAC], relates well with the overall severity of the atherosclerotic process. A strong relation has been demonstrated between coronary calcium burden and the incidence of myocardial infarction, a relation independent of age. The aim of this study was to assess the relation of left ventricular hypertrophy [LVH] and ECG abnormalities with CAC. The study population comprised 566 postmenopausal women selected from a population-hated cohort study. Information on LVH and repolarization abnormalities [T-axis and QRS-T angle] was obtained using electrocardiography Modular ECG Analysis System [MEANS] was used to assess ECG abnormalities. The women underwent a multi detector-row computed tomography [MDCT] scan [Philips Mx 8000 IDT 16] to assess CAC. The Agatston score was used to quantify CAC; scores greater than zero were considered as the presence of coronary calcium. Logistic regression was used to assess the relation of ECG abnormality with coronary calcification. LVH was found in 2.7% [n = 15] of the women. The prevalence of T-axis abnormality was 6% [n = 34], whereas 8.5% [n = 48] had a QRS-T angle abnormality. CAC was found in 62% of the women. Compared to women with a normal T-axis, women with borderline or abnormal T-axes were 3.8 fold more likely to have CAC [95% CI: 1.4-10.2]. Similarly compared to women with a normal QRS-T angle, in women with borderline or abnormal QRS-T angle, CAC was 2.0 fold more likely to be present [95% CI: 1.0-4.1]. Among women with ECG abnormalities reflecting subclinical ischemia, CAC is commonly found and may in part explain the increased coronary heart disease risk associated with these ECG abnormalities.

**Carcinoma, Adenoid Cystic**

**diagnosis**


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**Keywords:** Salivary Gland Neoplasms-diagnosis; Prognosis; Proto-Oncogene Protein c-kit; Antigens, CD43

**Abstract:** Adenoid cystic carcinoma [ACC] of the salivary gland is characterized by a prolonged but inevitably unfavorable clinical course. Recent studies have suggested that the transmembrane tyrosine kinase receptor, c-kit proto-oncogene is involved in ACC pathogenesis. CD43 is a sialoglycoprotein that is typically expressed by hematopoietic cells and their derivative neoplasms, although positivity in epithelial tumors has only been recognized recently. The aim of this study was to evaluate c-kit and CD43 immunoreactivity in ACCs and to compare the extent of their expression in various histologically defined subgroups of ACC, and their probable involvement in ACC pathogenesis. Formalin-fixed paraffin-embedded sections from 35 ACCs were immunostained for c-kit and CD43 using monoclonal antibodies. Cytoplasmic and membranous c-kit immunoreactivity was detected in 25/35 ACCs [71.4%] with strong immunostaining observed in solid pattern of ACC. Cytoplasmic and membranous CD43 immunoreactivity was detected in 18/35 [51.4%] of ACCs with strong immunostaining seen in the cribriform pattern. These results suggested that c-kit could be used as a prognostic marker for ACC and specific c-kit tyrosine kinase inhibitors such as imatinib, might be used in future therapeutic approaches against subgroups of ACC. CD43 appears to be preferentially expressed in salivary gland ACCs. Its expression decreased with cellular dedifferentiation and there was an inverse relationship between immunoreexpression of c-kit and CD43 among ACC of salivary gland.

**Cardiovascular Diseases**

**etiology**

Prevalence of risk factors for cardiovascular diseases among journalists in Peshawar - the Peshawar heart study.

Fawad, Ahmad; Hafizullah, Mohammad; Saqib, M.; Gul, Adnan Mahmood; Jan, Hikmatullah; Faheem, Mohammad

Lady Reading Hospital - Department of Cardiology

JPMI - Journal of Postgraduate Medical Institute 2010; 24 (1): 46-51 (20 ref.)

**Keywords:** Journalism-manpower; Risk Factors; Prevalence; Life Style; Obesity; Hypertension; Smoking

**Abstract:** To assess the prevalence of risk factors for cardiovascular diseases in journalists working in Peshawar. This was a descriptive study involving journalists working in Peshawar recruited in Peshawar Heart Study [PHS]. All participants were interviewed in detail including family history, past medical history, smoking history and medications history. Dietary habits were explored. All participants’ pulse, blood pressure, BMI and waist hip ratio was determined.
Their random blood sugar and total cholesterol was checked. Data was analyzed for cardiovascular disease risk factors. Total of 150 Journalists were interviewed at press club Peshawar. Mean age was 32 +/- 7.7 years. Current smokers were 36% [n=54]. Naswar was consumed by 6% [n=10]. Family history of cardiovascular disease was present in 30% [n=46]. Only 26% [n=40] took regular exercise. Mean Body Mass Index was 25.68 +/- 4.78. Mean W/H ratio was 0.91 +/- 0.03. Mean systolic blood pressure was 115.31 +/- 14.63 mmHg while 20% [n=31] had systolic of > 140 mmHg. Mean diastolic blood pressure was 75.30 +/- 9.92 mmHg. Mean cholesterol was 158.53 +/- 20.31 mg%. Mean random blood sugar was 98.28 +/- 32.12 mg% with five journalists having more than 180mg%. Risks factors for cardiovascular disease like obesity, smoking, sedentary lifestyle, hypercholesterolemia and hypertension were found prevalent among the journalists working in district Peshawar.

**Carotid Stenosis**

**epidemiology**

Screening of carotid artery stenosis in coronary artery bypass grafting patients.
Salehiomran, Abbas; Shirani, Shapour; Karimi, Abbasali; Ahmadi, Hossein; Marzban, Mehrab; Movahedi, Namvar; Moshtaghi, Naghmeh; Abbasi, Seyed Hesameddin
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Tehran University of Medical Sciences - Tehran Heart Center

**Keywords:** Coronary Artery Bypass; Mass Screening; Retrospective Studies; Echocardiography, Doppler; Stroke; Sex Factors; Age Factors

**Abstract:** We sought to evaluate the routine echo-Doppler screening of carotid artery stenosis in patients undergoing coronary artery bypass grafting. A total of 2179 consecutive patients who underwent coronary artery bypass grafting alone or with other cardiac surgery at Tehran Heart center, Tehran-Iran, between January 2005 and January 2006 were included in this retrospective study. Carotid Doppler was performed for 1604 [81.48%] of these patients. The patients' age ranged between 20 and 84 years [mean: 58.33, SD : 10.08 years]. Of the 1604 patients studied, 1186 [73.9%] were men, 592 [36.9%] had diabetes, 598 [37.3%] were smokers, and 194 [12.1%] cases had significant left main stenosis. Twenty-one [1.3%] patients had significant carotid stenosis (> 60% stenosis), which constituted 0.9% of all the bypass surgery candidates. Post-operative cerebrovascular accident was not detected in any of the patients with significant carotid stenosis, but cerebrovascular accident occurred in 22 [1.4%] of the patients without carotid stenosis. Magnetic resonance angiography [MRA] was conducted in 15 patients. In our univariate analysis, female gender [p value = 0.023], hypertension [p value 0.055], peripheral vascular disease [p value < 0.001], and age [p value = 0.001] were significant in the development of carotid stenosis. Pre-operative duplex carotid screening seems to be necessary in patients when there is hypertension, peripheral vascular disease, female gender and advanced age.

**Catheterization**

**adverse effects**

Intravesical catheter knot: prevention and management - a case report.
Aslam, Mohammad
JPIMI - Journal of Postgraduate Medical Institute 2010; 24 (1): 77-78 (9 ref.)

**Keywords:** Urinary Bladder

**Cephalometry**

Correlation of upper airway space and maxillary intermolar width.
Batool, Ifat; Rizvi, Syed Ausaf Ali; Abbas, Assad; Shaheed, Mehwish
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Armed Forces Institute of Dentistry - Head of Orthodontics Department
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 123-125 (12 ref.)

**Keywords:** Maxilla-anatomy and histology; Nasal Obstruction

**Abstract:** To access the relation between upper airway space and maxillary intermolar width. A descriptive study. The study was carried out at the orthodontics department of Armed Forces Institute of Dentistry Rawalpindi. The study was conducted at orthodontics department, Armed Forces Institute of Dentistry. Study casts and lateral cephalograms of 12 to 14 years old skeletal Class II patients with no previous history of orthodontic treatment or air way related surgery were included in the study. Upper airway space was measured on the cephalograms as described by McNamara Jr. Maxillary inter molar width was measured on the corresponding study casts using a digital caliper.
Pearson's correlation i.e. \( r = 0.18 \) showed a direct but insignificant correlation between upper airway space and maxillary intermolar width. This study failed to show any correlation between maxillary intermolar width and upper airway space, as has been postulated by some researchers.

**Cerebrovascular Circulation**

Cerebral blood flow patterns using single photon emission computed tomography in patients with dissociative disorders and healthy controls.

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Combined Military Hospital

**Keywords:** Dissociative Disorders; Tomography, Emission-Computed, Single-Photon; Cross-Sectional Studies

**Abstract:** To compare the cerebral blood flow (CBF) changes in patients diagnosed to have Dissociative Disorder with healthy controls. Cross sectional comparative study. The study was done in the Department of Psychiatry Military Hospital Rawalpindi in collaboration with Nuclear Medical Centre [NMC] Armed Forces Institute of Pathology [AFIP], a tertiary care centre of Pakistan Armed Forces from Dec 2004 to May 2005. This cross sectional comparative study was done at Dept of Psychiatry Military Hospital Rawalpindi in collaboration with Nuclear Medical Centre [NMC], at Armed Forces Institute of Pathology [AFIP] which is a tertiary referral center. A sample of 30 patients diagnosed as having Dissociative Disorder was compared with 10 controls for brain perfusion changes using TC-99m HMPAO [Hexamethylpropylene-amine-oxime] Tc-99m. In group 1 perfusion changes were observed in 27 [90%] cases whereas unremarkable and insignificant changes were noted in 3 [10%] cases but no perfusion were noted in controls \( P < 0.001 \). In patients who were suffering from different types of dissociative disorder marked cerebral hypoperfusion was observed in frontal, frontomotor, orbitofrontal and temporal regions whereas hyperperfusion was noted in frontal and orbitofrontal areas in few cases. Cerebral blood flow changes in the frontal parietal brain are associated with symptomatology in dissociative disorders.

**Cholecystectomy, Laparoscopic**

Laparoscopic cholecystectomy: an audit of cases done at a tertiary care hospital.

Rooh ul Muqim; Jan, Qutbe Alam; Zarin, Mohammad; Khan, Mansoor

Khyber Teaching Hospital - Department of Surgery

**Keywords:** Clinical Audit; Length of Stay; Treatment Outcome; Postoperative Complications

**Abstract:** The study aims to describe the complications and hospital stay associated with laparoscopic cholecystectomy. During the period from 01 August 2007 to 31 July 2009, all patients who were operated with laparoscopic cholecystectomy were included. The age, gender and other related data including the outcome and complications in 245 laparoscopic cholecystectomy cases were recorded. The findings documented in numbers and percentages were compared and discussed with those of other studies. 194 [78.79%] were females and 51 [21.21%] were males. Ages of female patients ranged from 25-51 years and of males from 28-54 years. Most of the patients were discharged on the 1st post-operative day. There were 13 cases converted to open surgery [5.3%]. Laparoscopic cholecystectomy was successfully completed in the remaining 232 patients with an average operating time of 93.74 +/- 21.7. Twenty four patients experienced morbidity. These included infections [n=10], bleeding [n=4], biliary peritonitis [n=5], visceral injury [n=1], pneumonia [n=2] and partial small bowel tear [n=2]. No bile duct injury or mortality was seen. Laparoscopic cholecystectomy is being performed in this setting with acceptable morbidity, mortality and conversion rates. A concerted effort to increase the performance of laparoscopic cholecystectomy may increase cost effectiveness in this setting.

**Chronic Disease epidemiology**

Different prevalence of chronic-non-infectious diseases.

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University Hospital of Birmingham - Department of Surgery

**Keywords:** Prevalence; Genetic Predisposition to Disease; Risk Factors; Mutation-genetics; Developed Countries

**Abstract:** Inflammatory bowel disease, coronary artery disease, cerebrovascular disease, hypertension, diabetes, tumours, are examples of chronic degenerative diseases that have a high prevalence in developed nations. These chronic-non-communicable diseases have multifactorial aetiologies that considered to be caused by the interaction of environmental risk factors with multiple predisposing genes. Genetic researches on these diseases have traditionally
focused on investigation aimed at identifying disease-susceptibility genes. Recent evidence suggests that somatically acquired DNA mutations may also contribute significantly to the pathogenesis of these disease states such as coronary artery disease indicating a similarity between the atherosclerotic and carcinogenic processes. The high incidences and prevalence of these chronic diseases in the Western World in comparison with the East and changing trends in disease incidence [seen in many countries] provide strong evidence that those environmental factors as playing a major influence in disease-expression. There is an ample reason to believe that environmental factors have contributed to inducing alterations in genetic code in precedent generations, which were subsequently inherited and further modified by modern lifestyle activities. Consequently, we now see the appearance of chronic degenerative diseases and their higher incidences in the Western nations as compared with the Eastern ones.

Cleft Lip

surgery

Evaluating anatomical subunit approximation technique for unilateral cleft lip repair.
Ajmal, Samira; Khan, Muhammad Ayub; Khan, Amir Taimur; Yousaf, Kanwal; Shadman, Muhammad; Iqbal, Tariq
Hayatabad Medical Complex - Lady Reading Hospital - Department of Plastic and Reconstructive Surgery
JPMI - Journal of Postgraduate Medical Institute 2010; 24 (1): 68-72 (15 ref.)

Keywords: Treatment Outcome; Reconstructive Surgical Procedures

Abstract: To evaluate the outcome of anatomical subunit approximation in unilateral cleft lip of different severity. Seventy four consecutive patients with cleft lip were seen in the outpatient department of Plastic and Reconstructive Surgery at Hayatabad Medical Complex, Peshawar and Plastic Surgery unit at Said Anwar Medical Centre, Peshawar, from 1[st] June 2007 to 31[st] December 2008. The severity was assessed and all of them were operated using David Fisher's anatomical subunit approximation technique. Postoperatively the vertical height of the lip was compared on the cleft and non cleft side along with symmetry of Cupid's bow and philtral column, the alignment of white roll, quality of the cutaneous lip scar, vermilion fullness and vermilion notching. The nose was evaluated by noting the nasal tip symmetry; alar rim level; alar base height and width; and nostril sill size, both pre and post operatively. Seventy two patients showed adequate vertical height and good nostril size, alar base height. Two patients showed 1.0 mm discrepancy of the vertical height as compared to the non cleft side. These belonged to the severe complete cleft lip category. This technique has shown good results in achieving vertical height and nostril size symmetry especially in incomplete and mild to moderate severity of complete cleft lip.

Colorectal Neoplasms

diagnosis

Role of MDCT colonography and conventional colonoscopy in evaluation of colo-rectal neoplasms.
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Al-Azhar Faculty of Medicine - Departments of Radiology
Suez Canal University Medical Journal 2009; 12 (1): 1-6 (13 ref.)

Keywords: Colonography, Computed Tomographic; Colonoscopy; Comparative Study

Abstract: The study was conducted to evaluate the role of MDCT colonography in diagnosis of colo-rectal neoplasms compared to conventional colonoscopy. Fifty patients were included in the present study 28 males and 22 females with age ranged from 2 1-75 years old. Patients were presented with variable-size large bowel masses examined by MDCT colonography and conventional colonoscopy. Twenty three-cases were diagnosed by CT colonography as colonic malignancy, 18 cases diagnosed by colonoscopy as colorectal benign polyps *8 polyps measured less than 5mm, 6polyps from 5-10mm and 4 more than 10mm*, those were correlated with findings of CT colonography which revealed only 12 benign polyps with size ranged from 6mm to more than 10 mm. The other 9 cases proved to be extra colonic metastases. MDCT colonography allows more definitive evaluation of the different colo-rectal and extra-colonic masses as it is non-invasive modality. It has a higher sensitivity for detecting a clinically suspected colonic neoplastic mass. The conventional colonoscopy may still have an advantage of detecting very small and superficial mucosal lesions and taking biopsy from the suspected superficial areas.
Conjunctival Diseases

diagnosis

Subconjunctival epithelial inclusion cyst complicating strabismus surgery: early excision is better.
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King Khaled Eye Specialist Hospital - Anterior Segment Division
Keywords: Conjunctival Diseases-surgery; Strabismus-surgery; Postoperative Complications; Cysts-diagnosis; Cysts-surgery
Abstract: Epithelial inclusion cysts can occur following otherwise uncomplicated strabismus surgery. Because of their tendency to grow posteriorly into the orbit, they should be monitored closely or treated when relatively small. We report and discuss an illustrative case.

Contraceptive Agents, Female

administration and dosage

Scanning electron microscopy and histopathological study of the effect of estriol on the endometrium of women using long acting injectable contraceptives with irregular uterine bleeding.
Ollo, Malunond Ali A.; Aboul Enien, Wafaa M.; Rizk, Ahmed Abdel Aziz M.; Abdel Hady, Mona; Abdel Sattar, Helmy H.
Alexandria University - Faculty of Medicine - Department of Obstetrics and Gynecology
Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 35-46 (25 ref.)
Keywords: Injections, Intramuscular-adverse effects; Estrial; Endometrium-pathology; Endometrium-ultrastructure; Microscopy, Electron, Scanning; Uterine Hemorrhage
Abstract: Hormonal contraceptives are female sex steroids, synthetic estrogen and synthetic progesterone [progesterin], or progesterin only. They can be administered in the form of oral contraceptives "OC", implants, and injectables. A large part of the modern medical research has focused on studying the effect of different forms of the hormonal contraception on the human endometrium whether by the conventional dilatation and curettage or by outpatient pipelle to study the endometrial histopathological changes either by light microscope or scanning electron microscope; and to correlate the findings detected by both modalities, in order to develop an effective method for diagnosis and treatment of different forms of endometrial pathology. The aim of the present study was to evaluate the effect of estrogen treatment on the endometrium of women using postgestational injectable contraceptive [Depo-provera] [R] and complaining of irregular uterine bleeding using: Clinical assessment, transvaginal ultrasound and studying endometrial samples by: The ordinary light microscope and the scanning electron microscope. In this study 30 women using depo provera as a contraceptive method and all of them complaining of irregular uterine bleeding were randomly categorized into 2 groups; group A included 15 cases who received estriol for 3 months, and group B included 15 cases who received Diosmine for the same period. Both groups were subjected to endometrial sampling by an out patient pipelle before and after treatments then the endometrial tissues were examined by the ordinary light microscope and the scanning electron microscope, results were then tabulated and statistically analyzed using the standard statistical tests. Microscopic examination of the endometrial biopsies from all women receiving depot medroxyprogesterone acetate revealed variable degrees of endometrial atrophy. The glandular architecture was cystic in cases and budding in the others. The glands were lined by mitotically inactive bland-looking cuboidal or flattened cells with rare pseudostratification. The glands were embedded in a mitotically inactive spindled stroma that exhibited varying degrees of collagenation. The ratio of glands to stroma was near one with predominant stroma in many foci. Microscopic examination of the endometrial biopsies of the 15 patients that received Diosmine for 3 months didn't reveal any proliferative change in 12 of them and only weak proliferative changes were noted in 3 of them. All atrophic endometria examined with the SEM revealed inconsistency in cell size and shape, cellular loss and separation, infrequency of ciliated cells and absence of uterodomes. Epithelial surface was usually flattened, with cells often displaying raised cell borders; Microvillous cells were thinly populated with very low, blebbed microvilli. A few to moderate number of ciliated cells were observed. Pitted cells were observed in 2 of the specimens that were treated with Diosmine. Number of injections and time lapse since the last injection had a role in the endometrial changes but age, gravidity and parity had no role. Depotmedroxyprogesterone acetate [DMPA] is one of the most effective hormonal contraception methods used by women in reproductive age to prevent pregnancy. Discontinuation of DMPA is mainly due to menstrual irregularities including unpredictable bleeding or spotting; this bleeding is mainly due to endometrial atrophy. Estriol is considered the friendly estrogen and can be used in treatment of vaginal bleeding during DMPA use by changing the endometrium from atrophic to proliferative so it causes building up of a new endometrium without evident side effects Endometriutrin either under effect of DMPA or estriol is easy to be studied by combined scanning electron microscopy and ordinary light microscopy after endometrial sampling by outpatient pipelle.
Corneal Wavefront Aberration

Higher-order aberrations in myopic eyes.
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Shahid Beheshti University of Medical Sciences - Labbafinejad Medical Center
Keywords: Aberrometry; Corneal Topography; Myopia; Astigmatism
Abstract: To evaluate the correlation between refractive error and higher-order aberrations [HOAs] in patients with myopic astigmatism. HOAs were measured using the Zywave II aberrometer over a 6 mm pupil. Correlations between HOAs and myopia, astigmatism, and age were analyzed. One hundred and twenty-six eyes of 63 subjects with mean age of 26.4 +/- 5.9 years were studied. Mean spherical equivalent refractive error and refractive astigmatism were -4.94 +/- 1.63 D and 0.96 +/- 1.06 D, respectively. The most common higher-order aberration was primary horizontal trefoil with mean value of 0.069 +/- 0.152 micro m followed by spherical aberration [-0.064 +/- 0.130 micro m] and primary vertical coma [-0.038 +/- 0.148 micro m]. As the order of aberration increased from third to fifth, its contribution to total HOA decreased: 53.9% for third order, 31.9% for fourth order, and 14.2% for fifth order aberrations. Significant correlations were observed between spherical equivalent refractive error and primary horizontal coma [R=0.231, P=0.022], and root mean square [RMS] of spherical aberration [R=0.213, P=0.031]; between astigmatism and RMS of total HOA [R=0.251, P=0.032], RMS of fourth order aberration [R=0.35, P<0.001], and primary horizontal coma [R=0.314, P=0.004]. Spherical aberration [R=0.214, P=0.034] and secondary vertical coma [R=0.203, P=0.031] significantly increased with age. Primary horizontal trefoil, spherical aberration and primary vertical coma are the predominant higher-order aberrations in eyes with myopic astigmatism.

Coronary Disease

Effect of postconditioning with adenosine on myocardial levels of mitogen activated protein kinase p 38 and serum levels of soluble fas-ligand and cardiac enzymes in rats subjected to intermittent coronary ischemia.
Korish, Aida A.; Mohamed, Adham R.; Suliman, Howayda S.
 Alexandria University - Faculty of Medicine - Department of Physiology
Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 135-140 (41 ref.)
Keywords: Ischemia; p38 Mitogen-Activated Protein Kinases-blood; Caspase 3; Antigens, CD29-blood; Creatine Kinase-blood; Lactate Dehydrogenases-blood; Reperfusion Injury; Adenosine; Rats
Abstract: Several research works have been done on the last two decades to limit the damaging effect of ischemic episodes of the heart. Brief cycles of coronary artery reperfusion alternating with re-occlusion applied during the first few minutes of reperfusion, reduce irreversible post ischemic injury vice infarct size, endothelial dysfunctions, apoptosis and was termed post conditioning [postC]. It was reported that administration of some potent compounds at the start of reperfusion could protect the heart against injury and one of these is adenosine. The present study was performed to assess the effect of postC with adenosine on the degree of apoptosis among rats subjected to intermittent coronary ischemia. The present study was conducted on 30 male albino rats that were divided into 3 groups [n10]--Group 1 consisted of normal healthy rats served as control group and they were sham operated. Group2 consisted of rats that undergone coronary ischemia/reperfusion [PR] by30 minutes occlusion of left anterior descending [LAD] artery. Group3 consisted of rats that received adenosine in a dose 200 pg per minute by i.v infusion for 15 minutes after induction of ischemia. Then, postC procedure was done by 3 cycles of 30 seconds reperfusion and 30 seconds re-occlusion of LAD artery that started immediately after the initial reperfusion. The following parameters were estimated in the rats of all groups: myocardial levels of both mitogen activated protein kinase p.38 [MAP kinase p38] and caspase 3 as well as the serum levels of lactate dehydrogenase [LDH], creatine kinase [CK] and soluble Fas-ligand [sFas-L]. The Findings of the present study revealed that exposure of the myocardium to 30 minutes of ischemia followed by 3 hours of reperfusion was associated with increased levels of the markers of myocardial necrosis vice LDH and CK. In addition apoptosis was stimulated as evidenced by increased serum soluble Fas-L and increased myocardial tissue levels of Caspase-3 and the death kinase MAP kinase P38. Treatment of rats in group 3 with adenosine and postC was associated with decreased LDH and CK levels Furthermore, the apoptotic cell loss was also attenuated as evidenced by decreased myocardial caspase-3 and MAP kinase p38 in the treated group. So, postC was reported to delay the wash out of endogenous adenosine and administration of exogenous adenosine was thought to cause myocardial protection by preservation of ATP, improved nucleotide repletion on perfusion, stimulation of glycolysis and limiting myocardial oxygen demand. It was concluded that adenosine and postC technique could be used as an important clinical therapeutic option to attenuate myocardial apoptosis which could decrease the subsequent myocardial dysfunction and heart failure. But further preclinical and clinical studies on human patients are still needed to test this therapeutic approach.
Coronary Stenosis

diagnosis

Non-invasive assessment of coronary artery stenosis with estimation of myocardial wall stress.
Moladoust, Hassan; Mokhtari Dizaji, Manihe; Haghighi, Zahra Ojaghi; Noohi, Fereidoon
Tarbiat Modares University - Department of Medical Physics
Keywords: Echocardiography; Myocardium; Stress, Mechanical; Diastole; Heart Ventrices
Abstract: More diagnostic techniques require a better understanding of the forces and stresses developed in the wall of the left ventricle. The aim of this study was to differentiate significant coronary artery disease [CAD] patients using a non-invasive quantification of myocardial wall stress in the diastolic phase. Sixty male subjects with sinus rhythm [30 patients with significant and 30 with moderate left anterior descending coronary artery stenosis in the proximal portion] as well as 35 healthy subjects as the control group were recruited into the present study. By two-dimensional, pulsed wave, and tissue Doppler echocardiography, the average end-diastolic wall stress was calculated at the left ventricle anterior and interventricular septum wall segments using regional wall thickness, meridional and circumferential radii, and non-invasive left ventricular end-diastolic pressure. A comparison of the calculated end-diastolic myocardial wall stress between the patients with significant and moderate coronary stenosis on the one hand and the healthy subjects on the other showed statistically significant differences in the anterior and septum wall segments [p value < 0.05]. The patients with significant left anterior descending coronary artery stenosis had higher end-diastolic myocardial wall stress than did those with moderate stenosis and the healthy group in all the anterior and septum wall segments. It is concluded that non-invasive end-diastolic myocardial wall stress in coronary artery disease patients is an important index in evaluating myocardial performance.

Coronary Vessel Anomalies

diagnosis

Solitary coronary artery nourishing the entire heart.
Yaymaci, Bengi; Ugurlucan, Murat; Basaran, Murat; Selimoglu, Ozer; Kocailik, Ali; Akyildiz, Senay; Coskun, Orhan; Us, Melih
Goztepe Safak Hospital - Cardiovascular Surgery Clinic
Annals of Saudi Medicine 2010; 30 (1): 81-83 (14 ref.)
Keywords: Coronary Angiography; Coronary Vessel Anomalies-epidemiology
Abstract: Coronary artery anomalies are being more frequently diagnosed these days both because increasing numbers of patients are undergoing diagnostic studies and because advanced radiographic imaging methods are now commonly available. An isolated single coronary artery giving rise to the main coronary branches is a rare congenital anomaly. In this report we present a patient with a solitary coronary ostium, with both the left and right coronary artery systems arising from it, and then following their usual courses. This case was diagnosed incidentally during conventional angiography.

Cyclosporine

toxicity

Mansour, Magda A.; El Odemi, Mahmoud H.
Menoufiya University - Faculty of Medicine - Department of Histology
Keywords: Kidney-pathology; Immunohistochemistry; Caspase 3; Protective Agents; Thiazolidinediones-therapeutic use; Kidney Function Tests; Rats
Abstract: Cyclosporine A [CsA] is the first choice immuno-suppressant used for prevention of allograft rejection. However CsA therapy is associated with nephrotoxicity. Rosiglitazone [RGZ] is used as anti-diabetic drug. It has anti-inflammatory and anti-fibrotic effect in non diabetic renal diseases. Of this work was to investigate whether the renal dysfunction and the histological changes induced by CsA in rats could be modified by concomitant administration of RGZ. Forty adult male albino rats were classified into 4 equal groups; GI served as control, received saline orally daily. G II received olive oil orally daily [vehicle for C5A]. G III was given CsA orally [15 mg/kg/day]. G IV was given RGZ
orally [3mg/kg/day] and CsA as in Gill. The period of the study was 28 days. The body weight [B.W] and the systolic blood pressure [SBP] were recorded for each rat. Urine creatinine, blood urea nitrogen [BUN], serum creatinine [SC] and creatinine clearance [CCI] were calculated. Rats were sacrificed and both kidneys were removed; one was processed for detection of malondialdehyde [MDA] and the other was processed to prepare paraffin blocks. Sections were stained with HandE, Masson’s Trichome and PAS stains. Other sections were processed for immunohistochemical demonstration of caspase-3. Revealed a significant increase in SBS, BUN, SC and tissue MDA and significant decrease in BW and CCL of CsA-treated rats [G III]. Histological examination revealed tubular cell atrophy, glomerulosclerosis, focal interstitial fibrosis, inflammatory cell reaction, vascular congestion and arteriolar hyalnosis. Also, strong PAS reaction and immune expression of caspase-3 were detected. Administration of RGZ with CsA [GIV] resulted in significant improvement of renal functions and morphology compared to CsA-treated group. That RGZ has a protective effect in nephrotoxicity induced by CsA administration. It is postulated therefore that PPAR-y ligands were important for prevention of CsA nephrotoxicity. However, their usefulness in human need to be verified.

**Death, Sudden, Cardiac**

**Assessment of atherosclerotic plaque vulnerability of coronary arteries in cases of sudden cardiac death.**

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National University of Science and Technology [NUST] - Army Medical College Rawalpindi
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 21-25 (23 ref.)

**Keywords:** Atherosclerosis; Coronary Artery Disease; Case-Control Studies; Incidence; Early Diagnosis; Autopsy

**Abstract:** To study the plaque vulnerability in coronary arteries taken from autopsy specimens, of individuals dying of ischemic heart disease in our setup and to compare it with atheroma of those who died of non-cardiac causes. Case control study. Study was carried out in the department of Pathology [Histopathology], Army Medical College, Rawalpindi and National University of Sciences and Technology [NUST], from June 2008 to June 2009. Sixty coronary arteries having atherosclerosis, from autopsies of patients who died of sudden cardiac death were divided into case and control groups. Case group included thirty coronary arteries having atherosclerosis from autopsies of patients of whose death was attributable to Ischemic Heart Disease [IHD]. Control group included thirty coronary arteries where atherosclerotic changes were found by chance [death not attributable to ischemic heart disease]. Plaques were assessed for fibrous cap thickness, foam cells; mean percentage of inflammatory cells on Haemotoxylin and Eosin [H and E] stained slides whereas immunohistochemical [IHC] markers for T-Cells were done by IHC stain method. In present study, foam cells are significantly more in study group than in control group [P=0.007]. Fibrous cap thickness fulfilling the criteria of vulnerable plaque was more in study group as compared to control group [P<0.001]. The present study demonstrated that there was insignificant difference [P=0.152], in the mean percentage of inflammatory cells in case group and control group. An overall significant association was found between vulnerable plaque and death due to ischemic heart disease [P<0.001]. Patients dying of ischemic heart disease have more vulnerable plaque in their coronary arteries as compared to those dying from non ischemic cause. Although this is an autopsy study but the significance of in this study can be very important to guide cardiologists to identify patients at high risk of acute coronary syndrome and use new diagnostic modalities like intravascular ultrasonography and therapeutic strategies like genomic and proteomic techniques. This will help the early detection and treatment of such cases and may ultimately reduce the incidence of sudden cardiac death.

**Delivery, Obstetric**

**psychology**

A study on preference and practices of women regarding place of delivery.
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Directorate of Health Services
EMHJ - Eastern Mediterranean Health Journal 2010; 16 (8): 874-878 (16 ref.)

**Keywords:** Cross-Sectional Studies; Questionnaires; Home Childbirth; Hospitals

**Abstract:** This was a cross-sectional study in Basra, and involved 353 women who had recently given birth drawn from health care institutions. The main objective was to determine the factors that helped determine the women's choice of place of delivery: hospital or home. Only 16.1% delivered at home, while 83.9% delivered in hospital. The main reasons for choosing hospital delivery were safety and security [96.6% of the women], better hygiene [66.6%] and because of medical advice [63.2%]. The main reasons for the choice of home delivery were social support and privacy [98.2%]. The women were consistent in their choice of delivery place across different pregnancies [previous, present and future].
Dental Health Services

Factors affecting utilization of dental health services and satisfaction among adolescent females in Riyadh City.
Al Hussyeen, Al Johara A.
King Saud University - College of Dentistry - Department of Pediatric Dentistry and Orthodontics

Keywords: Consumer Satisfaction; Dental Facilities; Dental Clinics; Fees, Dental

Abstract: This study was conducted to determine factors affecting utilization of dental health services among intermediate female school students in Riyadh. In addition to assessing their satisfaction with the dental care received during the last dental visit. Self-administered questionnaires were distributed among students attending eight public and four private schools. These schools were selected randomly to represent the four different administrative zones in Riyadh. Of 600 questionnaires distributed, 531 were complete and suitable for analysis. Nearly three quarters of the students visited the dentist more than once during the last 2 years. About 75% had their treatment in private dental clinics and 63% made their visits for routine treatment. The quality of dental care was found to be the most encouraging factor for utilization of dental services, whereas, far geographic location of the dental clinics was the most discouraging factor. For those who received treatment in the government clinics, the most discouraging factor was post operative complications [P < 0.0001], while the most encouraging factor was the availability of friendly staff [P < 0.0001]. The high cost of dental care was the most discouraging factor for utilizing the dental services for those who visited private clinics [P < 0.0001], while the high quality of dental care was the most encouraging factor [P < 0.009]. Students who made their visits because of pain highly considered modern clinics and those recommended by friends as highly encouraging factors [P < 0.002], while they considered the high cost of dental care as discouraging factor for using.

Dental Implants, Single-Tooth

Comparative study between two different flap designs on peri-implant interproximal crestal bone loss around a single implant in the pre-loading stage.
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Suez Canal University - Faculty of Dentistry - Department of Oral and Maxillofacial Surgery
Suez Canal University Medical Journal 2009; 12 (1): 157-162 (15 ref.)

Keywords: Surgical Flaps-classification; Comparative Study

Abstract: Today, one of the most challenging aspects of esthetic implant modalities is to obtain a predictable peri-implant papilla in the esthetic zone starting with the facts about the morphology of periimplant tissues, to various parameters influencing papilla reconstruction around implants. This prospective study investigates the interproximal alveolar crestal bone loss occurring after placement of mandibular single posterior implant using two different flap designs. Ten patients were included in this study [6 females and 4 males] with missing posterior mandibular teeth, their age ranged between twenty to forty years. The designed flap was performed with a conventional wide type flap on the distal side of the implant and records obtained from this side were referred to as group I, while the mesial side of the same implant was performed with a limited or a papillary preserved flap and records obtained from this side were referred to as group II. Each patient was evaluated clinically and radiographically at immediate, 1.5, 3 and 6 months post-operatively. There was high rate of crestal bone loss in group one with widely mobilized flap compared with that in group two of limited flap design through out the follow up periods. The use of a limited flap design [papillary preserved flap] for single-tooth implants is indicated to avoid possible loss of interdental papillae and to minimize interproximal crestal bone loss with subsequent implant exposure. During application of the conventional flap, it is better to insert the implant 1mm beneath the cortex by about to compensate the amount of bone loss during healing stage.

Dental Polishing

methods

The effect of mechanical and chemical polishing techniques on the surface roughness of denture base acrylic resins.
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King Saud University - College of Dentistry - Department of Prosthetic Dental Sciences
SDJ - Saudi Dental Journal [The] 2010; 22 (1): 13-17 (11 ref.)

Keywords: Dental Bases; Dentures; Surface Properties; Acrylic Resins; Analysis of Variance

Abstract: Smooth polished surface of dental prostheses is important to prevent bacterial colonization and plaque accumulation. The acrylic base of prostodontic appliances needs to be adjusted by grinding which often alters the
Factors influencing the type of prosthetic restoration for partially dentate adults.

Khan, Asif Ullah; Ghani, Fazal

Khyber College of Dentistry - Department of Prosthodontics

JPMI - Journal of Postgraduate Medical Institute 2010; 24 (1): 13-21 (36 ref.)

Keywords: Denture, Partial; Dental Prosthesis Design

Abstract: In developed countries, patients' factors and aesthetic concerns have predominantly influenced prosthodontic treatments. The objective of this investigation was to see if such factors in local partially dentate patients influenced the clinicians' decision regarding the prostheses planned. This was a descriptive study carried out in Khyber College of Dentistry, Peshawar from March to October 2007. Using a structured data collection-sheet, patient's data including gender, age, socio-economic status, educational level, oral-hygiene status, main concern of patients for consultation and the number, location and type of saddles in the jaws were all recorded. The type of prosthodontic service planned for each patient was also recorded. One investigator collected the required data from each of the 206 partially dentate patients by the method of direct interviewing. Acrylic removable dental prostheses [RDPs] were more frequently provided than fixed dental prostheses [FDPs]. No precision-retained or implant-supported prostheses were planned. Irrespective of the type of prosthesis, the restoration of chewing function was the major concern of patients for consultation. Age, socioeconomic status, educational level and type of saddle in the maxilla influenced patients' treatment with RDPs. In comparison, better socioeconomic status and educational level were the reasons in case of planned FDPs. The reason for the planned FDPs in the maxilla was esthetics as compared to improvement in chewing function in case of the mandible. Acrylic RDPs were the most frequently planned prostheses. Patients; socioeconomic status and educational level the type and location of saddle influenced the type of prosthesis planned for patients.

Dental Prosthesis

Dental Pulp Cavity

Comparative evaluation of sealing ability of three Root Canal sealers with and without smear layer removal.

Abdel Gawad, Reem A.M.; Aboul Enein, Naguib M.

Suez Canal University - Faculty of Dentistry - Department of Endodontics

Suez Canal University Medical Journal 2009; 12 (1): 47-52 (21 ref.)

Keywords: Root Canal Filling Materials; Comparative Study; Zinc Oxide-Eugenol Cement

Abstract: Successful root canal treatment requires a complete obturation of the root canal system, the study of the sealing ability of different sealers especially the newly introduced ones will be of value for proper root canal treatment. Moreover, the sealing quality of these sealers in the presence or absence of smear layer may be of additional benefit. This study was designed to evaluate the sealing ability of three root canal sealers namely EndoFill, GuttaFlow, Endo REZ , with removal of the smear layer or not. A total number of 120 human single rooted teeth were collected for the study. Their root canals were cleaned and shaped using crown down technique using Profile .04 taper rotary files, samples were divided into two equal main groups according to the irrigating solution used as final rinse. Samples of G1 had the smear layer preserved due to irrigation with 5.25% NaOCl solution. Samples of G2 had the smear layer removed due to irrigation with 17% EDTA solution. Each main group subdivided into four equal subgroups according to the sealer used for obturation. Samples of subgroup A obturated with Zinc Oxide and eugenol based sealer [EndoFill]. Samples of subgroup B obturated with Silicon based sealer [GuttaFlow]. Samples of subgroup C obturated with resin based sealer [Endo REZ] and Endo REZ master cone, samples of subgroup D obturated with Endo REZ and Gutta-Percha master cone. The stereomicroscope [magnification x20] was used to determine dye penetration depth in millimeter. The measurements showed that Zinc Oxide and eugenol based sealer [EndoFill] had the highest leakage values between the other sealers in both conditions. Silicon based sealer [GuttaFlow] had the least leakage values which was significant from leakage values of [EndoFill] and [Endo REZ with gutta percha master point] but was not significant from [Endo REZ and Endo REZ master cone]. The smear layer removal using 17% EDTA solution did not significantly improve the sealing ability of the tested sealers.

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Dermatitis, Atopic

The effects of vitamins e and d supplementation on erythrocyte superoxide dismutase and catalase in atopic dermatitis.  
Tehran University of Medical Sciences - School of Public Health - Department of Nutrition and Biochemistry  
Keywords: Tocopherols; Calcifediol; Superoxide Dismutase; Catalase; Dietary Supplements; Double-Blind Method  
Abstract: Atopic dermatitis is a public health problem worldwide. Increment of reactive oxygen species [ROS] production may be one of the contributing factors of tissue damage in atopic dermatitis. The present study was designed to determine the effect of vitamins E and/or D on erythrocyte superoxide dismutase and catalase activities in patients with atopic dermatitis. In a randomized, double blind, placebo controlled clinical trial 45 atopic dermatitis patients were divided into four groups. Each group received one of the following supplements for 60 days: group A [n = 11] vitamins E and D placebos; group B [n= 12] 1600 international unit [IU] vitamin D3 plus vitamin E placebo; group C [n=11] 600 IU synthetic all -rac-a tocopherol plus vitamin D placebo; group D [n] 1600 IU vitamin D3 plus 600 IU synthetic all -rac-a tocopherol. Erythrocyte superoxide dismutase [SOD] and catalase activities, serum 25 [OH] D, plasma a-tocopherol were determined. The data were analyzed by analysis of variance [ANOVA] and paired /test. After 60 days vitamin D and E supplementation, erythrocyte SOD activities increased in groups B, C and D [P= 0.002, P= 0.016 and P= 0.015, respectively]. Erythrocyte catalase activities increased in groups B and D [P= 0.026 and.P= 0.004, respectively]. The increment of erythroc yte catalase activity was not significant in group C. There was a positive significant correlation between SOD activity and serum 25 [OH] D [r= 0.378, P= 0.01]. It is concluded that vitamin D is as potent as vitamin E in increasing the activities of erythrocyte SOD and catalase in atopic dermatitis patients.

Dexmedetomidine

therapeutic use

Use of dexmedetomidine as the main anesthetic agent in patients with laryngo-tracheomalacia. A case report.  
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Jordan University - Jordan University Hospital - Department of Anesthesia  
Middle East Journal of Anesthesiology 2010; 20 (4): 603-606 (17 ref.)  
Keywords: Tracheomalacia-surgery; Anesthetics; Adrenergic alpha-Agonists; Treatment Outcome  
Abstract: The successful use of Dexmedetomidine as the main anesthetic agent for three pediatric patients with tracheomalacia presenting for different kinds of urgent operations is described. Patients were kept spontaneously breathing without intubation during their whole procedures. Surgical conditions were adequate, and hemodynamic and respiratory profiles were within baseline limits.

Dextromethorphan

Preoperative oral dextromethorphan does not reduce pain or morphine consumption after open cholecsytectomy.  
Mahmoodzadeh, Hossein; Movafegh, Ali; Beigi, Nooshin Moosavi  
Tehran University of Medical Sciences - Ali Shariati Hospital - Anesthesiology and Critical Care  
Middle East Journal of Anesthesiology 2010; 20 (4): 559-563 (19 ref.)  
Keywords: Cholecystectomy; Pain Measurement; Morphine; Pain, Postoperative  
Abstract: Dextromethorphan [DM], the D-isomer of the codeine analogue levorphanol, is a weak, noncompetitive N-Methyl-D-Aspartate [NMDA] receptor antagonist. It has been suggested that NMDA receptor antagonists induce preemptive analgesia when administrated before tissue injury occurs, thus decreasing the subsequent sensation of pain. The study was conducted in the Dr Ali Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran. In this seventy two patients scheduled for elective cholecsytectomy between February 2005 and December 2006 were randomized into three equal groups to receive as premedication either oral dextromethorphan 45 mg [Group D545 = 24], dextromethorphan 90 mg [Group D 90 = 24] or placebo [Group C, n = 24]. 120 min before surgery. A visual analogue scale [VAS] for pain of each patient measured at arrival in the ward and 6 and 24 hours after surgery, was recorded. The demographic characteristics of patients, ASA physical status class, duration of surgery, and the basal VAS pain score were similar in the two groups. There was no significant difference in the mean of the VAS pain scores measured over time or morphine consumption between three groups. Dextromethorphan, 45 and 90 mg orally administrated 2 h before surgery had no effect on postoperative morphine requirement and pain intensity.
**Diabetes Mellitus**

**prevention and control**

**Effect of glycemic control on diabetic dyslipidemia.**
Ahmed, Waqar; Arshad, Abdul Rehman
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Military Hospital

**PAFMJ - Pakistan Armed Forces Medical Journal** 2010; 60 (1): 42-44 (11 ref.)

**Keywords:** Blood Glucose; Dyslipidemias; Cross-Sectional Studies; Lipids-blood; Triglycerides-blood; Diabetes Mellitus, Type 2-prevention and control

**Abstract:** To determine whether good glycemic control has an effect on lipid profile in diabetics. Cross-sectional study. Department of Medicine, Combined Military Hospital Lahore; June to December 2007. After taking relevant history and physical examination, serum urea, creatinine, thyroid stimulating hormone, bilirubin, alanine transaminase and HbA1c were measured. Blood samples for determination of fasting plasma glucose, serum total cholesterol, triglycerides, HDL and LDL levels were collected in a fasting state. Patients were divided into two groups based on HbA1c levels. They were compared using SPSS 13. 42 patients had good glycemic control and 58 had poor control. The two groups were age and weight matched. 43 patients had abnormal lipid profiles. Serum total cholesterol and triglycerides were lower and HDL levels higher in the good control group but serum LDL levels were equal. Good glycemic control improves lipid profile in patients with type 2 diabetes mellitus.

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**Diabetes Mellitus, Type 1**

**complications**

**Clinical profile and medical care of type 1 diabetics in Kuwait.**
Al Shamali, Nawal F.; Al Qallaf, Khalida I.; Jaafar, Haifaa Y.; El Shazly, Medhat K.
Ministry of Health - Department of Medical Licensing

**Bulletin of Alexandria Faculty of Medicine** 2009; 45 (1): 157-166 (39 ref.)

**Keywords:** Diabetic Nephropathies; Diabetic Neuropathies; Diabetic Retinopathy; Self Care; Health Care Facilities, Manpower, and Services

**Abstract:** Although the multifactorial nature of type 1 diabetes mellitus is still not resolved yet especially the interaction between the genetic and environmental roles yet, the complications of the disease is well established. The current study was formulated to describe the epidemiological features of type 1 diabetics and reveal the common complications of type 1 diabetics as well as reveal the extent of achieving the intended medical care targets for diabetics. The study design is a cross sectional descriptive one whereas 63 type 1 diabetics were randomly selected from 5 diabetes health centers that represent the five health regions of Kuwait. The results of the study showed that the mean age of the studied population was 30.27 +/- 10.45 years. The majority [63.5] were women. Only 35.4% could achieve the targeted fasting blood glucose level while just 18% could achieve the targeted HbA1c level. Also, 28.6% could demonstrate a "good" body mass index. The majority were adherent to regular use of drugs [82.5%] and regularly visiting the diabetes center [76.2%]. Only 17.3% were practicing moderate physical activity while 27% were self monitoring their blood glucose and 61.9% were testing blood for glucose at home. Those suffering from cardiovascular complications constituted 20.6% of the sample and the same percent suffered from nephropathy while 28.6% had peripheral polyneuropathy. Retinopathy was detected among 14.3% while vascular lower limb complications were revealed among 30.9%. In general, the available medical resources and facilities need to be more and properly utilized. More effort is needed to achieve the targeted health care levels.

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**Diabetes Mellitus, Type 2**

**Study of single nucleotide polymorphism rs13266634 in zinc transporter solute carrier family 30, member 8 [SLC30AS] gene in type 2 diabetes patients resident in Ismailia city.**
EL Serafi, Taher L.; Abdel Moneim, Samir M.; Sabek, Nagwan A.; Hosny, Marwa M.
Suez Canal University - Faculty of Medicine - Department of Medical Biochemistry

**Suez Canal University Medical Journal** 2009; 12 (1): 173-180 (29 ref.)

**Keywords:** Polymorphism, Single Nucleotide; Zinc; Carrier Proteins; Cation Transport Proteins; Genotype

**Abstract:** Several genome-wide association studies identified a strong association of SLC30A8 with type 2 diabetes in individuals of European ancestry. The effect of the association of Rs 13266634 with type 2 diabetes or related glycemic traits has not been fully extended to non-European populations, and a comprehensive examination of common variants in the gene has not yet been carried out in our population. The aim of the present study was to
investigate the association among the polymorphisms of SLC30A8, and the risk of T2DM and to determine the presence and frequency of single nucleotide polymorphism [SNP] rs13266634 in SLC30A8 gene in T2D patients resident in Ismailia city. SLC30A8 SNP was genotyped using real time PCR allelic discrimination TaqMan assay. A case control study was conducted in 68 cases of type 2 diabetes [51 women and 17 men] and 29 control subjects [13 women and 16 men] from out-patients diabetic clinic of Suez Canal hospital and age and gender were matched. The SNP rs13266634 was evaluated in SLC30A8 C > T genotype. The genotypes of control subjects were 27[93%, C/T], 1 normal homozygous [3.5% C/C] and 1 mutant homozygous [3.5%, T/T]. In diabetic subjects, there were 58 subjects carriers of heterozygous [C/T, 85%], 6 normal homozygots [C/C, 9%] and 4 mutant homozygous [T/T, 6%]. There was significant difference in fasting blood glucose levels in control subjects compared to diabetic subjects' P<0.05, and between control carriers of[CT] genotype compared to genotype [CT] diabetic subjects' P<0.05, also there was significant associations between polymorphisms and the risk of type 2 diabetes in women or men, as there were significant associations in lipids profile [serum high density lipoprotein between control carrier CT genotype compared to diabetic subjects' carrier CT P<0.005, also we found significant difference in body mass index [BMI] between control and diabetic subjects' P<0.05. In addition, none of the SLC30A8 polymorphisms was significantly associated with the age and sex in the control and diabetic subjects. Also, we found higher non significant difference in triglyceride levels, total cholesterol and LDL cholesterol levels in diabetic subjects carrying the C/T genotype comparing to control subjects carrying the C/T genotype. In summary, the data in this study support substantial associations between the common SLC30A8 polymorphisms in gene and the type of risk of type 2 diabetes. Our results may provide evidence that SLC30A8 is a susceptible locus for type 2 diabetes in our population, and its variant can influence insulin secretion.

Study of the short-term impact of intensive glycemic control on nerve conduction type 2 diabetic patients.

Mahmoud, Doaa Hanafy; Megallaa, Magdy Helmy
Alexandria University - Department of Neurology

Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 119-124 (42 ref.)

Keywords: Neural Conduction-physiology; Hyperglycemia; Polyneuropathies

Abstract: Diabetic polyneuropathy is one of the serious chronic complications of diabetes mellitus resulting from the interplay between metabolic factors and structural changes. The underlying metabolic factors includes include activation of the polyol pathway, diminished sodium potassium [Na-K] ATPase activation and microangiopathies of the vasa nervosa supplying the peripheral nerves. Intensive insulin therapy can reverse rapid reversal of the Na-KATPase activity. The objective of this study was to assess any possible short-term irhaptic of intensive glycemic control on the nerve conduction in a sample of type 2 diabetic patients having polyneuropathy. This study was conducted on 60 type 2 diabetic patients having diabetic polyneuropathy attending the Main University Hospital Out-patients Clinics [Diabetes Clinic and Neurology Clinic]. All the patients were submitted to full history taking and complete general and neurological examination. Laboratory investigations mi cu died fasting and postprandial plasma glucose, glycated hemoglobin [HbAlc], urea, creatinine, ALT and AST. All other causes of peripheral neuropathy were excluded from the study. Nerve conduction study of the sural, peroneal and posterior tibial nerves in both lower limbs as well as median and ulnar nerves in both upper limbs was done using standardized techniques before and after intensive insulin therapy. One month after the start of insulin therapy, there was a significant improvement in F-wave latencies of the median, ulnar, tibial and common peroneal nerves. The distal latencies of the sensory nerve action potential [SNAP] and compound muscle action potential response also significantly improved. The nerve conduction velocities were significantly faster after intensive insulin therapy. Amplitude of motor and sensory responses did not change significantly. Hyperglycemia can alter the nerve function due to slowing of nerve conduction presumably caused by some metabolic factors such as diminished Na-K ATPase activity and altered polyol pathway. Fortunately, some of these changes can be reversed by implementing intensive glycemic control, resulting in significant improvement in nerve conduction velocities and F-wave latencies even after a short time of properly-designed intensive insulin therapy.

complications

Subclinical central neuropathy in thype 2 diabetes mellitus.

Imam, Mohamed; Shehata, Osama H.
Alexandria University - Faculty of Medicine - Department of Physical Medicine

Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 65-73 (37 ref.)

Keywords: Diabetic Neuropathies; Evoked Potential; Somatosensory; Evoked Potential; Motor; Evoked Potential; Visual; Blood Glucose; Hemoglobin A, Glycosylated-blood; Cholesterol-blood; Triglycerides-blood; Creatinine-blood; Urea-blood

Abstract: Involvement of the peripheral and autonomic nervous systems is frequently encountered in diabetes mellitus [DM]. However, there is a paucity of data regarding central neuropathy in DM. To evaluate central nervous system neuropathic changes in patients with type 2 DM with and without peripheral neuropathy, the study included three groups; group 1: Fifteen patients with type 2 DM with clinical and electrophysiological findings of peripheral neuropathy, group 2: Fifteen patients with type 2 DM without any clinical or electrophysiological evidence of peripheral neuropathy and group 3: Fifteen healthy subjects as a control group. All groups were age and sex matched and subjected to physical examination, laboratory investigations including: Complete blood cell count, fasting plasma glucose, glycated hemoglobin [HbAlc], serum lipid profile, renalictions and other necessary tests, in addition to the electrophysiological study including: Somatosensory evoked potentials [SEP], motor evoked potentials [MEP], visual evoked potentials [VEP] and brainstem auditory evoked potentials [BAEP]. Group I had a statistically significant higher
mean values of fasting plasma glucose, HbA1c, urinary albumin excretion [UAE] and serum creatinine compared with group 2. Both diabetic groups had similar changes in VEP P100 latency and its amplitude, MEF central motor conduction time, amplitude percentage quotient and duration of the MEP, and BAEP wave II latency, with statistically significant differences compared to healthy controls. There was a statistically significant delay in all of the BAEP waves interpeak latency only in group 1. The other tested parameters of central neuropathy showed statistically significant differences between all studied groups. A statistically significant positive correlation was observed between some of the studied parameters of central neuropathy in diabetic patients and each of the patient age, duration of diabetes, HbA1c, serum total cholesterol, serum triglycerides and UAE. Central neuropathy in type 2 diabetics is not uncommon even in absence of peripheral neuropathy. It is related to the patient age, duration of diabetes, glycated hemoglobin value, dyslipidemia and diabetic nephropathy. The use of more than one modality of the electrophysiological tests [multimodal evoked potential studies] can buffer the fallacies of a single mode and is advisable in evaluating central neuropathy in patients with type 2 DM. Early diagnosis of central neuropathy is recommended to offer an early opportunity for a proper management.

epidemiology

Epidemiological, clinical, and biochemical profile of type 2 diabetes in Kuwait.
Jumah, Nadia A.; Al Hajeri, Shailtha S.; Al Al, Kholid A.; Ismaiel, Ali E.; Kamel, Mohamed I.
Ministry of Health - Shamyia Primary Health Care Center
Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 167-175 (27 ref.)
Keywords: Diabetes Complications; Diabetic Neuropathies; Diabetic Retinopathy; Diabetic Neuropathies; Self Care; Health Care Facilities, Manpower, and Services; Cholesterol-lood; Triglycerides-lood; Liver Function Tests-lood; Body Mass Index
Abstract: Type 2 diabetes mellitus is considered as one of the major public health problems in Kuwait. Many factors affect the standard of health care and achieving preset specific targets particularly patients' practice and utilization of health care facilities. The current study was formulated to describe the epidemiological features of type 2 diabetics and to reveal the common complications of type 2 diabetes as well as the extent of achieving the intended medical care targets. The study design is a cross sectional descriptive one whereas 64] type 2 diabetics were randomly selected from 5 diabetes health centers that represent the five health regions of Kuwait. The results of the study showed that the mean age of the studied population was 54.3 +/- 10.4 years, with almost equal proportions for males and females [49.9% and 50.1%]. Only 31.3% could achieve the targeted fasting blood glucose level while just 19% could achieve the targeted Hb[A1c] . level. Also, 14% could demonstrate a "good" body mass index. The majority were adherent to the standard of care but it was higher than the frequency detected in previous studies done worldwide. Only 17.3% were practicing moderate physical activity while 6.2% were self monitoring their blood glucose and 29.3% were testing blood for glucose at regular use of drugs [85.5%] and regularly visiting the diabetes center [80%].

genetics

Preliminary study on single nucleotide polymorphism [rs12255372] in transcription factor 7 like 2 [TCF7L2] gene in type 2 diabetes patients resident in Ismailia city.
El Serafi, Taher L.; Ismail, Ermad El Din F.; Tag El Din, Loaa A.; Ahmed, Nagwa M.
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Suez Canal University Medical Journal 2009; 12 (1): 95-100 (15 ref.)
Keywords: Polymorphism, Genetic; Gene Frequency; Polymorphism, Single Nucleotide; Body Mass Index; Cholesterol-blood; Triglycerides-blood
Abstract: To detect the allele frequency of SNP [rs 12255372] in Ismailia city. This study included 91 T2D patients [26 males and 65 females] and 47 control subjects [22 males and 25 females]. They were subjected to history taking [personal history, duration of the disease and family history], anthropometric measurements, laboratory investigations including: FBG, 2hPPBG and lipid profile and genotyping of the SNP rs [12255372] using RT-PCR. The study revealed that the frequency of the high risk allele [T] was 53.3% in the patients group and 47.7% in the control group with odds ratio 1.14 and the FBG level and 2h PPBG level was significantly higher in patients homozygous for the high risk allele [TT] than patients who were heterozygous for the high risk allele [GT]. The minor allele frequency [T] was higher in patients group than in control group but it was higher than the frequency detected in previous studies done worldwide. This high frequency of the [T] allele, if it is replicated in other areas in Egypt, we can say that this high frequency of the high risk allele [T] may be one of the factors that Egypt is one of the top ten countries regarding the prevalence of the T2D.
**Diabetic Angiopathies**

**etiology**

Macrovascular complications and their associated risk factors in type 2 diabetic patients in Sana'a city, Yemen.
Al Khawlani, A.; Atef, Z.A.; Al Ansi, A.
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University of Sana'a - Faculty of Medicine, Al Thawra Teaching Hospital - Department of Internal Medicine
EMHJ - Eastern Mediterranean Health Journal 2010; 16 (8): 851-858 (33 ref.)

**Keywords:** Risk Factors; Cross-Sectional Studies; Diabetic Angiopathies-epidemiology; Diabetes Mellitus, Type 2-complications; Lipids; Blood Glucose

**Abstract:** A cross-sectional survey in Sana'a city, Yemen, aimed to determine the prevalence of preventable macrovascular complications and their association with glycaemic control and other risk factors in patients with type 2 diabetes mellitus [DM]. Some features of macrovascular disease were found in 79 [25.4%] of the 311 patients: 17.8% had coronary heart disease, 9.1% had peripheral vascular disease and 5.8% had cerebrovascular disease. Significant positive associations were found between coronary heart disease and age, duration of DM, systolic blood pressure, diastolic blood pressure and insulin treatment. Peripheral vascular disease was associated with male sex, age, duration of DM and current tobacco smoking. Cerebrovascular disease was associated with systolic blood pressure, diastolic blood pressure and insulin treatment.

**Diabetic Foot**

Diabetic foot risk classification in a tertiary care teaching hospital of Peshawar.
Shabbier, Ghulam; Amin, Said; Khattak, Ishaq; Sadeeq ur Rehman
Khyber Teaching Hospital - Department of Medicine
JPMT - Journal of Postgraduate Medical Institute 2010; 24 (1): 22-26 (10 ref.)

**Keywords:** Clinical Audit; Risk Assessment; Hospitals, Teaching

**Abstract:** To find out diabetic foot risk classification in patients admitted with diabetes mellitus at a tertiary care teaching hospital. The hospital record of one hundred and twenty seven patients of diabetes mellitus, admitted to the medicine department, Khyber teaching hospital Peshawar from 1st October 2005 to 31st March 2006 were evaluated against the Royal College of Physicians, London; Clinical Guidelines for Type 2 diabetes: prevention and management of foot problems. Both male and female indoor patients above 15 years of age were included in the study. An audit of 127 diabetes mellitus patient revealed that 25 [19.68%] patients were having low current risk, 21 [16.53%] were classified as having risk foot, 6 [4.72%] were categorized as high risk patients, 16 [12.59%] were admitted with ulcerated foot and 5 [3.93%] were having diabetic foot emergency according to Royal College of Physicians, London; Clinical Guidelines for Type 2 diabetes: prevention and management of foot problems. The main reason for poor diabetic foot outcomes in the tertiary care teaching hospital is the absence of classification of majority of diabetic patients into different risk groups for the appropriate treatment. This lack of risk classification results in ensuing gaps in the management and an overall increase in morbidity.

**Diarrhea**

**epidemiology**

Prevalence and associated factors of persistent diarrhoea in Iranian children admitted to a paediatric hospital.
Kermani, N.A.; Jafari, F.; Mojarad, H.N.; Hoseinkhan, N.; Zali, M.R.
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**Keywords:** Prevalence; Prospective Studies; Diarrhea-microbiology; Escherichia coli

**Abstract:** To identify the frequency and associated factors of persistent diarrhoea in a paediatric hospital in Tehran, Islamic Republic of Iran, children admitted with acute diarrhoea were followed prospectively until resolution of the episode. Persistent diarrhoea developed in 19.6% of the 424 diarrhoea cases. Children with persistent diarrhoea were significantly younger than those with acute diarrhoea [15.3 versus 29.4 months]. Enteroaggregative Escherichia coli was the most prevalent pathogen in both groups, but otherwise the profile of symptoms and isolated organisms was similar in the 2 groups. History of dietary change prior to admission and use of antibiotics and anticholinergic drugs in the acute phase were significantly higher in the persistent than acute diarrhoea cases.
**Diastema**

Frequency and etiology of midline diastema in orthodontic patients reporting to armed forces institute of dentistry Rawalpindi.

Jan, Hameedullah; Naureen, Sadia; Anwar, Ayesha

Armed Forces Institute of Dentistry

**PAFMJ - Pakistan Armed Forces Medical Journal** 2010; 60 (1): 126-128 (16 ref.)

**Keywords:** Malocclusion; Sex Distribution; Prevalence

**Abstract:** To determine the frequency and etiology of maxillary midline diastema [MMD] in local settings. Descriptive study. The study was carried out on orthodontic patients reporting to Armed Forces Institute of Dentistry Institute of Dentistry [AFID] from 2001 to 2007 at the Department of Orthodontics, Armed Forces Institute of Dentistry Rawalpindi. A total of 1800 cases of malocclusions, were collected from orthodontic dept of AFID Rawalpindi, during research period. Sample purification resulted in a research sample of 1747 patients. The data of all patients was analysed as regards to age, gender, occlusal traits, and relevant disatema findings. The frequency of MMD turned out to be 12.59%. No single etiological factor was found responsible for MMD, however increased over jet was the most frequently [56.56%] occurring factor related to MMD, followed by high frenum attachment [33.03%] and finally deep bite, 31.6%. Maxillary midline diastema is a common entity associated with multifactorial etiology. Focusing on symptomatic treatment rather than addressing the cause oriented approach will lead to relapse of the already existing problem. Permanent retention should be considered in most cases.

**Diethylhexyl Phthalate**

**toxicity**


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Tanta University - Faculty of Medicine - Department of Histology


**Keywords:** Adrenal Cortex-ultrastructure; Microscopy, Electron; Protective Agents; Panax; Male

**Abstract:** Phthalates are widely spread environmental contaminants because of their use in plastics and other common consumer products. Di-[2-ethylhexyl] phthalate [DEHP] is the most abundant phthalate in the environment. Ginseng enhances adrenal gland function and improves physical performance, promotes vitality and increases resistance to stress, aging and oxidants. The purpose of the present study was to study the histological effect of DEHP and Panax ginseng on the adrenal cortex. Forty adult male albino rats were used and were divided into four main groups [10 animals each]; a control group, Panax ginseng treated group which received 3.6 mg/rat of Panax ginseng orally once daily for 4 weeks, DEHP treated group which received 2.85 mg/kg body weight of DEHP orally once daily for 4 weeks and the fourth group received a combination of daily ginseng and DEHP for 4 weeks. Specimens of adrenal cortex were processed for histological study by light and electron microscopes. In DEHP treated rats, the cells of the three cortical zones, showed apparent increase in the cytoplasmic vacuolation and irregular darkly stained nuclei. Ultrastructurally, degenerative changes were observed in the cortical cells especially in the zona fasciculata in the form of cytoplasmic vacuolation, mitochondrial degeneration and increased lipid droplets. When Panax ginseng was added most of the morphological changes were resolved to be more or less similar to the control group. DEHP had a toxic effect on adrenal cortex which could be resolved by concomitant administration of Panax ginseng. So, it is advised to give ginseng to those exposed to DEHP especially in industries.

**Dinoprost**

**therapeutic use**

Efficacy of intramyometrial prostaglandin in the management of primary postpartum hemorrhage due to uterine atony in the multipara after failure on conventional therapy.

Qayum, Mamuna; Nasreen, Khalida

POF Hospital Wah Cantt

**PAFMJ - Pakistan Armed Forces Medical Journal** 2010; 60 (1): 109-112 (15 ref.)

**Keywords:** Oxytocics; Uterine Inertia-drug therapy; Postpartum Hemorrhage-drug therapy; Treatment Outcome

Karachi Pakistan, from 1st June 2004 to 30th May 2005. During this one year 126 cases of multipara had primary post partum hemorrhage. Inclusion criteria was multipara who developed PPH due to uterine atony and who did not respond to any other non surgical treatment modalities. Medical diseases were not considered in exclusion criteria. Primary gravida and those with secondary PPH were excluded. Out of these 26 patients had not responded by conventional methods. 250 micro g of PG F[2] alpha was administered intra-myometrial. Syntocinon drip was stopped before and ergometrine was not given along this. The patients without uterine atony were managed according to the cause. In this study 26(100%) received PGF[2] alpha out of which 22 (84.6%) patients responded successfully. Two patients required second dose. It was repeated at 15-90 minute interval maximum three doses were tried. The four patients [15.38%] who failed to response, two patients had chorioamnionitis, one patient had placenta praevia. One patient had no uterine response possibly due to delayed use of drug and excessive blood loss. PGF[2] alpha is a safe drug which can reduce the rate of surgical procedures in cases uterine atony.

**Dirofilariasis**

**diagnosis**

Human subcutaneous dirofilariasis due to dirofilaria [Nochtiella] repens: clinically suspected as cutaneous fascioliasis.

Ashriff, K.; Golchaj, J.; Geranmayeh, S.
Gilan University of Medical Sciences - School of Medicine - Department of Medical Microbiology
**Iranian Journal of Public Health** 2010; 39 (1): 105-109 (20 ref.)

**Keywords:** Dirofilaria; Fascioliasis; Diagnosis, Differential

**Abstract:** The significant increase in the number of human subcutaneous dirofilariasis in recent years, suggests the appearance of a new health problem in the old world with most cases reported from Mediterranean countries. Besides the present case, eleven cases of human subcutaneous dirofilariasis have been detected in Iran, three of which belong to Gilan Province, northern Iran. We present an autochthonous case of subcutaneous Dirofilaria repens infection in a 39-year-old woman from Kouchesfahan district of Gilan Province, manifest as an itching and highly erythematous subcutaneous tender nodule on her right thigh. The nodule was excised by a dermatologist as a suspected case of cutaneous fascioliasis. Microscopic examination of the excised nodule revealed the presence of D. repens. Since Gilan Province is the endemic region for human fascioliasis and several cases of cutaneous fascioliasis have been detected in the province during last two decades, we propose the physicians and pathologists to take in to account subcutaneous dirofilariasis as an emergent zoonosis causing dermal and visceral lesions which may sometimes misdiagnose as malignant tumors, and also as differential diagnosis of cutaneous fascioliasis.

**Disseminated Intravascular Coagulation**

**epidemiology**

Disseminated intravascular coagulation in obstetric patients at combine Military Hospital Quetta.
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**PAFMJ - Pakistan Armed Forces Medical Journal** 2010; 60 (1): 119-122 (13 ref.)

**Keywords:** Disseminated Intravascular Coagulation-etiology; Pregnancy Complications, Hematologic

**Abstract:** To describe the frequency of disseminated intravascular coagulation [DIC] as a complication in obstetric patients. Descriptive study. This study was carried out between April 2006 to August 2007 at the department of obstetrics and gynecology, Combined Military Hospital Quetta. All pregnant subjects who presented at the out-patient department, CMH Quetta for delivery or related complaints were considered for inclusion into the study. After various exclusions, a total of 1939 patients were included in our study. They were consented, and evaluated with detailed history and clinical examination for the presence of DIC. In suspected patients DIC screening was ones's, including fibrinogen levels, prothrombin time, partial thromboplastin time, platelet and fibrin degradation products. These patients were regularly followed up during the course of the disease till their discharge or otherwise. Out of 1939 subjects 15 [0.77%] subjects developed disseminated intravascular coagulation. Out of these 15 subjects, 10 [66.7%] subjects were having no booking record. 10 [66.7%] subjects developing DIC were multi-gravida, while 5 [33.3%] were primary gravida. The major complications leading to DIC in our subjects were abruption 4 [26.7%], intrauterine death 4 [26.7%] and sepsis 4 [26.7%], 13 [66.7%] ladies were finally discharged without complications, while 1 [6.7%] subject developed acute renal failure and 1 [6.7%] subjects died. Disseminated intravascular coagulation is a grave complication of obstetrical population, which increases the maternal mortality and morbidity.
Diving

adverse effects

Frequency of ear problems associated with diving and their prevention in Pakistan navy.
Zaheer, Saqib; Mahmood ur Rehman; Rizvi, Farwa; Afzal, Muhammad
AFPGMI Rawalpindi
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 135-139 (18 ref.)
Keywords: Ear Diseases-etiology; Military Personnel; Ear Diseases-epidemiology; Questionnaires; Cross-Sectional Studies; Occupational Diseases; Barotrauma
Abstract: To determine the frequency of different ear problems among divers of Pakistan Navy and the factors contributing to them. A cross sectional descriptive study. This study was conducted in three major units of Pakistan Navy where active diving is going on all the times from March 2007 to July 2007. 100 divers were selected by consecutive sampling. They were examined and interviewed following a pre-designed questionnaire by the investigator. The overall frequency of ear problems was 54% including infection, barotraumas and deafness. Frequency of ear problems was more in those having more service as divers. It was about 8% in divers with diving experience 1-8 years, 32% in 9-16 years and about 66% in those with diving experience of more than 16 years [p<0.001]. There is an association between years of diving and sensorineural hearing loss. Frequency of ear problems was more in smokers [58%] as compared to non smokers [26%] and it was found statistically significant [p<0.004]. Major factors contributing to the ear problems included Upper Respiratory Tract Infections and diving after long intervals. Comprehensive medical examination should be done before selection of the divers for Prevention and early diagnosis.

DNA Damage

genetics

Mahrous, Hanan S.
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Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 195-200 (34 ref.)
Keywords: Micronucleus Tests-methods; Lymphocytes; Folic Acid; Vitamin B 12; Smoking; Age Factors; Sex; Risk Factors
Abstract: A number of host risk factors affecting background rates of chromosomal damage in peripheral blood lymphocytes was undertaken into a view to aid in the evaluation of these factors. To determine the effect of age, gender, smoking, vitamin B[12] and folic acid serum level on DNA damage as measured by micronucleus frequency in peripheral blood lymphocytes. Followed by an intervention study to determine whether supplementation with folic acid and vitamin B[12] could alter the micronucleus index. Cytokinesis block micronucleus [CBMN] technique was performed on 36 healthy volunteers; 17 males [mean age 43.47years] of them 19.4% smokers and 19 females [mean age 45 years]. The effect of the studied factors on base line level of MN was evaluated. The dietary intervention involve supplementation with a daily dose of 2000 micro g folic acid and 25 micro g vitamin B[12] [10 times RDI] over a period of 2 months. The study showed that: [i] The frequency of micronuclei was positively correlated with age [r=0.809, P=0.00] and that the correlation was more pronounced among females [r=0.842, P=0.00] than males [r=0.800, P=0.00]. [ii] Gender has no effect on MN frequency [P=0.287], as well as smoking [P 0.185]. [iii] MNfrequency was negatively correlated with serum folic acid [r=-0.469, P=0.004], and serum vitamin B[12] [r=-0.590, P 0.00]. After vitamin supplementation MN frequency was significantly reduced [P=0.00], this reduction was more significant in persons with high initial MN frequency [r=-0.531, P=0.001], and was significantly negatively correlated with serum vitamin B[12] [r=-0.480, P=0.003] and serum folic acid [r=-0.345, P=0.039]. [i] There is an age related increase in MNfrequency [ii] Supplementation with 2000 micro g folic acid and 25 micro g vitamin B[12] in tablets is sufficient to minimize MN frequency. Thus it appears that dietary intake above the RDI of these vitamins could be of particular importance in genomic stability, for which ageing is a contributing factor.
Doxorubicin toxicity

The protective role of alpha-Lipoic acid against doxorubicin-induced cardiotoxicity in male albino rats [a light and transmission electron microscopy study].
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Suez Canal University - Faculty of Medicine - Department of Histology and Cell Biology

Keywords: Heart-ultrastructure; Microscopy, Electron; Protective Agents; Thioctic Acid-therapeutic use; Treatment Outcome; Rats; Male

Abstract: Doxorubicin [DOX] is an important anti-neoplastic agent. Cardiotoxicity, which mediated by free radicals, is the main side effect of it, leads to induce left ventricular systolic dysfunction and congestive heart failure. The aim of the present study was to investigate the postulated preventive role of alpha-lipoic acid [LA] which is capable of neutralizing a wide variety of free radicals against doxorubicin [DOX]-induced cardiotoxicity. Twenty adult male albino rats were used in this study. They were randomized into four groups [5 rats/group]. Group I [control] received a single intraperitoneal [IP] injection of 3 ml of sterile distilled water. Group II [control LA] received a single IP injection of 3 ml of sterile distilled water and LA [100 mg/kg BW/day] orally for 7 days. Group III [Dox-injected group] received a single IP dose of Dox [1 5mg/kg BW in 3 ml of sterile distilled water]. Group IV received LA as in group II for 5 days before and 2 days after DOX injection. Animals were sacrificed 48 hours after DOX injection. Specimens from the left ventricle of the heart were processed for histological [H and E; Masson's trichrome] and ultra-structural study. Quantitative measurements [cardiomyocyte diameter and color area percentage of collagen] were done using image analyzer [Super eye-Heidi soft]. Group I and II showed no changes. Light microscopic results of group III showed damage and necrosis of cardiomycytes in addition to congestion and mononuclear cellular infiltration. The cardiomyocytic diameter and the surrounding fibrous tissue were significantly increased in this group compared to other studied groups. Ultrastructural results showed loss of cross striation and mitochondrial degeneration. These deleterious changes were significantly improved in group IV. DOX induced cardiotoxicity can be protected by using LA.

Drugs, Essential

Impact of using essential drug list: analysis of drug use indicators in Gaza Strip.
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EMHJ - Eastern Mediterranean Health Journal 2010; 16 (8): 886-892 (17 ref.)

Keywords: Cross-Sectional Studies; Prescriptions Drugs; Drugs, Generic; Physicians; Questionnaires

Abstract: A descriptive cross-sectional study evaluated the compliance of physicians with the Palestinian essential drug list [EDL] in all the government primary care clinics in the Gaza Strip. While 67.4% reported currently using the EDL 51.2% of these physicians reported problems in using it. The mean number of drugs per prescription was 1.92, the percentage of drugs prescribed from the EDL was 97.9 % but the percentage of drugs prescribed by generic name was only 5.5%. A copy of the EDL was available in 28.3% of clinics and the availability of key drugs was 82.6%. The compliance of physicians with the EDL was generally good, but more efforts are needed to encourage prescribing by generic name and to ensure the supply of key drugs.

supply and distribution

Availability of essential medicines in Sudan.
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University Sains Malaysia - Candidate

Keywords: Drugs, Essential-economics; Developing Countries; World Health Organization; Health Services Accessibility

Abstract: Although availability of essential medicines is one of the most important objectives of national medicines' policies, the unavailability of essential medicines remains a major problem for poor countries. The study was carried out to measure availability and duration of out of stock of essential medicines in Sudan. The study was carried out using the World Health Organization [WHO] Operational Package for Assessing and Monitoring Pharmaceutical Situation in Countries format for data collection. On the average, availability of selected essential medicines at the public pharmacy, medicine stores and the private pharmacies was found to be 80.6%, 90.0% and 93.0%, respectively. The survey found the mean duration of stock out at medicines store was 26.5 days and no records available about inventory control at the pharmacy level. Among the states, the study found low availability of medicines at North Kordufan public pharmacies. The study found no statistical significant difference as far as a Developing country
concerning availability of medicines at rural or urban areas \([p > 0.05]\). Generally availability and stock out duration of essential medicines in the Sudan were acceptable.

**Echinococcosis**

**Splenic hydatid cyst in Khartoum teaching hospital.**
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Khartoum Teaching Hospital - Department of Surgery
**Keywords:** Spleen-pathology; Hospitals, Teaching

diagnosis

**Primary hydatid cyst of the round ligament: case report.**
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EMHJ - Eastern Mediterranean Health Journal 2010; 16 (8): 913-915 (22 ref.)
**Keywords:** Echinococcosis-ultrasonography; Echinococcosis-surgery; Treatment Outcome; Round Ligament-pathology

**Ectodermal Dysplasia**

**Aplasia cutis congenita scalp: management options.**
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Reconstructive Surgery Hayatabad Medical Complex - Department of Plastic
JPMI - Journal of Postgraduate Medical Institute 2010; 24 (1): 36-40 (43 ref.)
**Keywords:** Scalp-pathology; Scalp-surgery; Transplants; Scalp-abnormalities; Treatment Outcome

Abstract: To document the management of aplasia cutis congenita scalp. This descriptive study was conducted in the Department of Plastic and Reconstructive Surgery, Hayatabad Medical Complex, Peshawar from February 2000 to September 2007. Eleven patients with aplasia cutis congenita scalp were referred to our unit. A split thickness skin graft from adjacent healthy scalp or thigh was used for coverage of the scalp wound. Among these eleven patients, seven were males and four females. Two patients were observed with associated congenital anomalies. The ages ranged from 05 days to 04 weeks. Mean age was 12.5 days. Split thickness skin grafts were used in all these patients. About 10% graft loss was observed in one patient. One patient developed CSF leakage after wound healing. This patient expired after 03 weeks. Early surgical intervention in the form of split thickness skin graft for wound coverage is the most favorable treatment for Aplasia cutis congenita.

**Eicosapentaenoic Acid**

**Effect of eicosapentaenoic acid [EPA] and vitamin e on the blood levels of inflammatory markers, antioxidant enzymes, and lipid peroxidation in iranian basketball players.**
Isfahan University of Medical Sciences - School of Health - Department of Nutrition
**Keywords:** Tocopherols; Antioxidants; Lipid Peroxidation; Basketball; Double-Blind Method; Interleukin-2-blood; Tumor Necrosis Factor-alpha-blood

Abstract: Exercise can change the release of numerous cytokines and modulate their receptor systems. Dietary w-3 lipids may decrease the levels of inflammatory cytokines and prostaglandins [PGs]. Therefore, in this study, we investigated the effects of exercise and eicosapentaenoic acid [EPA] supplementation, with or without vitamin E, on the blood levels of IL-2, TNF-alpha catalase, glutathione reductase, and MDA in male basketball players. Thirty-four well-trained male basketball players were enrolled into the study. Venous blood samples were obtained from all subjects between 5:00 and 6:00 p.m., after intensive endurance exercising for 2 hours, at the baseline and after intervention. Subjects received 2g EPA and/or 400 IU vitamin E or placebo depends on their groups for 6 weeks. There were significant fall [paired /-test] in TNF- alpha in group [P< 0.05], and in MDA in group 3 [P<0.05], whereas there were
significant increase in glutathione reductase in groups 1 and 3 [P< 0.05], and in MDA in group 2 [P< 0.05]. There were significant differences [Tukey] in glutathione reductase between groups 2 and 3 [P< 0.05], and in IL-2 between groups 1 and other groups [P< 0.01], but there were no significant differences in MDA, CAT, and TNF-alpha, among groups after 6 weeks of intervention. Six weeks of EPA+vitamin E supplementation enhances the plasma levels of IL-2 and erythrocytes glutathione reductase, whereas it reduces TNF-alpha, and 6 weeks of EPA supplementation alone enhances only the serum level of MDA.

**Eisenmenger Complex**

Use of remifentanil in a patient with eisenmenger syndrome requiring urgent cesarean section.
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**Middle East Journal of Anesthesiology** 2010; 20 (4): 577-580 (19 ref.)
**Keywords:** Cesarean Section; Piperidines-therapeutic use; Pulmonary Artery-drug effects; Blood Pressure-drug effects; Treatment Outcome

**Abstract:** We describe a case of 41 yr old multigravida at 35 weeks gestation, with a diagnosis of Eisenmenger syndrome, requiring urgent Cesarean section. The parturient had signs and symptoms of respiratory distress due to high pulmonary artery pressure, and the pregnancy was complicated by preeclampsia. A general anesthetic consisting of ketamine and etomidate and an intravenous infusion of remifentanil were used to provide stable anesthesia and analgesia for a successful delivery. The baby was delivered with high Apgar scores. The potential benefits and safety of the use of remifentanil in parturients with high pulmonary artery pressures are discussed.

**Electromagnetic Fields**

adverse effects

Effects of postnatal exposure to static magnetic field on the development of the cerebellar granule cells.
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Suez Canal University - Faculty of Medicine - Department of Anatomy
**Suez Canal University Medical Journal** 2009; 12 (1): 127-134 (17 ref.)
**Keywords:** Cerebellum-growth and development; Environmental Exposure; Cerebellar Cortex-ultrastructure; Microscopy, Electron; Rats; Animals, Newborn

**Abstract:** Many studies were performed to evaluate the effects of static magnetic fields [SMFs] on the processes of proliferation and migration of cerebellar cells to their final postnatal destinations. Granule cells are the most abundant interneurons in the cerebellum. Progenitors of these neurons actively proliferate during the first 2 postnatal weeks in external granular layer [EGL]. The granule cells in the EGL migrate inwards to form the internal granular layer [IGL], and the EGL disappears. So the postnatal development of the cerebellum depends on their postnatal proliferation and migration which is vulnerable to any micro-environmental insult. to evaluated the light and electron microscopic changes occurred to the cerebellar granule cells of the pups after postnatal exposure to SMF [20 mT]. Postnatal exposure to SMFs showed that there was a significant thinning in the EGL at the beginning of the study at postnatal thy 4, this significant decrease in thickness progressed in the first week. At two weeks when normally the EGL starts to disappear, it showed persistent increase in its thickness indicating delayed migration. At all ages of exposed group [P], EGL contained many apoptotic cells and some degenerated cells. IGL showed significant decrease in its cellular density till the postnatal day 15 concomitant with the period of delayed migration in the EGL. At the postnatal days 22, the cells in IGL began to regain its near normal cellular density but the IGL showed disarrangement of its crowded granule cells with absence of appearance of regular glomeruli among them with appearance of some degenerated cells among the granule cells. Many cells of the IGL also showed areas of cytoplasmic vacuolation. Postnatal exposure to SMFs produces some delay in the development and appearance of more apoptotic cells. But some of these changes in different stages of the postnatal development of the cerebellar cortex began to be less apparent with advancement of age.

Effects of prenatal exposure to static magnetic field on the development of the cerebellar purkinje cells.
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**Suez Canal University Medical Journal** 2009; 12 (1): 135-142 (19 ref.)
**Keywords:** Cerebellum; Purkinje Cells-growth and development; Purkinje Cells-ultrastructure; Microscopy, Electron; Rats; Animals, Newborn

**Abstract:** Many studies were performed to evaluate the effects of static magnetic fields [SMFs] on the processes of proliferation and migration of cerebellar cells to their final postnatal destinations. Purkinje cell [PC] as one of the most
critical station for all afferent input to the cerebellum as well as the major output from the cerebellum either direct or indirect through the other cerebellar neurons and development of Purkinje cells depends on their postnatal migration which is vulnerable to any micro-environmental insult. To evaluate the light and electron microscopic changes occurred to the cerebellar PCs of the pups after prenatal exposure to SMF [20 mT]. Prenatal exposure showed a significant decrease in the number of PCs as compared with that number in the control group throughout the time of study with appearance of some pathological changes at the cellular level obvious from the postnatal day 4 till the end of the study, as there were many apoptotic cells, few cells degenerated with astrocytosis near the Purkinje cells with large cytoplasmic vacuoles inside the cells and many cells became atrophied cells. The prenatal exposure to static magnetic field led to decrease ability of the proliferation, delay in the development and appearance of some degenerative changes in different stages of the postnatal development of the cerebellar cortex and these changes persisted till the adult life.

**Histological study on the effects of electromagnetic field on the liver of albino rats 1. Magnetic stimulatory effect on the proliferation of bile duct epithelium-like cells.**

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**Keywords:** Liver-pathology; Bile Ducts-pathology; Histology; Liver Regeneration; Rats; Male

**Abstract:** Electromagnetic fields [EMF] exposure exists at home, workplaces as a result of all types of electrical equipment and building wiring as well as a result of nearby power lines. It represents one of the invisible environmental pollutant factors that affect animals and human health. The present work aimed to explore the pathogenesis of ductular proliferation and may also allow for better understanding its mechanism in the hepatic regeneration. Twenty eight adult male albino rats [Rattus norvegicus] were utilized to study the effects of EMF equalling 2 ml Tesla, on the proliferation of periportal biliary epithelial cells. Magnetic exposure was applied for 30 minutes a day, 3 days a week for 2 weeks. At the end of the experiment, the animals were sacrificed after 1, 3, 6, 15, 30 and 60 days following exposure Proliferations of numerous ductular structures surrounded by degenerated hepatocytes, hepatic stellate cells and inflammatory cells were observed at the expanded portal areas. Proliferations of ductular structures were observed around the portal area to repopulate the destroyed liver cells. Numerous foci of newly formed hepatocytes that replace damaged hepatocytes were observed adjacent to the ductular structures. The presence of newly formed hepatocytes accompanied with partial disappearance of ductular epithelial cells and replacement of the periportal necrotic cells. The results also revealed that the degree of activation of ductular proliferated reaction was positively correlated with the degree of inflammatory activity and liver damage. Hepatic regeneration is related to ductular proliferated cells. The histological investigation of the nature of these cells will help to understand the mechanism of hepatocytes regeneration.

**Encephalocele**

**Tecto-cerebellar dysraphia manifesting as occipital meningocele associated with congenital melanocytic nevi and pectus excavatum.**

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**Keywords:** Meningocele; Cerebellum-abnormalities; Nevus; Funnel Chest; Dandy-Walker Syndrome

**Abstract:** Only few reported cases of tectocerebellar dysraphia with occipital encephalocele have been reported in the literature. Three month baby boy, the first child of healthy, consanguineous parents presented with a small swelling over the occipital region since birth. The child also used to have apneic spells without cyanosis and spontaneous recovery. CT scan showed absence of the cerebellar vermis, absence of tectum and the 4[th] ventricle communicating with the occipital meningocele sac and an occipital bone defect. The excision of the encephalocele sac was performed, however the child continued to have apneic spells and did not do well. In our child irregular respiration probably was the manifestation of the tectocerebellar dysraphia syndrome complex and associated shunt malfunction followed by seizures decompensated the physiology of the child leading to fatal outcome.
Endocarditis

Clinical features and outcome of infective endocarditis in Yemeni patients treated with empirical antibiotic therapy.
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Heart Views 2010; 11 (1): 2-9 (33 ref.)

Keywords: Endocarditis-drug therapy; Questionnaires; Treatment Outcome; Blood Sedimentation; Echocardiography

Abstract: Infective endocarditis is a common disease in Yemen. Although the incidence of rheumatic valvular disease and uncorrected congenital heart disease in adults is high in Yemen, there are few data regarding the pattern, characteristic features and outcome of infective endocarditis in Yemen. The aim was to study the characteristic, clinical features and diagnostic criteria of infective endocarditis in Yemeni patients and the outcome in patients treated with medical therapy. Seventy-two consecutive patients admitted to Kuwait teaching hospital in Sana'a with suspected infective endocarditis between June 1, 2005 and June 1, 2007 were included in this study. A questionnaire including history, clinical findings, and result of requested investigations, treatment, complications and outcome was used. The diagnosis was based on Dukes criteria, which proposed two major or five minor criteria. In our study, we included raised erythrocyte sedimentation rate [ESR] as a minor criteria. The patients were classified as definite, possible and rejected cases. All patients received empirical antibiotic therapy. The mean age was 28.56 +/- 14.5 years. Men were 30 [42.2%] while women were 42 [57.7%]. 59 [81.9%] of the patients had been admitted due to fever. Past history of rheumatic heart disease was positive in 38 [53.3%] of the patients. Mitral regurgitation was the commonest form of valvular affection 54 [82.1%] of patients followed by aortic regurgitation in 45 [63%]. Anemia was present in 53 [74%] while raised erythrocyte sedimentation rate was high in all patients. Vegetations were detected by transthorasic echocardiography in 51 [70.83%] of the patients while blood culture was positive in only 7 [9.6%]. After adding high ESR to the criteria, definite infective endocarditis were found in 34 [47.2%]; possible in 38 [52.7%] and no rejected patients. Sixty-two [87.5%] of the patients improved and were discharged in good general condition. Nine patients died, an In hospital mortality of 12.5%. Patients with IE in Yemen were younger than those patients in western countries, RHD is the commonest predisposing factor. Duke's criteria in addition to high ESR as minor criteria improved the diagnostic possibilities and using empirical antibiotic therapy improves the outcome.

Epilepsy

Women and epilepsy: Sudanese experience.
Safa; Hussein, Abbashar; Sidig, A.; Yassien, Farouq; Saad, Mohamed; Hamad, Ahmed; El Adil, Omer; Mubark, Bedraidin; Eltoum, Hassan A.A.; Aldar, Mohmad Malik; Ahmad, E.M.; Widaa, Y.A.

Keywords: Women; Seizures; Pregnancy Complications; Pregnancy, Unplanned; Cross-Sectional Studies; Epilepsy-drug therapy; Anticonvulsants; Contraceptive Agents; Drug Interactions

Abstract: Epilepsy is equally prevalent in men and women. However, for women there are unique concerns related to hormone effects on seizures and the effects of seizures and antiepileptic drugs [AEDs] on reproductive health. Some AEDs reduce the efficacy of oral contraceptive agents, increasing the probability of unplanned pregnancies. Seizure frequency may change during pregnancy, seizures may cause pregnancy complications, and the treatment of a woman with epilepsy must consider all these issues. To study the clinical presentation of epilepsy among adult Sudanese females and to verify aspects of epilepsy specific to women. This is a cross sectional descriptive non intervention clinical based study; it was carried out in Elshaab Teaching Hospital and El-shiekh Mohamed Kheir charity clinic, from February-2008 to June-2008. 630 female patients with epilepsy were included in the study. The study showed that 72% of the patients had generalized epilepsy and 26% had partial epilepsy, primary epilepsy is more common than secondary epilepsy, 54% of our patients had warning symptoms and 39.7% had triggering factors, irregular menstrual cycle was observed in 28%, 22% of our patients had catamenial seizures, 7.1% had increased frequency of seizures during pregnancy. Obstetric complications were common among our studied group. The incidence of infertility increased among our studied group. Women had differences in presentation and control of epilepsy that must be understood and considered when treating women with epilepsy.
Estradiol

adverse effects

Estradiol induced thymus alterations in adult male albina rat: histological and immunohistochemical study.
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Keywords: Thymus Gland-ultrastructure; Microscopy, Electron; Immunohistochemistry; Rats; Apoptosis
Abstract: Thymus is responsible for generation of most of circulating T-cells, Although estrogen regulates thymic development, exposure to increasing amounts of exogenous estrogen would modulate thymus structure, function as well as immune system. Was to study the structural changes of thymus after estradiol injection in an attempt to verify the mode of action. 40 adult male albino rats were used dividing into control and experimental groups. Each animal of experimental groups [B 1, B2 and B3] was injected subcutaneously with 5, 25 and 50 mg/kg body weight of estradiol valerate [E2], respectively daily for two weeks. Thymus was dissected and weighted. One lobe was processed for paraffin sections and stained with TUNNEL method to demonstrate apoptosis and the other one used to be examined by transmission electron microscope. Thymus was shrunk and its weight was significantly decreased only in subgroups B2 and B3. Their LM examinations showed degenerated thymocytes and epithelial cells with dense bodies and debris in between intact cells. Large cells enclosed disrupted cells within their cytoplasm. EM examination revealed degenerated thymocytes exhibiting criteria of apoptosis, apoptotic bodies, degenerated epithelial cells and vacuoles of different sizes and shapes inside or outside the cells. Large cells exhibited criteria of epithelial cells enclosed within their cytoplasm intact cells, apoptotic cells, apoptotic bodies and lysosomes were observed. Macrophages with lysosomes and tissue debris were also recorded. Immunohistochemical studies revealed marked increase in the dense brown apoptotic nuclei in subgroups B2 and B3 comparing with control. Estradiol induced involution and degeneration of thymus through increasing apoptosis of thymocytes.

Euthanasia

Attitude of Pakistani doctors towards euthanasia and assisted suicide.
Afzal, Muhammad Nasir; Latif, Rabia; Munir, Tahir Ahmad
Shifa College of Medicine Islamabad
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 9-12 (20 ref.)
Keywords: Suicide; Attitude; Physicians
Abstract: To determine the attitude of junior and senior Pakistani physicians towards euthanasia and assisted suicide. A descriptive study. The study was carried out at Shifa International Hospital Islamabad in 2006 [January to November]. Shifa International Hospital Islamabad is a 500 bed tertiary care hospital with 400 resident staff and 140 specialists. An anonymous enclosed questionnaire on the respondent's opinion of euthanasia / assisted suicide was distributed to the doctors who were requested to rate according to degree of agreement, willingness to participate in these practices, and safeguard or restrictions needed if the practices were legalized. The total response rate was 66% and male to female ratio was 7:1. Most of the respondents were Muslims and had familiarity with the subject. Seventy seven percent believe that the practice of euthanasia and assisted suicide was not ethically justified, while 9% were in its favor. Pakistani doctors oppose euthanasia and assisted suicide.

Eye Diseases

pathology

Ophthalmic Pathology: the history of a growing profession.
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King Khaled Eye Specialist Hospital - Pathology and Laboratory Medicine Department
Keywords: Eye Diseases-history; History of Medicine; Pathology
**Eye Foreign Bodies**

**surgery**

*Foveal protection with viscoelastic material during removal of posterior segment foreign bodies.*

Banaee, Touka; Sharepoor, Maria  
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*Journal of Ophthalmic and Vision Research* 2010; 5 (1): 68-70 (6 ref.)  
*Keywords*: Vitrectomy; Fovea Centralsis; Ophthalmologic Surgical Procedures  
*Abstract*: Foreign bodies may drop during removal from the posterior segment and result in foveal damage. Due to high specific gravity and viscosity, ophthalmic viscosurgical devices [OVDs] can dampen and redirect the force of the dropping foreign body and therefore protect the fovea. Herein we describe our technique of foveal protection with OVDs and briefly demonstrate the results in five eyes with large posterior segment foreign bodies.

**Eyelid Neoplasms**

*Eyelid carcinoma in patients with systemic lymphoma.*

Shome, Debraj; Bell, Diana; Esmaeli, Bita  
*Journal of Ophthalmic and Vision Research* 2010; 5 (1): 38-43 (26 ref.)  
*Keywords*: Lymphoma, Non-Hodgkin; Retrospective Studies; Immunosuppression; Carcinoma, Squamous Cell; Neoplasm Recurrence, Local  
*Abstract*: To describe a series of patients with Non-Hodgkin's lymphoma [NHL] and concomitant eyelid carcinoma. In this non-comparative interventional case series, we retrospectively reviewed the medical records of 5 patients with NHL who developed eyelid carcinoma. The patients included one female and four male subjects. Systemic lymphoma had been diagnosed 1 to 72 months prior to development of the eyelid carcinoma. The lesions were basal cell carcinoma in three, and squamous cell carcinoma in two cases. The lymphoma was advanced [stage III or IV] in all patients. Four patients underwent surgical excision of the carcinoma and one patient was awaiting surgical treatment after completing systemic chemotherapy. Three subjects had high-grade carcinomas. Two patients had perineural invasion; one received adjuvant radiotherapy postoperatively but the other did not due to receiving systemic chemotherapy for recurrent NHL. Systemic lymphoma maybe associated with aggressive eyelid carcinomas. Perineural invasion is frequently encountered in this situation and should be treated with adjuvant radiation therapy to decrease the likelihood of local recurrence.

**Fatty Acids, Omega-3**

*Omega-3 in arabian gulf fish. Part VI: final article in a 6-part series on the cardiac health benefits of omega-[PUFA and omega-3 content in Arabian gulf fish.*

Albinali, H.A. Hajar  
Minister of Public Health - Hamad Medical Corporation - Department of Cardiology and Cardiothoracic Surgery  
*Heart Views* 2010; 11 (1): 21-23 (9 ref.)  
*Keywords*: Fishes; Indian Ocean; Fish Oils

**Flavivirus Infections**

**epidemiology**

*Prevalence of GBV-C RNA in HIV infected individuals in Tehran, Iran.*

Keyvani, H.; Mohammadi, A.; Haji abdolbaghi, M.  
Iran University of Medical sciences - School of Medicine - Department of Virology  
*Keywords*: Flavivirus-genetics; Prevalence; Polymerase Chain Reaction; Enzyme-Linked Immunosorbent Assay  
*Abstract*: GB virus C [GBV-C] is a flavivirus that was characterized in 1995. The prevalence of GBV-C RNA in HIV-infected subjects has not been previously studied in Iran and was therefore determined. We have investigated serum samples of 80 patients from Imam Khomeini Hospital, Tehran, Iran, whose HIV infection was confirmed in our laboratory by Western-blotting. We used nested-PCR to detect GBV-C/HGV RNA in their sera. GBV-C/HGV RNA was detected in 15 [18.8%] of 80 patients. There was no significant difference in GBV-C/HGV RNA prevalence between
males and females, in different age groups and HIV viral loads groups. The prevalence of GBV-C RNA was high in HIV-infected patients. There was no association between GBV-C RNA prevalence and specific gender, age, and HIV viral loads groups.

Furunculosis

Furuncular myiasis.
Tariq, Muhammad
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Military Hospital Rawalpindi
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 143-144 (10 ref.)
Keywords: Myiasis; Larva

Garlic

drug effects

Evaluation of the role of garlic on the structure of liver and gastric mucosa in aged male albino rat: a histological and histochemical study.
Ghafreer, Hemmat H.; El Gamal, Dalia A.; Abdel Maksoud, Safaa A.; Abdel Motagally, Fatma Y.
Assiut University - Faculty of Medicine - Department of Histology
Egyptian Journal of Histology [The] 2009; 32 (1): 129-144 (52 ref.)
Keywords: Liver-physiology; Gastric Mucosa-physiology; Aged; Rats; Liver- ultrastructure; Gastric Mucosa-ultrastructure; Microscopy, Electron
Abstract: Age related changes in the hepatic and gastric tissues have been discovered and are considered to be implicated in the pathogenesis of some diseases. To evaluate the effect of garlic as a prophylactic or a therapeutic tool against age related changes in the liver and stomach. 80 male albino rats were used. Classified into four groups: group 1: 15 rats served as control adult, group 2: 15 rats served as control aged, group 3: 25 adult rat treated with Tomax in a dose of 100 mg/kg orally daily till aging and group 4: 25 aged rats treated with Tomax in the same previous dose for 4 months. Animals were sacrificed and specimens from the liver and stomach were prepared for light and electron microscopy. Light and electron microscopic examination of liver and stomach of group 1 revealed the normal structure. Age related changes were detected in group 2 in the form of vacuolation of cells lining the gastric glands and disturbed hepatic architecture. Ultrastructurally, degenerative changes in parietal and chief cells were observed. Hepatocytes showed variable sized nuclei with marginated hetero chromatin clumps, areas of rarified cytoplasm, fragmented endoplasmic reticulum and interrupted cell membrane. Tomax treatment in group 3 greatly improved the aging changes in liver and gastric mucosa. Decreased vacuolation of gastric epithelial cells and restored hepatic architecture were observed. Ultrastructural degenerative changes were less pronounced in both tissues. In group 4 there was no obvious improvement but they were more or less similar to group 2. It could be concluded that garlic could be used as a prophylactic measure against age induced structural changes in the liver and stomach rather than being used as a therapeutic one.

Gastrectomy

adverse effects

Functional reversal of duodenal switch with maximum lengthening of gommon channel in a child's C cirrhotic patient: case report and review of the literature.
Bawahab, Mohammed; Duncan, Andrew; Billy, Helmut
King's Khalid University - Department of surgery
Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 7-10 (15 ref.)
Keywords: Postoperative Complications; Weight Loss; Hypocalcemia-blood; Hypoalbuminemia-blood; Liver Cirrhosis; Review Literature as Topic
Abstract: Functional Reversal of Douodenal Switch is avariant of biliopancreatic bypass and is a rare procedure which involves sleeve gastrectomy and pylorus preservation with aduodenal transaction. Many complications results from the procedure specially liver friture so consolation for reversal of duodenal switch should be entertained prior to the onset of the complications.
Gilbert Disease

Gilbert syndrome in Iran, Fars province.
Hemmati, Fariba; Saki, Forugh; Saki, Nasrin; Haghighat, Mahmood
Shiraz University of Medical Sciences - Department of Pediatrics
Annals of Saudi Medicine 2010; 30 (1): 84 (7 ref.)
Keywords: Diagnosis, Differential; Prevalence; Rifampin; Sensitivity and Specificity

Glucomata

therapy

Controlled Cyclophotocoagulation with diode laser in refractory glaucoma and long term follow up at King Abdulaziz University Hospital, Riyadh.
Osman, Essam A.; Al Muammar, Abdulrahman; Mousa, Ahmed; Al Mezaine, Hani; Al Obeidan, Saleh A.
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King Saud University - College of Medicine - Department of Ophthalmology, King Abdul Aziz University Hospital, King Abdul Aziz Road
Keywords: Lasers Semiconductor; Intraocular Pressure; Visual Acuity; Hospitals, University
Abstract: To evaluate the clinical efficacy and safety of controlled contact transscleral diode laser Cyclophotocoagulation [COCO] procedure in reducing the Intraocular Pressure [IOP] among patients with refractory glaucoma. Thirty two patients [35 eyes] with refractory glaucoma in prospective clinical studies were treated with trans-sclera diode laser in a controlled manner. The energy power used was 5 W in adults and 3 W in children, exposure time was 0.5 s, a total of 16 shots were applied over ciliary body and four shots in each quadrant. Pre and postoperative IOP were measured at different postoperative visits. Snellen visual acuity, the number of anti-glaucoma medications and associated complications were also recorded. Student Ttest was used to compare the pre and post intervention IOPs, while Wilcoxon Signed Ranks test was used, to detect significance change in medication dependency. The mean [SD] follow up time was 80.2[+/- 9.6] months, range [36-84] m, where the mean IOP was significantly reduced from 35.1 mm Hg [+/- 10.7] before intervention to 18.8 mm Hg [+/- 7.3] after intervention, in the final visit [P < 0.0001]. Complete success was achieved in seven eyes [20%], 22 eyes [62.8%] showed qualified successes and complete failure was reported in six eyes [17.1%]. The overall success rate was 82.8% [95% CI: 70.4-95.3]. Visual acuity improved.

Glucosephosphate Dehydrogenase Deficiency

epidemiology

Epidemiological, clinical and laboratory profile of glucose-6-phosphate dehydrogenase deficiency in the middle and north of Iraq: a comparative study.
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University of Baghdad - Al Kindy College of Medicine - Department of Paediatrics
Keywords: Sex Distribution; Glucosephosphate Dehydrogenase Deficiency-diagnosis; Glucosephosphate Dehydrogenase Deficiency-blood
Abstract: This study determined the epidemiological, clinical and laboratory profile of glucose-6-phosphate dehydrogenase [G6PD] deficiency in Baghdad [central Iraq] and compared it with previous data from Mosul [northern Iraq]. We reviewed the records of 156 under-5-year-olds with G6PD deficiency admitted to 3 hospitals in Baghdad over a 6-year period. A preponderance of males was noted in both Baghdad and Mosul [1.6:1 and 3.4:1 respectively]. Family history of G6PD deficiency was positive in 19.2% of patients in Baghdad and 13.6% in Mosul. A majority of patients in Baghdad [69.2%] and Mosul [76.1%] showed haemolysis within 1-3 days of exposure to noxious agents. Similarities in the profiles from Baghdad and Mosul suggest that there are similar G6PD variants and similar exposure to precipitating agents.
Frequency of glucose-6-phosphate dehydrogenase [G6PD] deficiency in asymptomatic Pakistani population.
Mehmood, Aamer; Akhtar, Mohammad; Niazi, Muhammad Farooq Khan
E-mail:mir_aamer@hotmail.com
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 17-20 (11 ref.)
Keywords: Cross-Sectional Studies; Diagnosis, Differential; Anemia, Hemolytic
Abstract: To determine the frequency of G6PD deficiency in asymptomatic Pakistani population. Cross sectional study. This was carried out at Pakistan Air Force [PAF] Hospital at PAF Base Masroor Karachi between June 2004 - September 2007. Healthy young males and females between the ages of 13 to 28 years were tested for G6PD deficiency. None of the individuals had the findings of chronic hemolytic anemia. Their test was carried out on Trinity Biotech visual, qualitative, colorimetric procedure for determining G6PD deficiency using dichlorophenol indophenols as an indicator. During the study period 888 individuals, 804 males and 84 females were tested for G6PD deficiency. Forty [4.5%] individual had G6PD deficiency. All were otherwise healthy with normal general physical examination, complete blood count, blood glucose level, liver function tests, renal function tests, lipid profile, urine analysis, electrocardiogram and X- Ray chest. Out of 804 males 40[5.0%] had G6PD deficiency. None of the 84 females had the enzyme deficiency. G6PD deficiency is observed to be 4.5%. Our findings are in conformity with W.H.O data for geographic distribution of G6PD deficiency in Pakistan. It should be considered in the differential diagnosis of hemolytic anemia, especially following drug administration.

Goldenhar Syndrome
diagnosis

Goldenhar syndrome in an infant of diabetic mother.
Gharehbaghi, Manizheh Mostafa; Ghaemi, Mir Reza
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Tabriz University of Medical Sciences - Department of Pediatrics
Keywords: Diabetes, Gestational; Congenital Abnormalities
Abstract: Goldenhar syndrome [oculoauriculovertebral dysplasia] is a rare congenital anomaly with unknown etiology and consists of non accidental association of hemifacial microsomia, auricular anomalies, epibulbar dermoid and vertebral anomalies. Although some malformations are more frequent in infants of diabetic mothers, developmental defects of first and second branchial arch is not a common finding in these patients. We report a female case of Goldenhar syndrome in a newborn infant of a diabetic mother [IDM]. Follow up of this patient after 6 months showed normal neurodevelopment and no evidence of hearing loss. She had developed epibulbar dermoid tumor in her right eye. It is necessary to evaluate IDM for presence of anomalies implying oculoauriculovertebral dysplasia.

Gonadal Dysgenesis

XY gonadal agenesis syndrome: occurrence in a child.
Ali, Syed Khawar; Hashim, Rizwan; Manzoor, Syed Mohsin; Khan, Farooq Ahmad; Ali, Salman
E-mail:syedkhawarali@yahoo.com
Armed Forces Institute of Pathology
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 147-148 (5 ref.)
Keywords: Sex Differentiation Disorders; Karyotyping

Guillain-Barre Syndrome
rehabilitation

Guillain barre syndrome: new venues in rehabilitation.
Bokhari, Syed Zahid Hussain; Zahid, Samina
Pain and Plegia Centre Dabgari Gardens - Khyber Girls Medical College
JPMI - Journal of Postgraduate Medical Institute 2010; 24 (1): 73-76 (9 ref.)
Keywords: Guillain-Barre Syndrome-therapy; Acupuncture
Harderian Gland

anatomy and histology

A comparative study of the harderian gland in the female rat and female rabbit [A histological, histochemical, scanning electron microscopic and morphometric study].
Eltony, Sohair A.M.
E-mail:sohair_eltony@yahoo.com
Assiut University - Faculty of Medicine - Department of Histology
Keywords: Rats; Rabbits; Female; Harderian Gland-ultrastructure; Microscopy, Electron, Scanning; Comparative Study
Abstract: The Harderian gland [HG] is a large retrobulbar, tubuloalveolar organ. It is present in many animals possessing a nictitating membrane [third eye lid]. Compare the microscopic features of the HG in the female rat [as an example of rodents] with those of the female rabbit [as an example of mammals]. Using histological, histochemical and morphometric techniques on the HG in adult female rat [3 months old] and rabbit [4.5 months old]. A total number of 6 adult animals were used in each species. By gross inspection the Harderian gland is bibbed. In the rat, the two lobes are similar in colour and texture while in the rabbit, the small lobe is white and the large lobe is red [pink]. The gland is covered by a thin C.T. capsule with species variations both in structure and auto fluorescence. In the rat the two lobes show a fundamentally similar histological structure and the secretory epithelium is formed of two types of cells, type A and type B. While in the rabbit the two lobes have different histological structure and each lobe is formed of a single type of cells that differs in both lobes. The contents of the lumina of the tubuloalveoli vary in the two species indicating different modes of secretion. Statistical difference in the arbitrary area of the tubuloalveoli between the large and small lobes of the gland is insignificant in the rat but it is significant in the rabbit. In both species a single extra glandular excretory duct is detected at the hilum of the gland. In the rat the wall of the duct possess diverticula and the lining epithelium comprises some serous/or mucous acini. While in the rabbit, the structure of the duct is simple and it is lined by a low columnar epithelium with some goblet cells. Further research will be needed to correlate the different histological structure between the female rat and rabbit HG with the biology of these animals and to their functional significance.

Health Policy

Role of ideas and ideologies in evidence-based health policy.
Prinja, S.
E-mail:shankarprinja@gmail.com
London School of Hygiene and Tropical Medicine
Keywords: Evidence-Based Practice; Research
Abstract: Policy making in health is largely thought to be driven by three 'l's namely ideas, interests and institutions. Recent years have seen a shift in approach with increasing reliance being placed on role of evidence for policy making. The present article ascertains the role of ideas and ideologies in shaping evidence which is used to aid in policy decisions. The article discusses different theories of research-policy interface and the relative freedom of research-based evidence from the influence of ideas. Examples from developed and developed countries are cited to illustrate the contentions made. The article highlights the complexity of the process of evidence-based policy making, in a world driven by existing political, social and cultural ideologies. Consideration of this knowledge is paramount where more efforts are being made to bridge the gap between the [two worlds] of researchers and policy makers to make evidence-based policy as also for policy analysts.

Hearing Loss, Noise-Induced

Occupational hearing impairment among noise-exposed workers in printing facilities.
Fahim, Ayman Ekram; Ahmed, Mohamed Rifaat
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Suez Canal University - Faculty of Medicine - Department of Community Medicine
Suez Canal University Medical Journal 2009; 12 (1): 149-152 (11 ref.)
Keywords: Occupational Exposure; Workplace; Printing; Occupational Health
Abstract: The present field study aimed at determining the prevalence and factors affecting hearing impairment among printing workers. A cross sectional survey of 144 eligible printing facilities workers was done. Exposure categories to noise either [low vs. high risk] were assigned to studied workers according to the work nature. An interview questionnaire, workers audiometric assessment and workplace noise levels have been measured. The overall prevalence of hearing impairment was 31.3%, and among those [high risk exposure] 44.1% of workers had
hearing impairment, while only 8.5% of those exposed to low level of noise had hearing impairment. Multivariate analysis revealed that occupational exposure to noise, age and smoking were the strongest predictors [ORs: 7.3, 5.4, 2.8 respectively] of hearing impairment among studied workers. The observed hearing loss was located mainly at 4000 Hz and findings indicate that high risk workers are occupationally exposed to high levels of noise, and present high rates of noise-induced hearing loss [NIHL]. There is a need for interventions to reduce the risk for the development of NIHL among exposed workers.

**Hearing Loss, Sensorineural**

Report of audiogram.
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NIOC Health Organization - Shiraz NIOC Polyclinic - Division of Audiometry
**Keywords:** Hearing Loss, Noise-Induced; Audiometry

**Abstract:** A 26 year old man suffered from tinnitus, slight reduction in hearing ability and fullness in his left ear since two days before. Otoscopy revealed normal ear canal and tympanic membrane. He has worked in a utility section of a refinery company for five years and been exposed to steam out noise without wearing ear protection. The audiogram of patient is shown above. What's your diagnosis?

**Heart Rupture, Post-Infarction**

**diagnosis**

Timely diagnosis of left ventricular posterior wall rupture by echocardiography: a case report.
Esmaeilzadeh, Maryam; Mirdamadi, Ahmad; Kiavar, Majid; Omrani, Gholamreza
E-mail:mezadeh@rhc.ac.ir
Shaeed Raja Cardiovascular Medical and Research Center
*Journal of Tehran University Heart Center* [The] 2010; 5 (1): 36-38 (5 ref.)
**Keywords:** Heart Ventricles; Cardiac Tamponade; Pericardial Effusion; Echocardiography

**Abstract:** Left ventricular free wall rupture is responsible for up to 10% of in-hospital deaths following myocardial infarction. It is mainly associated with posterolateral myocardial infarction, and its antemortem diagnosis is rarely made. One of the medical complications of myocardial infarction is the rupture of the free wall, which occurs more frequently in the anterolateral wall in hypertensives, women, and those with relatively large transmural myocardial infarction usually 1-4 days after myocardial infarction. We herein present the case of a 66-year-old man suffering inferior wall myocardial infarction with abrupt hemodynamic decompensation 9 days after myocardial infarction. Emergent transthoracic echocardiography revealed massive pericardial effusion with tamponade, containing a large elongated mass measuring 1 x 6cm suggestive of hematoma secondary to cardiac rupture. In urgent cardiac surgery, the posterior wall between the left coronary artery branches was ruptured.

**Helicobacter Infections**

**drug therapy**

Reinfection rate after successful Helicobacter pylori eradication in children.
Najafi, Mehr; Sobhani, Mohammad; Khodadad, Ahmad; Farahmand, Fatemeh; Motamed, Farzaneh
Tehran University of Medical Sciences - Children's Medical Center - Department of Pediatrics
**Keywords:** Recurrence; Prospective Studies; Omeprazole-therapeutic use

**Abstract:** Reinfection rate of Helicobacter pylori after successful eradication is low in developed countries. This study was performed to determine the reinfection rate of H. pylori during a follow up period of 12 months in Iranian children. In this prospective study, children with H. pylori infection were treated with triple omeprazole based regimen. Patients with negative [13]C urea breath test [UBT] performed after 8 weeks of therapy, were followed up by the same test after 1 year. Thirty seven patients, aged 5 to 17 years, were studied. Among them 25 [67.5%] were boys. After eradication therapy of H. pylori, 34 patients had negative [13]C UBT. Reinfection occurred in 5 [14.7%] patients. Reappearance or continuing symptoms after treatment were associated with higher rate of recurrence [P=0.042]. Recurrence rate of H. pylori was high in our children. Successful eradication significantly decreased complaints and further symptoms. Follow up and reevaluation of patients is necessary especially when there are symptoms after eradication.
epidemiology

Helicobacter pylori infection in patients with dyspeptic symptoms having normal endoscopy.
Malik, Muhammad Farooq; Hussain, Tassawar; Khan, Muhammad Naeem; Mirza, Shakeel Ahmed; Farooq, Majida
E-mail: drmfamilik@yahoo.com
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 30-32 (20 ref.)

Keywords: Dyspepsia-microbiology; Endoscopy, Gastrointestinal

Abstract: To find out the frequency of Helicobacter pylori infection in the local population presenting with dyspeptic symptoms but having normal upper gastrointestinal endoscopic findings. This descriptive study was carried out in gastroenterology department of Military Hospital Rawalpindi. The study was conducted in the department of gastro intestinal of Military Hospital Rawalpindi from November 2004 to September 2005. Hundred cases of dyspepsia having normal upper gastrointestinal endoscopy were taken as study population. Although the gold standard for presence or absence of Helicobacter pylori infection is culture but in this study the diagnostic method used was histopathology of gastric antrum. The male and female ratio was 2:1. Majority of the patients were either 40 years of age or less, mean age being 40.52 [sd +/- 13.22]. The chief symptoms were pain epigastrium [46%] and upper abdominal discomfort [27%]. Helicobacter pylori gastritis was found in 51% of cases. We conclude that Helicobacter pylori infection is quite common in dyspeptic patients apparently having normal endoscopic gastric mucosal findings. Eradication therapy should be instituted in positive cases to avoid its long-term complications.

Helicobacter pylori

isolation and purification

Preparative sds-page electroelution for rapid purification of alkyl hydroperoxide reductase from helicobacterpylori.
Mohammadian, T.; Doosti, M.; Paknejad, M.; Siavoshi, F.; Massarrat, S.
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Islamic Azad University-Shahr-e-Qods Branch - Faculty of Basic Sciences - Department of Microbiology

Keywords: Helicobacter Infections-immunology; Helicobacter Infections-diagnosis; Peroxiredoxins

Abstract: Alkyl hydroperoxide reductase [AhpC] of Helicobacter pylori is considered as a diagnostic antigen. Therefore, this antigen can be used to detect H. pylori infection by stool immunoassays such as ELISA. The aim of this study was to simplify the AhpC protein purification procedures. For whole cell protein extraction, the bacterial cells were ruptured by octly-beta-D glucopyr anoside. The isolation and purification of AhpC protein were attempted by various techniques including ammonium sulfate precipitation, dialysis, preparative sodium dodecyl sulfate polyacrylamide gel electrophoresis [SDS-PAGE] and electroelution. A simple method was used for protein purification AhpC protein. One-dimensional preparative gel electrophoresis allows a single and short purification step; the high resolution capacity of this technique leads to a high level of purity of the protein. Moreover, it avoids contamination by other non-specific proteins which often appear during protein purification by column chromatography. The present method is simple, rapid and makes it possible to preparate AhpC from H. pylori.

Hemangioma, Cavernous

Bilateral orbital cavernous hemangiomas.
Aletaha, Maryam; Erfanian, Mohammad Reza; Bagheri, Abbas; Salour, Hossein; Abrishami, Mohammad Shahid Beheshti University of Medical Sciences - Labbafinejad Medical Center

Keywords: Orbit-pathology; Exophthalmos-etiology; Tomography, X-Ray Computed; Magnetic Resonance Imaging

Hepatectomy

Assessment of hepatic regeneration after partial hepatectomy in albino rats with induced bone barrow suppression.
Abdel Rahman, Gamal M.; Abdel Hamid, Aiaa El Din S.; El Shireef, Eman M.K.
Canal University - Faculty of Medicine - Departments of Anatomy
Suez Canal University Medical Journal 2009; 12 (1): 85-94 (23 ref.)

Keywords: Liver Regeneration; Immunohistochemistry; Antigens, CD34; Bone Marrow; Rats

Abstract: The liver has a remarkable capacity to regenerate after injury. Within a week after partial hepatectomy [PH]
hepatic mass is back essentially to what it was prior to surgery. Hematopoietic stem cells [HSCs] may contribute in the regeneration and the renewal capacity of hepatocytes. To investigate the origin of hepatocytes in liver regeneration whether from resident hepatic stem cells or from circulated HSCs after suppression of HSCs from bone marrow by Benzene This experimental study included 24 adult male albino rats. The studied animals were divided into 4 groups; first group [control group] was included 6 normal rats. No intervention was carried out to this group of rates. Second group [PH group] was included 6 rats in which 70% PH was done. Third group [Benzene group] was included 6 rats of in which bone marrow [BM] suppression was carried out by Benzene injection. Ten injections were performed subcutaneously in a period of 3 weeks for induction of BM suppression. Fourth group [Benzene+ PH group] was included 6 rats in which BM suppression was carried out as 3rd group. Seventy percent PH was then done to them. Cytological changes during regeneration were assessed in all groups by; the number of binucleate cells and the restored number of hepatocytes. Mitotic index was performed in the second and the fourth groups. The percent of regeneration was also calculated. Immunohistochemistry technique was used for detection of CD34+ markers in liver tissues by using anti CD34+ cells antibodies [this technique is done in group 4 only]. Our results found that mean weights of rats and assumed liver weights, there were no statistical significant differences between the studied groups. PH group had shown higher regeneration rate than Benzene+ PH group; the former showed a mean loss of 19% [±1-2.1% of regeneration] of their original weight by the end of the first week, and the latter a mean loss of 30% [±0.7% of regeneration]. Number of binucleate cells there was a significant difference in benzene treated group compared to control group [p<0.05]. Mitotic index there was significant higher mitotic index in partially hepatectomized after bone marrow suppression by benzene than partially hepatectomized group [p<0.05]. We had used CD34 [CDRE8] antibody in our. It is indicated that the hepatocytes can regenerate the liver and restore its original size. Hematopoietic stem cells may habitat the endothelial cells in the liver. Their role in hepatic regeneration doesn't appear early after partial hepatectomy it mobilized from bone marrow to the damaged liver ray in the liver tissues for long time (>7 days) then differentiate into non parynchematous liver tissues.

Assessment the effectiveness of hematopoietic growth factors on hepatic regeneration after partial hepatectomy in albino rats with induced bone marrow suppression.

Abdel Rahman, Gamal M.; Saad, Alaa E.; Fareed, Shimaa A.
Suez Canal University - Faculty of Medicine - Departments of Anatomy
Suez Canal University Medical Journal 2009; 12 (1): 67-76 (23 ref.)

Keywords: Liver Regeneration; Hematopoietic Cell Growth Factors-blood; Granulocyte Colony-Stimulating Factor; Immunohistochemistry; Antigens, CD34; Rats; Bone Marrow

Abstract: This study aimed to evaluate the effect of hematopoietic growth factors [erythropoietin and granulocyte colony stimulating factor] on liver regeneration after partial hepatectomy and bone marrow suppression of rats and to investigate the role of hematopoietic stem cells in liver regeneration by assessment of CD 34+ hematopoietic stem cells marker in hepatic tissues. 36 adult male albino rats were used in this study and were divided into six groups each of 6 rats: the 1st is the control group, the 2nd is bone marrow suppression group, 3rd is subjected to partial hepatectomy, 4th is subjected to bone marrow suppression by benzene, then 70% partial hepatectomy, 5th is subjected to 70% partial hepatectomy with injection of Eprex and Neupogen at time of partial hepatectomy, then daily for 5 days post hepatectomy and the 6th group is subjected to bone marrow suppression by benzene first then 70% partial hepatectomy with injection of Eprex and Neupogen daily for 5 days post hepatectomy. Histological evaluation and immunohistochemical study for CD34+ cells in the hepatic tissues were assessed. There were no regenerative changes in both control and benzene treated groups. There were little regenerative changes in the group of partial hepatectomy after benzene treatment but in the groups that were treated with the hematopoietic growth factors. These regenerative changes were increased especially in the treated group after partial hepatectomy than treated group after partial hepatectomy and bone marrow suppression. Immunostaining of CD34 expression as marker of HSCs in liver sections showed the following; the normal group, benzene treated group and partially hepatectomized group after benzene treatment showed no expression, but partially hepatectomized group show focally positive expression. Both groups treated with hematopoietic growth factors either after partial hepatectomy or after partial hepatectomy and bone marrow suppression by benzene show diffusely positive expression. The present study had shown that Erythropoietin and Granulocyte colony stimulating factors stimulate regenerative process occurred in the liver after partial hepatectomy only and after partial hepatectomy with bone marrow suppression either by endogenous mechanisms or by mobilization of hematopoietic stem cells.

Hepatitis C
genetics

Determination of hepatitis C genotypes and the viral titer distribution in children and adolescents with major thalassemia.
Shahraki, Touran; Shahraki, Mansour; Moghaddam, Esmail Sanei; Najafi, Mehri; Bahari, Ali
Zahedan University of Medical Sciences - Department of Pediatrics

Keywords: Genotype; Viral Load; beta-Thalassemia-virology; Cross-Sectional Studies; Polymerase Chain Reaction
Hepatitis C, Chronic

Expression of apoptotic markers BCL-2 and bax chronic hepatitis C virus patients.

Shehata, Osama H.; Farahat, Nahla M.; Muawia, Shaden
Alexandria University - Faculty of Medicine - Department of Internal Medicine

*Bulletin of Alexandria Faculty of Medicine* 2009; 45 (1): 85-94 (32 ref.)

**Keywords:** Apoptosis; Genes; bcl-2; bcl-Associated X Protein-blood; Polymerase Chain Reaction; Liver Function Tests

**Abstract:** Despite advances in the knowledge of the molecular virology of hepatitis C virus [HCV], the mechanisms of hepatocellular injury in HCV infection are not completely understood. The available reports are in favor of a destructive mechanism mediated by the host immune system rather than a direct cytopathic effect of the virus. Some viral infections influence the susceptibility of peripheral blood mononuclear cells [PBMC] to apoptosis. This could lead to insufficient antiviral immune response, persistent viral infection and disease progression. To evaluate the expression of apoptotic markers Bcl-2 and Bax in PBMC in chronic HCV patients. The study included three groups; group 1. Fifteen chronic HCV patients with biopsy-proven liver cirrhosis and ascites; among this group, five patients had cryoglobulinemia [group la] and the remaining ten patients had no cryoglobulinemia; group lb. Group 2: Fifteen chronic HCV patients without any suspected evidence of liver cirrhosis and group 3: Fifteen healthy subjects as a control group. All groups were age and sex matched and subjected to physical examination, abdominal ultrasound, laboratory investigations including: Complete blood count, liver and renal functions, Hepatitis B surface antigen, anti-HCV antibodies, serum cryoglobulins, detection of apoptotic markers Bcl-2 and Bax in peripheral blood lymphocytes, other necessary tests and in addition serum HCV RNA levels in the patient groups, by quantitative polymerase chain reaction [PCR] assay, and peritonealfluid analysis in group 1 patients. Group 1 chronic HCV patients [with cirrhosis and ascites] had a statistically significantly low Bcl-2 percentage expression in peripheral blood lymphocytes, a significantly high Bax expression and a significantly decreased Bcl-2/Bax ratio compared than healthy controls, with a statistically significant difference between group la [cryoglobulinemic] and group lb [non-cryoglobulinemic]. Group 2 patients had a statistically significantly increased Bcl-2 percentage expression, a significantly decreased Bax expression and a significantly increased Bcl-2/Bax ratio than controls. In chronic hepatitis C virus patients [group 1 and 2] Bcl-2 expression showed a statistically significant positive correlation with S. albumin, prothrombin activity, ALT and the Bcl-2/Bax ratio and a significantly negative correlation with S. total bilirubin, blood urea and the Bax expression. Bax expression showed a statistically significant positive correlation with S. total bilirubin, blood urea and S. creatinine and a significantly negative correlation with S. albumin, prothrombin activity, ALT and the Bcl-2/Bovc ratio. Bcl-2/Bax ratio showed a statistically significant positive correlation with S. albumin, prothrombin activity and ALT and a significantly negative correlation with S. total bilirubin, blood urea and S. creatinine. Chronic HCV patients exhibit a dysregulation of apoptosis, in the form of a down regulation of Bcl-2 expression together with an increased Bax expression and, a decreased Bcl-2/Bax ratio in peripheral blood lymphocytes, with the disease progression. This provides an insight into the pathogenesis of chronic HCV infection and may open new avenues in the management of the disease.
**Hernia, Diaphragmatic**

**chemically induced**

Congenital diaphragmatic hernia following usage of lithium carbonate; is lithium a teratogen?  
Hosseini, Seyed Hamzeh; Mousavi, Seyed Abdollah; Rashidi, Houman  
Psychiatric and Science Behavior Research Center  
**Keywords:** Lithium Carbonate-toxicity; Teratogens; Bipolar Disorder-drug therapy  
**Abstract:** Lithium is used mainly for the treatment of Bipolar Disorder [BD]. Case reports and several retrospective studies have demonstrated possible teratogenicity, but the data in different studies is inconclusive. The risk for cardiovascular malformations, particularly Ebstein's anomaly and other congenital abnormalities have been reported. A 25-year-old gravida 1, para 1 woman at 38 weeks of gestation was admitted for an elective caesarean section. She had a history of BP for which she was treated with lithium 600mg q12h in the first trimester of pregnancy. There was no familial history of birth defects, any antenatal infection or exposure to any other medications, alcohol, smoking, or X-rays. A baby boy [3500g] was born. After 2 to 3 hours respiratory distress clinical picture and chest radiograph suggested diagnosis of congenital diaphragmatic hernia. Repair of his diaphragm was preformed and patient discharged after 12 days. Lithium probably produces a defect in normal development of the diaphragm and may pose specific risk for an anomaly known as congenital diaphragmatic hernia [CDH].

**Hernia, Inguinal**

Frequency of contralateral patent processus vaginalis in children presenting with unilateral hernias.  
Rehan e Kibria; Safdar, Chaudhary Aqeel; Rehmani, Jamshed Ahmed  
Military Hospital  
*PAFMJ - Pakistan Armed Forces Medical Journal* 2010; 60 (1): 69-72 (20 ref.)  
**Keywords:** Groin-abnormalities; Inguinal Canal-abnormalities  
**Abstract:** To determine the frequency of contralateral patent processus vaginalis [PPV] in children who presented with unilateral inguinal hernias. A Descriptive Study. Department of Paediatric Surgery, Military Hospital Rawalpindi, from November 2006 to November 2007. All children under the age of 6 years and presenting with unilateral inguinal hernia were included. Those children who had a hernia on the contralateral side, or a history of swelling in the past, previous operations on the contralateral side, associated conditions like connective tissue disorders, ascites or VP shunts were also excluded. A standard Rehbein procedure was carried out for hernia repair on both sides. The results were analyzed and presented as mean [range] or mean +/- SD. There were 76 patients who underwent bilateral inguinal explorations. Males were 66 [86.8%] and 10 [10.8%] were female. Almost two thirds [n=52, 68.4%] were children younger than two years of age [mean age 1 year and 9 months]. There was a preponderance of left sided hernias [45 vs. 31, 59.2% vs. 40.8%]. The asymptomatic contralateral side exploration showed the presence of a definite PPV in 5 [6.6%] patients. The mean operating time was 35 + 10.4 minutes. The risk of contralateral hernia, in children presenting with one sided inguinal hernia is quite low. This does not justify routine exploration of the contralateral groin to prevent only a few clinical hernia developments later on.

**pathology**

Histological, immunohistochemical and quantitative analysis of collagen in patients with direct inguinal hernia.  
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Assiut University - Faculty of Medicine - Department of Histology  
**Keywords:** Immunohistochemistry; Collagen-ultrastructure; Microscopy, Electron  
**Abstract:** Abnormal collagen metabolism is thought to play an important role in the development of abdominal hernia. This is underlined by detection of altered collagen metabolism and structural changes of the tissues in patients with inguinal hernia. Was to study collagen synthesis defect in patients with direct inguinal hernia. Specimens were obtained from skin, transversalis fascia and sacs from forty two adult male patients with direct inguinal hernia and from 30 control adult patients without hernia during appendectomy. Sections from the specimens were stained with haematoxylin and eosin and Masson's trichrome stains, for light microscope. Furthermore, immunohistochemical study for collagen type III and histological quantitative analysis of total collagen were done. Other specimens were processed for electron microscopic study. Histological study of the tissues of patients with direct inguinal hernia revealed that the collagen fibers appeared loosely packed, widely separated and there was decrease in bundle formation. The immunohistochemical study showed an increase in type III collagen fibrils in comparison to that of controls. Also, there
was a significant decrease in the amount of total collagen content compared to the control group. The electron microscopic study revealed degenerative changes in the fibroblasts associated with loosely packed collagen fibrils. These changes were detected in all studied tissues. We concluded that the substitution of collagen type I by collagen type III that has less tensile strength predisposes to development of direct inguinal hernia. We also concluded that inguinal hernia may be a local manifestation of a systemic disorder of collagen metabolism.

**Hernia, Ventral**

**surgery**

Two years follow up in comparison between two methods hernioplasty in the treatment of ventral incisional hernia.

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Alexandria University - Faculty of Medicine - Department of General Surgery

**Bulletin of Alexandria Faculty of Medicine** 2009; 45 (1): 11-17 (28 ref.)

**Keywords:** Follow-Up Studies; Postoperative Complications; Recurrence; Treatment Outcome

**Abstract:** The incidence of incisional hernia increases; as 10% of all hernioplasties performed in any large hospital is for repair of incisional hernia. These intum stimulated the surgeon's effort to study the mechanisms of incisional hernia formation, how to prevent and how to repair this type of hernia. Was to compare and to fallow two different modalities of repair in ventral incisional hernia for detection of complications and recurrence. This study was conducted on 40 patients with ventral incisional hernia admitted to the General Surgery Department, Main Alexandria university Hospital. After proper investigation and informed consent, patients' were divided randomly into two groups and tabulated according to SWR [size, width and recurrence] classification of incisional hernia. Each group included 20 patients; group A patients were repaired by shoelace method and group B patients were repaired by Prolene mesh, follow up far two years was done for detection of local recurrence. The suction drains were removed earlier in shoelace repair [group A] than in mesh repair [group B]; the mean time was 6.75 days in group A versus 9 days in group B. The difference between the two groups was of statistical significance [t. test=2.72]. Also, the amount of drained fluid was less in the shoelace repair than that in mesh repair. This difference was statistically significant [t. test=2.06]. There was no statistically significant difference between the 2 groups as regards the postoperative wound infection [p=0.083]. After two years follow local recurrence was 20% in both groups; 5 cases in group A and 3 cases in group B with no statistical significance. Shoelace repair is a safe method to repair ventral incisional hernias, as it reconstructs and restores the functional anatomy of the abdominal wall, resulting in normal looking, soft, pliable and expandable abdomen with avoidance of the so called corsage feeling which usually occurs as a result of mesh repair where there is a sensation of tightness and restriction of abdominal wall mobility.

The use of intraperitoneal mersilene in the management of large ventral hernias.

Ghazal, Abdel Hamid A.

Alexandria University - Faculty of Medicine - Department of Surgery

**Bulletin of Alexandria Faculty of Medicine** 2009; 45 (1): 59-64 (30 ref.)

**Keywords:** Surgical Mesh; Follow-Up Studies

**Abstract:** Large ventral hernias usually require prostheses for a successful repair. Many prosthetic techniques have been described with extra-fascial, sub-fascial, and intra-peritoneal positioning. The present study was conducted to assess the value of Mersilene mesh intra-peritoneal placement in the management of large ventral hernias. This study included 15 female patients with large ventral hernias [myo-apponeurotic defect >/=10cm in diameter]. Their ages ranged from 30 to 62 years with a mean of 42.8 years. Twelve patients had an incisional hernia, following midline incision [n=6], right subcostal incision [n=3], paramedian incision [n=2], and Mc Burney's incision [n=1]. Three patients had a huge paraumblical hernia. All patients were clinically evaluated, investigated and had their respiratory function tests assessed both pre-and post-operatively. Hernias were repaired using the intra-peritoneal technique of mesh [30x30 cm Mersilene] positioning with placement of the greater omentum between the mesh and the bowel whenever possible. Patients were followed-up for a mean of 11.5 months [range 8-18 months]. The size of the hernia defect at surgery ranged from 10x13 cm to 22x25 cm with a mean of 13x14 cm. The mean hospital stay was 8.5 days [range 7-10 days]. Post-operatively, one patient developed superficial wound infection and another developed a seroma. Both resolved spontaneously on conservative measures. None of the patients developed post-operative respiratory distress. No recurrence was encountered during the follow-up period. The technique of intra-peritoneal Mersilene mesh fixation in the treatment of large ventral hernias a’ppeares to be simple, adequate and safe. It does not cause post-operative respiratory distress and does not necessitate dissection of the intermediate planes thus minimizing hematoma and seroma formation and the risk of sepsis.
**Histiocytoma, Malignant Fibrous**

**Malignant fibrous histiocytoma in a patient with history of treated retinoblastoma.**
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King Khaled Eye Specialist Hospital - Department of Pathology and Laboratory Medicine

**Keywords:** Retinoblastoma-surgery; Retinoblastoma-radiotherapy; Eye Enucleation

**Abstract:** Retinoblastoma is one of the most important childhood tumors with genetic implications and necessity for family counseling and long term follow up. We are presenting a 22 year-old Saudi male with history of bilateral retinoblastoma, who was initially treated by enucleation of his left eye. The histopathology showed a moderately differentiated tumor with vitreous seeding and he received chemotherapy in addition to radiotherapy to his right eye. He presented 20 years later with a right orbital tumor, frozen globe and proptosis. The excisional biopsy of his orbital mass revealed a spindle cell sarcoma with features of malignant fibrous histiocytoma. His clinical and radiological findings are presented together with the histopathologic features of his orbital tumor and brief review of secondary tumors in retinoblastoma patients.

**HIV Infections**

**epidemiology**

**Burden of HIV/AIDS infection before and during the civil war in Somalia.**
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Sapienza University of Rome - School of Medicine
**EMJH - Eastern Mediterranean Health Journal** 2010; 16 (8): 907-909 (22 ref.)

**Keywords:** Acquired Immunodeficiency Syndrome-epidemiology; War; Prevalence; Seroepidemiologic Studies

**Abstract:** Somalia has suffered a massive internal population displacement and exodus that began in 1988 and is still ongoing during the prolonged and intermittent civil war. This review looks at the burden of HIV infection in Somali and the impact of civil war on its epidemiology. Serosurveys have indicated that HIV was not present in Somalia before the civil war and to date Somalia has had an HIV prevalence markedly below that of its neighbours. However, due to the ongoing war HIV sentinel surveillance cannot reach most of the affected areas in Somalia and the current HIV infection problem may be greater than the figures indicate.

**transmission**

**Mother-to-child transmission of HIV: experience at a referral hospital in Saudi Arabia.**
Edathodu, Jameela; Halim, Magid M.; Bin Dahham, Muneera; Alrajhi, Abdulrahman A.
King Faisal Specialist Hospital and Research Centre - Section of Infectious Diseases - Department of Medicine
**Annals of Saudi Medicine** 2010; 30 (1): 15-17 (17 ref.)

**Keywords:** Mothers; Pregnant Women; HIV Infections-epidemiology

**Abstract:** The rate of mother-to-child transmission of human immunodeficiency virus [HIV] type 1 has been reported to be high in Saudi Arabia. We report the rate of such transmission among a cohort of HIV-infected women enrolled in an HIV program at a tertiary care facility in Riyadh. All HIV-infected women who became pregnant and delivered during their follow-up between January 1994 and June 2006 were included in this study. HIV viral load and CD4+ T-lymphocyte count near-term, the mode of delivery, and the HIV status of the newborn at 18 months were recorded. All women were counseled and managed according to the three-step PACTG 076 protocol. Of 68 HIV-infected women in the cohort, 31 had 40 pregnancies; one aborted at 13 weeks gestation. The mode of delivery was elective cesarean delivery in 28 pregnancies [70%] at 36 weeks gestation, and 11 [27.5%] had normal spontaneous vaginal delivery. The median CD4+ T-lymphocyte count near-term was 536 cells per cubic millimeter and the median viral load for 25 pregnancies was 1646 copies/ml, with only nine pregnancies [22.5%] having viral loads of more than 1000 copies/ml. Fourteen pregnancies [35%] had undetectable HIV prior to delivery. All patients were taking antiretroviral therapy during pregnancy and delivery. All 39 newborns tested negative for HIV infection at the age of 18 months; none of the newborns was breastfed. Contrary to previous local experience, diagnosis, management, and antiretroviral therapy almost eliminated mother-to-child transmission of HIV-1 in our patient population.
Hodgkin Disease

drug therapy

Clinical significance of platelet derived growth factor in hodgkin's disease and non hodgkin lymphoma.
El Defrawy, Mohamed; Neanaa, Hashem; Abdel Kareem, Elham; El Sorady, Manal; Seif, Marwa
Alexandria University - Faculty of Medicine - Department of Internal Medicine
Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 53-58 (23 ref.)

Keywords: Lymphoma, Non-Hodgkin; Platelet-Derived Growth Factor; Treatment Outcome

Abstract: Platelet-derived growth factor [PDGF] is one of the numerous proteins that regulate cell growth and division. It is a major mitogen for fibroblasts, smooth muscle cells and other cells. Many tumors have been shown to express PDGF and its cognate receptors, and in these, an autocrine stimulation of tumor cell growth may prevail. The aim of this work was to study PDGF levels in patients with Hodgkin's disease [HD] and non Hodgkin lymphoma [NHL], both before and after 3 cycles of chemotherapy and their relation to disease progression and response to treatment. This study was conducted on 20 lymphoma patients [gpI] including 7 patients with Hodgkin’s disease and 13 patients with non-Hodgkin lymphoma. 10 age and sex-matched normal healthy controls were also included in our study [gpII]. All patients were subjected to thorough history taking, clinical examination, routine laboratory investigations, lymph node biopsies to diagnose the lymphoma and staging of the lymphoma was done by radiological studies and bone marrow aspiration and trephine biopsies when needed. PDGF was measured in the serum of controls and patients before starting chemotherapy. This measurement was repeated after completion of 3 cycles of chemotherapy, together with assessment of response to chemotherapy, both clinically and radiologically. Serum PDGF levels in our lymphoma patients, both before and after 3 cycles of chemotherapy were significantly higher than the control group. No significant differences were noted between our ND and NHL patients as regards serum PDGF levels. There was a significant positive correlation between serum PDGF levels and serum LDH levels in our patients. Patients with advanced disease [stage III, IV] at presentation had significantly higher serum PDGF levels than patients with earlier stages [stage I, II]. Also, patients who showed a response to therapy had significantly lower pretreatment values of serum PDGF than patients with no response or with progressive disease. In conclusion, serum PDGF levels were significantly higher in lymphoma patients, compared to normal controls. Significant reduction in serum PDGF levels occurred in patients who responded to 3 cycles of chemotherapy. There was no significant difference between our HD and NHL patients as regards PDGF levels and there was a significant positive correlation between serum PDGF and serum LDH levels, both before and after treatment.

Homocysteine

toxicity

Immunohistochemical localization of alpha-fetoprotein in liver of adult male albino rats treated with homocysteine and trimethylglycine.
Ragaie, Alyaa; Ahmed, Mona
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Egyptian Journal of Histology [The] 2009; 32 (1): 91-100 (27 ref.)

Keywords: Liver-pathology; alpha-Fetoproteins; Immunohistochemistry; Protective Agents; Amino Acid Oxidoreductases; Rats; Male; Amino Acid Oxidoreductases

Abstract: Alpha-fetoprotein[AFP] has been reported to be associated with hepatocellular carcinoma. Homocysteine [HCY] could be one of the factors contributing in elevating alpha-fetoprotein level in the rat liver. We aimed at investigating the effect of HCY on rat liver and studying the protective effect of Trimethylglycine [TMG]. Adult albino rats were made hyperhomocysteinemic by oral supplementation of 0.6mg/kg homocysteine compared to control and trimethylglycine 6gm/kg treated groups for 6 weeks of experimental duration. Liver was prepared for histopathological, histochemical studies. AFP was investigated by immunohistochemical techniques. Higher reaction of alpha-fetoprotein was observed in rat liver of HCY treated group rather than the interacting group, compared to-ye reaction in both control and TMG treated groups. Histopathological results of HCY treated rats revealed liver hepatocytes with cytoplasmic vacuolation and pyknotic nuclei. Dilatation of the central viens with interstitial haemorrhage and amyloid deposition were also observed. Kupfer cells and lymphocytes were both apparently increased. These changes were improved markedly with TMG administration. Histochemical localization for carbohydrates showed decrease reaction in hepatocytes of HCY treated group rather than other groups. It is concluded that HCY induced severe hepatic alterations. These alterations, were less prominent in animals treated with TMG indicating that TMG can be possible hepatoprotector against HCYInduced toxicity.
Hydrogen Sulfide

toxicity

Hydrogen sulfide exposure in an adult male.
Doujaiji, Bassam; Al Tawfiq, Jaffar A.
Saudi Aramco Medical Services Organization - Dhahran Health Center - Internal Medicine Services Division
Annals of Saudi Medicine 2010; 30 (1): 76-80 (26 ref.)
Keywords: Occupational Exposure; Respiratory Insufficiency; Sepsis
Abstract: Hydrogen sulfide [H₂S] is responsible for many incidents of occupational toxic exposure, especially in the petroleum industry. The clinical effects of H₂S depend on its concentration and the duration of exposure. H₂S is immediately fatal when concentrations are over 500-1000 parts per million [ppm] but exposure to lower concentrations, such as 10-500 ppm, can cause various respiratory symptoms that range from rhinitis to acute respiratory failure. H₂S may also affect multiple organs, causing temporary or permanent derangements in the nervous, cardiovascular, renal, hepatic, and hematological systems. We present a case of occupational exposure to H₂S leading to multi-organ involvement, acute respiratory failure, organizing pneumonia, and shock resembling acute sepsis. The patient also developed mild obstructive and restrictive pulmonary disease and peripheral neuropathy.

Hyperbilirubinemia, Neonatal

drug therapy

The effect of clofibrate on decreasing serum bilirubin in healthy term neonates under home phototherapy.
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Guilan University of Medical Sciences - Department of Pediatrics
Keywords: Clofibrate-therapeutic use; Phototherapy; Bilirubin-blood; Treatment Outcome
Abstract: This study was designed to determine the effect of clofibrate on neonatal uncomplicated jaundice treated with home phototherapy. This clinical trial study was performed on 60 newborns with jaundice that received home phototherapy. Inclusion criteria were body weight between 2500 to 4000 gr, breastfed, I total serum bilirubin [TSB] between 14 to 20 mg/dl, aged over 72 hours. The neonates were randomly divided into two groups. All received home phototherapy. Group I received a single dose of 50 mg/kg clofibrate and the other group served as control group. Total serum bilirubin level was measured every 24 hours. Two groups were matched regarding weight, sex, age and first TSB. At 24 and 48 hours of treatment, the mean values of TSB in the clofibrate group were 13.72 [1.56], 9.5 [0.56] and in the control group 15.30 [1.44], 12.6 [1.44]. The results show that TSB was significantly decreased after 24 and 48 hours in clofibrate group [P<0.001]. The mean duration of phototherapy in group I was 72[0.0] hours and in the control group 76.80 [+/- 9.76] hours. The duration of phototherapy was significantly shorter in clofibrate group [P<0.001]. Clofibrate is effective for outpatients with neonatal hyperbilirubinemia who are under home phototherapy. Of course, further studies are needed for approved routine use of this drug in the treatment of neonatal jaundice.

Hypertension

chemically induced

Effect of concomitant administration of aspirin and losartan on endothelium dependent oxidative stress in dexamethasone-induced hypertensive rats.
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Keywords: Dexamethasone; Oxidative Stress; Malondialdehyde; Glutathione; Nitric Oxide; Catalase; Endothelium, Vascular; Aspirin-therapeutic use; Losartan-therapeutic use; Antioxidants; Drug Combinations; Rats
Abstract: Patients with hypertension [HT] usually take antihypertensive drugs and aspirin [acetylsalicylic acid; ASA]. However, few studies described the physiological effects of interaction of antihypertensive agents with aspirin. Therefore, this study aimed to investigate the effects of losartan [LOS] and/or ASA on dexamethasone [Dex]-induced HT in rats. Forty-five adult male albino rats [216 +/- 23 g] were used and equally divided into 5 groups [n=9];
Hypertension, Pregnancy-Induced

epidemiology

Hypertensive disorders of pregnancy: frequency, maternal and fetal outcomes.

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PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 113-118 (24 ref.)

Keywords: Hypertension, Pregnancy-Induced-complications; Pregnancy Outcome; Hypertension, Pregnancy-Induced-mortality; Retrospective Studies; Risk Factors; Perinatal Mortality

Abstract: To determine the frequency and distribution of different types of hypertensive disorders of pregnancy and to determine the impact of hypertensive disorders of pregnancy (HDP) on maternal and fetal outcomes. A descriptive retrospective study. The study was conducted in the department of Gynaecology and Obstetric of Isra University Hospital Hyderabad from January to December 2007. All the patients who were diagnosed to have hypertensive disorders of pregnancy during study period were categorized as group I. One hundred nineteen women delivered during the same period without hypertensive disorders of pregnancy were included as group II. The data regarding demographic and obstetrical parameters, associated risk factors, fetal and maternal complications were gathered from available data on medical record files. Total number of deliveries during the same period was obtained. Frequency of hypertensive disorders of pregnancy was calculated. Statistical analysis was performed by SPSS V11. Pearson's chi square and student's t test was used for comparison of variables in between two groups. P value < 0.05 was considered significant. The frequency of Hypertensive disorders of pregnancy was 8.9% in our study. The mean maternal age was 28.57 +/- 5.8 years and 26.56 +/- 5.0 years for group I and II respectively. Forty eight [76.2%] of group I patients were Unbooked for antenatal care, 37[58.7%] belonged to poor socioeconomic status and 82[45.1%] were multipara. Statistically significant difference was found for antenatal booking status [P. 0.04] and socioeconomic status [P. 0.01] and parity [P 0.04] in both groups. Twenty three [36.5%] patients from group I had past history of hypertensive disorders of pregnancy, while it was reported only by 8[6.7%] of group II patients. It was observed that women with HDP have strong family history of hypertension [P <0.001]. Regarding maternal outcome more patients from group I were shifted to ICU as compared to group II. Maternal mortality was significantly high in group I [P <0.001]. The mean gestational age was 35.29 +/- 2.6 weeks and 38.03 +/-1. 3 weeks in group I and II respectively. The mean birth weight of baby was 2.5 +/- 0.73 kilograms and 2.8 +/- 0.41kilograms in group I and II respectively. Statistically significant difference was observed in both groups for mean gestational age [P=0.001] and mean birth weight of baby [P<0.001]. Statistically significant difference was observed for Preterm birth. Still born, Neonatal death and admission of newborn in neonatal intensive care unit [P <0.001]. [P <0.001], [P <0.001], [P<0.001] respectively. The Perinatal mortality was 230/1000 births in group I, while it was 40/1000 in group II. Frequency of HDP is high in our set up. It is associated with high maternal and perinatal morbidity and mortality.
**Hyperthyroidism**

**Electrophysiological assessment of the visual pathway by visual evoked potentials and electoretinogram in thyrotoxic patients.**
El Barbry, Magdy Ali; Al Nahrawy, Osama Mohy Eldin; Abdel Naeim, Mohamed Abdo
Suez Canal University - Faculty of Medicine

**Suez Canal University Medical Journal** 2009; 12 (1): 153-156 (11 ref.)

**Keywords:** Electrophysiology; Evoked Potentials, Visual; Early Diagnosis

**Abstract:** In Graves' disease, the optic neuropathy [ON] is due to direct compression of the nerve and/or of its blood supply. To detect early changes in the visual functions of patients affected by ophthalmic Graves' disease [OGD] using electrophysiological tests [PVEPs and PERG]. Pattern visual evoked potentials [PVEPs] and pattern electoretinogram [PERG] were studied in 32 adult thyrotoxic patients. They were divided into 2 equal groups [a] and [b] including treated and untreated thyrotoxic patients. They were compared with a similar matched age and sex group of 12 healthy subjects. Both groups were subjected to medical and ophthalmic examination. PVEPs and PERG were studied in both groups using transient reversal pattern stimulation [73.2 minutes, high contrast black-white checks]. About 25% of both treated and untreated groups showed prolonged P100 latency of the VEPs. Latency of P100 wave of VEPs was significantly increased in both treated and untreated groups while the increased amplitude of P100 in both groups was statistically insignificant. There was significant correlation between latency of P100 in VEPs and the severity of Graves'ophthalmopathy. The electrofunctional tests were useful to detect small changes in the visual function of patients affected by initial stages of OGD. PVEPs appear to be a useful tool for early diagnosis of the optic nerve involvement in Graves'disease.

**Hypoparathyroidism**

**HDR syndrome [hypoparathyroidism, sensorineural deafness and renal disease] accompanied by hirschsprung disease.**
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Qom University of Medical Sciences - Clinical Research Development Center


**Keywords:** Hearing Loss, Sensorineural; Kidney Diseases; Syndrome; Hirschsprung Disease

**Abstract:** HDR syndrome [hypoparathyroidism, sensorineural deafness and renal disease] is an autosomal dominant condition; defined by the triad hypoparathyroidism, renal dysplasia and hearing loss. Hirschsprung [HSCR] disease is a variable congenital absence of ganglion cells of the enteric nervous system resulting in degrees of functional bowel obstruction. Rarer chromosomal anomalies are reported in combination with Hirschsprung disease like DiGeorge syndrome, mosaic trisomy 8, XXY chromosomal constitution, partial duplication of chromosome 2q, tetrasomy 9p, and 20p deletion. Here, we describe an 8 year-old girl with HDR syndrome accompanied by Hirschsprung disease. Although the association of Hirschsprung disease with chromosomal anomalies has been reported, according to our knowledge, this is the first report of associated HSCR with HDR syndrome.

**Hypoxia-Ischemia, Brain**

**diagnosis**

**Measurement of the urinary lactate/creatinine ratio for early diagnosis of the hypoxic-ischemic encephalopathy in newborns.**
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**Keywords:** Early Diagnosis; Lactic Acid-urine; Creatinine-urine; Sensitivity and Specificity; Predictive Value of Tests

**Abstract:** Hypoxic ischemic encephalopathy [HIE] is a major cause of permanent neurological disabilities. Perinatal asphyxia may induce neonatal mortality after birth or neurological impairment among survivors. There are no reliable methods for identifying infants at risk for this disorder. We measured the ratio of lactate/creatinine [L/C] in urine by proton nuclear magnetic resonance spectroscopy within 6 and 24 hours after birth in 50 normal infants and 50 infants with asphyxia who developed hypoxic-ischemic encephalopathy. The study was performed from September 2006 to May 2007. For statistical analysis, the SPSS software was used. Group comparisons were performed with chi-square and t-test. L/C ratio was 3.3 +/- 2 among asphyxiated neonates in the first six hours after birth which was 11 folds greater than in normal neonates [0.3 +/- 0.08, P=0.0001]. This ratio decreased to 1.5 +/- 0.55 for asphyxiated cases in the first 24 hours after birth, which was 5 folds greater than in control group [P=0.0001]. Asphyxiated neonates were subdivided into Group A with mild asphyxia and L/C ratio 2.5 +/- 0.5; Group B with moderate asphyxia and L/C ratio 4.2
+/- 1.5; and Group C with severe asphyxia and L/C ratio 3.4 +/- 3.3. The severity of asphyxia correlated with the greater L/C ratio among our cases and was significant [P=0.0007]. The sensitivity and specificity of L/C ratio in cut off point of 0.48, was 96.1% and 100% respectively. Measurement of the urinary L/C ratio soon after birth maybe a promising tool to identify asphyxiated neonates and also to predict the severity of asphyxia.

**Hysterectomy**

**adverse effects**

**Total versus subtotal abdominal hysterectomy influence on the urinary bladder function.**

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Alexandria University - Faculty of Medicine - Department of Obstetrics and Gynecology

**Bulletin of Alexandria Faculty of Medicine** 2009; 45 (1): 47-52 (29 ref.)

**Keywords:** Urinary Bladder; Urodynamics; Urological Manifestations; Follow-Up Studies

**Abstract:** To evaluate lower urinary tract functions in asymptomatic patients after subtotal abdominal hysterectomy and total abdominal hysterectomy. Forty multiparous premenopausal patients, subjected to subtotal and total abdominal hysterectomy for non malignant causes, and with no urinary complains, were divided into two groups: Group A: Twenty patients in whom subtotal abdominal hysterectomy was performed. Group B: Twenty patients in whom total abdominal hysterectomy was undertaken. Urodynamic data [cystometry, uroflowmetry, and abdominal detrusor leak point pressure] were collected preoperatively, at the 4[th] week, and at the 4[th] month postoperative in both groups. The mean age of group A and B were 42.58+/12.09 years and 43.9+/13.21 years respectively. The mean parity of group A and B were 2.01+/1.08 deliveries and 2.61 +/- 1.36 deliveries respectively. The mean body mass index of group A and B were 31.25+/12.85 kg/m[2] and 30.7+/13.01 kg/m[2] respectively. There were no statistically significant differences between both groups as regards the age, parity, and body mass index. Four weeks postoperative, patients of group A and B complain of frequency [in 20% and 40%], urgency [in 5% and 25%], urge incontinence [in 5% and 20%] respectively. After 4 months of the operation, frequency persisted in [10%and25%]; urgency persisted in [5% and 20%]. However, urge incontinence disappeared in the only one case of group A, which suffered from, while diminished in group B to 10% of the cases. Stress incontinence had never occurred in both studied groups postoperatively. No statistical significant differences were found in the bladder capacity and detrusor muscle activity preoperatively compared with follow up at 4 weeks and at 4 months postoperatively in both groups. Also, No statistical significant difference was found in residual urine volume preoperative compared with follow up at 4 weeks and at 4 months postoperatively of group A. However, significant postoperative increase in the residual urine volume is observed in patients of group [B]. Insignificant urinary complainsand functions changes, except, urgency and residual urine volume are significantly complicating total hysterectomy more than subtotal hysterectomy, with improvement occurred 4 months after the operation.

**Immunologic Deficiency Syndromes**

**history**

**History of primary immunodeficiency diseases in Iran.**

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**Keywords:** Immunologic Deficiency Syndromes-diagnosis; Allergy and Immunology-history; Fellowships and Scholarships; Immunoglobulins, Intravenous; Students, Medical; Research

**Abstract:** Pediatric immunology came into sight in the second half of 20[th] century, when pediatricians and basic immunologists began to give attention to diagnosis and treatment of children with primary immunodeficiency diseases [PIDs]. Understanding the genetic and mechanistic basis of PIDs provides unique insight into the functioning of the immune system. By progress in basic and clinical immunology, many infrastructural organizations and academic centers have been established in many countries worldwide to focus on training and research on the immune system and related disorders. Along with progress in basic and clinical immunology in the world, pediatric immunology had a good progress in Iran during the last 33-year period. Now, patients with PIDs can benefit from multidisciplinary comprehensive care, which is provided by clinical immunologists in collaboration with other specialists. Patients with history of recurrent and/or chronic infections suggestive of PIDs are evaluated by standard and research-based testing and receive appropriate treatment. The progress in PIDs can be described in three periods. Development of training program for clinical fellowship in allergy and immunology, multidisciplinary and inter national collaborative projects, primary immunodeficiency diseases textbooks, meetings on immunodeficiency disorders, improvement in diagnosis and treatment, and construction of Iranian primary immunodeficiency association. Students’ research group for immunodeficiencies, Iranian primary immunodeficiency registry, and the immunological societies and centers were the main activities on PIDs during these years. In this article, we review the growth of modern pediatric immunology and PIDs status in Iran.
Infant, Newborn

Cervical mass following carotid attempt at interventional repair of aortic coarctation: a case report.
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Keywords: Aortic Coarctation-therapy; Hematoma; Neck-pathology; Carotid Artery Injuries; Echocardiography
Abstract: A 4-month-old boy was admitted to our hospital following an unsuccessful attempt at interventional repair of aortic coarctation via the right carotid artery, which seemed to have given rise to the formation and growth of a cervical mass overlying the entry site. Despite the initial anticipation of difficulty during intubation due to the pressure effect of the mass, anesthesia progressed uneventfully, the mass, which was a hematoma, was evacuated, and the coarctation was repaired. The patient was discharged after the operation. At three weeks' follow-up, there was no significant lesion in the neck and transthoracic echocardiography demonstrated no residual coarctation.

Influenza A Virus, H1N1 Subtype

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Keywords: Hospitals, University; Risk Assessment; Reverse Transcriptase Polymerase Chain Reaction; Age Distribution; Vaccination
Abstract: A national plan of management for flu-like illnesses was developed by the Saudi Ministry of Health after the first outbreak in Saudi Arabia in June. We describe the clinical presentation of the H1N1 cases attending King Khalid University Hospital [KKUH] between July through September 2009 and identify the high-risk age groups. All patients presenting with influenza-like illnesses [ILI] in the H1N1 clinics during the specified period were clinically examined and tested using reverse transcription polymerase chain reaction [RT-PCR]. Those who were clinically diagnosed and confirmed positive for novel influenza A [H1N1] were included in the study. Over a 6-week period, 117 cases of laboratory-confirmed cases were reported in KKUH with a mean [SD] age of 19.6 [16.7] years, of whom 72 [62.1%] were males. Most reported cases were Saudis [n=99, 85.3%]; 94 [81%] had no travel history outside the country; 100 [86.2%] had had no contact with an H1N1-identified patient; 33% were aged 5-14 years and 28.4% were aged 15-29 years. The most commonly reported symptoms were fever in 99 [85.3%], cough in 9 [81%], runny nose [33.6%] and sore throat [21.3%]. All 117 cases were confirmed positive using real time RT-PCR testing. Thirty-one cases [26%] were admitted and 22 of those [71%] recovered after receiving oseltamivir. Two deaths were attributed to the 2009 pandemic. One patient died of chronic pulmonary disease. The other cause of death was unknown. These findings indicate indigenous influenza A [H1N1] transmission, and confirm the urgent need for prevention strategies which specifically target children and young adults, who appear to have a higher risk of infection and hospitalization. Such measures include immunization, improved personal hygiene, and increased ventilation in habitations.

The first influenza pandemic of the 21[st] century.
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Annals of Saudi Medicine 2010; 30 (1): 1-10 (73 ref.)
Keywords: Disease Outbreaks; World Health Organization; Vaccination; Influenza, Human-history
Abstract: The 2009 H1N1 influenza virus [formerly known as swine flu] first appeared in Mexico and the United States in March and April 2009 and has swept the globe with unprecedented speed as a result of airline travel. On June 11, 2009, the World Health Organization raised its pandemic level to the highest level, Phase 6, indicating widespread community transmission on at least two continents. The 2009 H1N1 virus contains a unique combination of gene segments from human, swine and avian influenza A viruses. Children and young adults appear to be the most affected, perhaps reflecting protection in the elderly owing to exposure to H1N1 strains before 1957. Most clinical disease is relatively mild but complications leading to hospitalization, with the need for intensive care, can occur, especially in very young children, during pregnancy, in morbid obesity, and in those with underlying medical conditions such as chronic lung and cardiac diseases, diabetes, and immunosuppression. Bacterial co-infection has played a significant role in fatal cases. The case of fatality has been estimated at around 0.4%. Mathematical modeling suggests that the effect of novel influenza virus can be reduced by immunization, but the question remains: can we produce enough H1N1 vaccine to beat the pandemic?
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Ministry of Health - Field Epidemiology Program
Annals of Saudi Medicine 2010; 30 (1): 11-14 (18 ref.)
Keywords: Disease Outbreaks; World Health Organization; Age Distribution; Questionnaires
Abstract: In April 2009, the World Health Organization [WHO] declared pandemic influenza A [H1N1] "public health emergency of international concern". On June 11, 2009, WHO raised the pandemic alert level to phase 6, indicating a global pandemic. By December 2009, more than 208 countries and territories had reported swine flu cases. The descriptive epidemiology of the first reported 100 cases of this virus in Saudi Arabia are summarized in this report. Data were collected from 1 June to 3 July, 2009 using a predesigned questionnaire. Questionnaires were filled by Field Epidemiology Training Program residents. Data for the first 100 complete cases of confirmed pandemic influenza A [H1N1] were compiled and analyzed. The age of reported cases was in the range of 1 to 56 years. The highest percentage of cases was in the age group of 20 to 30 years followed by the age group of 1 to 10 years. Females represented 55% of the cases; imported cases represented 47%, 58% of whom had come via the King Khaled Airport. The most common nationalities most were from Saudi Arabia and the Philippines. The main symptoms were fever [56%], cough [54%], and sore throat and the number of cases was seen to peak from the 27 to 29 June. Pandemic influenza A [H1N1] is still a threat to Saudi Arabia. Thus, comprehensive and effective measures for surveillance and prevention of the disease are needed to control its spread.

Infratentorial Neoplasms

Histological findings of posterior fossa tumors in children.
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Lady Reading Hospital - Department of Neuro Surgery
JPMI - Journal of Postgraduate Medical Institute 2010; 24 (1): 31-35 (17 ref.)
Keywords: Magnetic Resonance Imaging; Tomography, X-Ray Computed; Medulloblastoma-epidemiology; Astrocytoma-epidemiology; Ependymoma-epidemiology; Age Distribution
Abstract: To find out different histopathological types of posterior fossa tumors in children. This Descriptive study was carried out in Department of Neuro surgery Govt. Lady Reading Hospital Peshawar from June 2003 to May 2008. All patients with posterior fossa tumors under 14 years were included in the study. Patient with brainstem glioma, posterior fossa abscesses and pineal tumors were excluded. A total of 117 patients were included. There were 80 male and 37 female with sex ratio of 2.1:1 with age range from 6 months to 14 years with mean age of 8.9 years and SD + 5.4. Computerized Axial Tomography / Magnetic Resonance Imaging of the brain were done for establishing diagnosis. Different surgical procedures for tumor removal were performed and specimen was sent for histopathological study in all operative cases. Out of 117 patients Medulloblastoma was seen in 38 [32.7%], Ependymoma in 23 [19.65%] Astrocytoma in 25 [21.36%], Hemangiblastoma in 19 [16.23%] Tuberculoma in 4 [3.41%] Meningioma in 2 [1.7%] and dermoid and epidermoid cyst in 3 cases each [2.56%]. Medulloblastoma was seen commonly between 6-10 years in 22 [18.8%] patients. Astrocytoma between 6 -10 years in 12 [10.25%] patients. Ependymoma is common below 5 years in 17 [14.5%] patients. Hemangiblastoma between 6-10 years in 15 [12.82%] patients, tuberculoma in 3 [2.56%] patients in 6 -10 years of age. Medulloblastoma and Pilocytic Astrocytoma and Hemangio blastoma are common tumors between 6-10 years of age and Ependymoma is common below 5 years. Tuberculoma is also tumor mimicking condition occurring in posterior fossa.

Persistent postoperative hypertension following posterior fossa surgery. a case report.
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All India Institute of Medical Sciences - Neurosciences Center - Department of Neuroanaesthesiology
Middle East Journal of Anesthesiology 2010; 20 (4): 571-572 (3 ref.)
Keywords: Hypertension-etiology; Postoperative Complications
Abstract: We report a case of a 20 month old male child who underwent surgery for posterior fossa tumor. Post operatively the child developed persistent hypertension. No active intervention was done as it could have compromised cerebral perfusion pressure. The possible cause is discussed.
Interleukin-8
diagnostic use

Serum interleukin 8 level as a diagnostic marker in late neonatal sepsis.
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Keywords: Interleukin-8-blood; Sepsis-blood; Prospective Studies; Case-Control Studies; Sensitivity and Specificity; Predictive Value of Tests; C-Reactive Protein-diagnostic use
Abstract: Late-onset sepsis is responsible for high morbidity and mortality in newborn infants in the world and in particular in developing countries. In this study, we evaluated whether clinical characteristics, laboratory parameters and measurements of serum interleukin-8 [IL-8] are able to discriminate between late neonatal sepsis and normal baby. This was a prospective [case-control] study conducted between March 2007 and April 2008, at the neonatal intensive care unit, Ghaem Hospital, Mashhad, Iran. The study comprised 93 neonates >/=72 hours of life. The infants were categorized in two groups based on the clinical presentation, and biochemical markers including complete blood count, C-reactive protein [CRP] and blood culture: 1] Control group including 42 infants with routine screening and 2] Case group consisting of 38 infants with definitive infection [positive blood and/or cerebrospinal fluid culture] or clinical sepsis [clinical and laboratory signs of infection without positive blood or CSF culture]. Receiver-operating characteristic curves were used for the determination of thresholds for the infection group versus healthy neonate group. Eighty infants were enrolled in this study. IL-8 and CRP decreased in order of definitive infection, clinical sepsis and healthy subjects respectively [P<0.001]. Sensitivity, specificity, positive predictive value, negative predictive value for serum levels were 0.95, 0.1, 0.97, 0.1 for IL-8 and 0.83, 0.86, 0.83, 0.69 for CRP respectively [cut-off point for IL-8 >60pg/ml and for CRP>6mg/dl]. IL-8 may be a valid and early predictive marker of neonatal infection. Also, IL-8 is associated with seventy of infection.

Intestinal Obstruction
mortality

Mortality determinants among neonates with intestinal obstruction at King Hussein medical center, Amman, Jordan.
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Suez Canal University Medical Journal 2009; 12 (1): 163-166 (16 ref.)
Keywords: Infant, Newborn; Postoperative Complications; Reoperation; Sepsis
Abstract: Neonatal intestinal obstruction [NIO] is a common cause of mortality. This study focused on the causes of mortality in patients with MO at the neonatal intensive care unit, King Hussein Medical Center, Amman, Jordan. Retrospectively we reviewed records of all cases of MO managed at the neonatal intensive care unit, King Hussein Medical Center [Tertiary referral center] , Amman, Jordan, between 1/1/2008 and 31/5/2009, and the blamed factors that may cause the mortality were analyzed. All considerations for optimal neonatal surgical management were utilized. One hundred twenty sex neonates with intestinal obstruction were managed during the study period. Eighty-four were males and 42 were females [M/F=2/1]. The majority of the patients [90], [71.4%] presented within the first week of life. Intestinal Atresia constituted 57.1% of the causes of Nb. Other causes included Hirschsprung's disease, anorectal malformations and intestinal malrotation with midgut volvulus. There were 36 deaths, with a mortality rate of 28.6%. Sepsis [22 neonates], reoperation [4], postoperative bleeding [4] and associated congenital anomalies [6] mainly congenital heart diseases were significant determinants of mortality. NIO is associated with significant mortality in our centre. Sepsis, repeat surgery, postoperative bleeding and associated congenital anomalies were the major determinants that contributed to mortality in NIO.
**Irritable Bowel Syndrome**

**pathology**

Correspondence, pathologies in irritable bowel syndrome? Pathologies in irritable bowel syndrome?
Azeemi, Mian Mukhtar ill Haq
Lady Reading Hospital - Department of Psychiatry
JPMI - Journal of Postgraduate Medical Institute 2010; 24 (1): 79-80 (7 ref.)
**Keywords:** Sex Distribution; Anxiety; Depression; Irritable Bowel Syndrome-psychology; Prevalence

**Keratomileusis, Laser In Situ**

Laser in situ keratomileusis for treated myopic anisometropic amblyopia in children.
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**Keywords:** Cornea-surgery; Amblyopia-surgery; Amblyopia-therapy; Visual Acuity
**Abstract:** To evaluate the effects of laser in situ keratomileusis [LASIK] in decreasing myopic anisometropia in children with spectacles or contact lens intolerance and its validity in facilitating treatment of resultant myopic anisometropic amblyopia. LASIK was performed in 18 eyes of 18 children having myopic anisometropic amblyopia not successfully treated with the standard amblyopia treatment for 6 months. Children were followed up at 1 week, 1, 2, 6, 12, 18 and 24 months. Postoperative amblyopia therapy was continued with occlusion of the dominant eye for 6 h daily for the first 3 months and then for 4 h per day as long as possible. The mean spherical equivalent refraction in the operated eye had reduced significantly from -9.08 +/- 1.86D preoperatively to -0.97 +/- 1.16D at 2 years postoperatively. The mean spherical equivalent in the non-operated fellow eye was -1.0 +/- 1.15D preoperatively and -2.50 +/- 1.15D at 2 years. The mean spherical equivalent myopic anisometropia was -7.75 +/- 2.25D preoperatively and -0.50 +/- 0.3ID at 2 years, representing a 93.5% reduction in myopic anisometropia. The mean regression value was -2.28 +/- 1.62D, however, 18 eyes [72%] were within 3.O.D of the fellow eye. The mean BCVA was significantly improved from 0.72 +/- 0.13 preoperatively to 0.47 +/- 0.17 by 2 years after LASIK with amblyopia treatment. LASIK is a safe and effective alternative method for correcting myopic anisometropic amblyopia, especially in children with spectacles or contact lens intolerance, with more better visual acuity and binocular vision.

**Kidney**

**pathology**

Fibronectin and interleukin-18 renal ischemia with and without reperfusion rats.
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Alexandria University - Faculty of Medicine - Department of Physiology
Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 253-260 (43 ref.)
**Keywords:** Ischemia; Reperfusion Injury; Fibronectins; Interleukin-8; Rats
**Abstract:** Ischemia reperfusion is a common leading cause to acute renal failure. Cellular mechanisms include cell adhesion, cell infiltration and generation of oxygen free radicals, and inflammatory cytokine production have been identified, however, the exact causes remain unclear. The aim of the present study was to investigate the role of fibronectin [FN], interleukin-18 [IL-18] and serum ferritin in a vivo model of unilateral ischemic and/or reperfused kidney in the rat. In addition, the effects of different durations of ischemia, with or without reperfusion on the previous parameters were assessed. This study was carried out on 40 male albino rats divided into 4 groups [10 rats/each]. They were group I: rats were subjected to renal ischemia for 40 minutes without reperfusion; group II: rats were subjected to permanent renal ischemia for 24 hour; group III: rats were subjected to renal ischemia for 40 minutes followed by 24 hour of reperfusion and group IV: sham operated rats. Renal ischemia was induced by clamping the renal artery and vein for 40 or 24 hour mm whereas the contralateral kidney is left intact. At the determined time of sacrifice the blood was collected by cardiac puncture and serum was separated. Both kidneys [left postschematic and right contralateral] were excised and frozen at-80 °Cfor biochemistry. The kidneys were homogenized and used for estimation of fibronectin and IL-18 by ELISA and serum samples were used to estimate the ferritin by ELISA. The mean value of FN and IL-18 was peaked at 24 h after permanent ischemia in group II, it was significantly high compared with the other studied groups. Forty minutes of ischemia without reperfusion was associated with increased level of FN and IL-18 compared with 40 minutes ischemia with subsequent reperfusion. However, the difference was not statistically significant. Forty minutes ischemia without reperfusion in group I was associated with the highest
significant increase in serum ferritin level. In conclusion, ischemia with or without reperfusion was associated with upregulation of the detected extracellular matrix proteins; specifically FN as well as the detected cytokine; IL-18 from renal tissues. However, the highest increase in these two parameters was observed in permanent ischemia [for 24h] rather than transient ischemia [40 minutes]. The elevated level of FN in permanent ischemia explains its possible role in the regeneration of the damaged kidney and/or fibrosis. Reperfusion has no prominent effect on renal FN and IL-18 levels. Thus, time of ischemia may be the most important determinant for higher FN and 11-18. Moreover, this study had showed that serum ferritin increased significantly in transient ischemia without reperfusion which indicates its role as an acute phase reactant in a response to ischemia.

**Labor Pain**

**therapy**

**Labor analgesia in preeclampsia: remifentanil patient controlled intravenous analgesia versus epidural analgesia.**

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Middle East Journal of Anesthesiology 2010; 20 (4): 539-545 (32 ref.)

**Keywords:** Analgesia, Epidural; Pain Measurement; Pre-Eclampsia; Piperidines; Analgesia, Patient-Controlled; Treatment Outcome

**Abstract:** Epidural analgesia is considered to be the preferred method of labor analgesia in preeclamptic patients. Systemic opioids are another good effective, easy to administer alternative but may cause maternal and fetal respiratory depression. Remifentanil's rapid onset and offset of effects, should make it an ideal drug for the intermittent painful contraction during labor. 30 preeclamptic patients were randomly assigned to one of two equal groups; Epidural Group: received epidural analgesia according to a standardized protocol using bupivacaine plus fentanyl. Remifentanil Group: PCA was set up to deliver remifentanil 0.5 micro g/kg as a loading bolus infused over 20 seconds, lockout time of 5 minutes, PCA bolus of 0.25 micro g/kg, continuous background infusion of 0.05 micro g/kg/min, and maximum dose is 3 mg in 4 hours. Women were advised to start the PCA bolus when they feel the signs of a coming uterine contraction. All women demonstrated a significant decrease in VAS score in the first hour after administration of analgesia [P<0.05]. Analgesic quality as regard Visual Analog Pain Scores, sedation score, and post-delivery patient satisfaction in both groups, are comparable [P>0.05]. PCA remifentanil infusion until time of delivery produce no observable maternal, fetal or neonatal side effects [P<0.05]. PCA intravenous remifentanil is an effective option for pain relief with minimal maternal and neonatal side effects in labor for preeclamptic patients with contraindications to epidural analgesia or requesting opioid analgesia.

**Labor, Induced**

**methods**


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**Keywords:** Catheterization; Dinoprostone-therapeutic use; Pessaries; Treatment Outcome

**Abstract:** To see the safety and efficacy of cervical Foley catheter insertion in post date pregnancy, for induction of labour, as compared to prostaglandin E[2] vaginal pessary. A comparative, cohort study. The study was conducted in the department of obst / Gynae MH Rawalpindi from Sep 2003 to Sep 2004. There were hundred subjects in each group including both primigravidas and multigravdas upto para 3 with singleton pregnancy, postdates 6-10 days, age 20-30 years, Bishop score 3-6 with adequate pelvis. Sampling technique was convenient, non probability. In primigravidas improvement in Bishop Score after 06 hours was similar in both Group A [Foley catheter] [32%] and Group B [Prostin E[2]] [30%]. While in multigravidas improvement in Bishop Score was more in Foley catheter in Group A [36%] as compared to Group B [24%]. The induction delivery interval was 12 hours in 69% cases of Group A and 67% cases of Group B [p<.001]. In Group A 80% patients were delivered by spontaneous vaginal delivery, 9% were delivered by lower segment cesarian section [LSCS]. Where as in Group B 76% patients were delivered by spontaneous vaginal delivery, 11% were delivered by lower segment cesarian section [LSCS]. There were 4 cases of non progress of labour, 4 cases of fetal distress, 2 cases of meconium aspiration and 1 case of uterine hyperfunction in Group A. However there were 5 cases of fetal distress, 3 cases of meconium aspiration, 3 cases of uterine hyperfunction and 1 case of uterine rupture in Group B. A good cervical preparation was achieved with Foley catheter
by mechanical effect of the distended balloon and by release of endogenous PGE\[2\] comparable to extra amniotic PGE\[2\]. The readily available Foley catheter was inexpensive and there were no maternal systemic side effects.

**Lacrimal Apparatus**

**anatomy and histology**

The role of hormone replacement therapy on structural integrity of lacrimal gland in ovariectomized albino rats [histological and immunohistochemical study].

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**Egyptian Journal of Histology [The]** 2009; 32 (1): 66-80 (56 ref.)

**Keywords:** Ovariectomy; Rats; Lacrimal Apparatus-drug effects; Hormone Replacement Therapy; Immunohistochemistry; Dry Eye Syndromes

**Abstract:** Sex steroid hormones are important regulators of lacrimal gland functions. In addition, dry eye syndrome is common in menopausal women. This work was conducted to demonstrate the role of hormone replacement therapy [HRT] on structural integrity of the lacrimal gland of ovariectomized rats. Thirty six adult female albino rats, were used in the present work divided into three equal groups: Group I [control] and group II [bilaterally ovariectomized rats] sacrificed 1 and 12 weeks following ovariectomy. The third group contained ovariectomized rats receiving HRT was subdivided into: Subgroup lila received estradiol benzoate and subgroup III b received androgen. Small pieces of the gland were obtained and processed for different histological and immunohistochernical stains. One week after ovariectomy the connective tissue septa was thickened. Collagen fibers were abundant with extensive cellular infiltration around dilated ducts and congested blood vessels. Some acinar cells were vacuolated and others contained darkly stained nuclei. Twelve weeks after ovariectomy, the acini were lined with low cuboidal cells and their lumina were widened with increased collagen fibers inbetween. In hormone treated group, the gland nearly regained its normal architecture, however few acinar cell nuclei showed hyperchromatism. In estrogen treated group some interlobular septa were widened. Concerning firs inmunoreactivity, in group 11, the acinar cell nuclei showed strong positive reaction in the first week then the reaction was negative after 12 weeks. The immune reaction for ERs remained negative after the HRT. One week after ovariectomy, the immune reaction for bcl-2 was weak in the cytoplasm of ductal cells and moderate in interstitial cells. After 12 weeks, they became immune negative and after estrogen and androgen treatment marked rise in their bcl-2 immune reactivity was observed. Sex hormone balance was proved to be a crucial factor in maintaining structural and functional integrity of lacrimal gland. So, future clinical therapeutic strategies based on estrogen and/or androgen replacement therapy for aged women and patients with premature ovarian failure could help in preventing or curing dry eye syndrome associated with lacrimal deficiency is advised.

**Laryngeal Masks**

Association between factors predicting and assessing the airway and use of intubating laryngeal mask airway.

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**Middle East Journal of Anesthesiology** 2010; 20 (4): 553-558 (22 ref.)

**Keywords:** Intubation-methods; Intubation-instrumentation

**Abstract:** The Intubating Laryngeal Mask Airway Fastrach(TM) [ILMA] has been used with success in difficult intubation cases. The purpose of this study is to evaluate the effect of mouth opening, Mallampati classification, thyromental distance and Cormack-Lehane Grade, on the ease of ILMA use. Eighty one patients ASA I-II, were assessed preoperatively for mouth opening, Mallampati classification and thyromental distance. After induction with propofol and rocuronium, the first investigator recorded Cormack-Lehane Grade by direct laryngoscopy. Subsequently an appropriate size ILMA was inserted by the second investigator and correct placement was confirmed by adequate ventilation and normal capnogram. A maximum of three ILMA insertion attempts were allowed and the number was recorded. Then blind intubation was attempted and classified as follows, according to Intubation Difficulty Grade [IDG]: IDG-1: intubation succeeded: at first attempt requiring no or minor ILMA manipulations. IDG-2: intubation succeeded at second attempt requiring major ILMA manipulations or size change. IDG-3: intubation failed after the second attempt or oesophageal intubation occurred at either attempt. In failure of the technique direct laryngoscopy was the alternative approach. Success rates in insertion of ILMA and in blind intubation were 100% and 92.6% respectively. No difference was found between Cormack-Lehane Grade I-II and II-IV or Mallampati classification and number of ILMA insertion attempts or IDG. There was also no correlation between mouth opening, or thyromental distance and number of ILMA insertion attempts or IDG. It is concluded that easiness of ILMA use is irrelevant to mouth opening, thyromental distance, Mallampati classification or Cormack-Lehane Grade.
Comparing two methods of LMA insertion; classic versus simplified [airway].
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Middle East Journal of Anesthesiology 2010; 20 (4): 509-514 (15 ref.)
Keywords: Intubation-methods; Intubation-adverse effects
Abstract: The aim of this study is to compare two methods of LMA insertion, "classic" versus "simplified" [AIRWAY], due to factors such as: time to insertion, number of attempts, blood stained LMA, air leak around LMA, and gastric inflation. The word "AIRWAY" refers to the similarity of this method to oropharyngeal airway insertion. One hundred ASA class I and II patients elected for lower limb orthopedic surgery but without any head and face injury or head and neck abnormality, having their tooth intact, were selected and divided to two groups of fifty; classic and simplified. In the classic group, the index finger used as a guide, pushes the back of LMA towards the hard palate, inserting it into the pharynx till a resistance is felt and the LMA is then fixed in its place. In the AIRWAY group, the deflated LMA is entered into the mouth in a 180 degree inside-out position compared to the classic method without using fingers and is proceeded until it enters the pharynx [sudden loss of resistance] and then returned 180 degree back to its normal position to be fixed in the right place. The attempt numbers, time to insertion, complications such as laryngospasm, blood stained LMA and gastric inflation is being investigated. Demographic data such as age, sex and ASA class, demonstrate no meaningful statistic difference between the two groups. Successful first attempt in AIRWAY group [86%] had no meaningful statistic difference with the classic group [80%] [p>0.05]. The overall success rate in LMA insertion [within two attempts] was 100% and 82% in AIRWAY and classic groups respectively [p>0.05] and 11 patients with failed insertion attempts, were excluded from the study. The time for successful insertion was meaningfully less in the AIRWAY group compared to the classic one [p<0.0001].In the classic group 32% of LMAs became blood stained compared to 16% in the AIRWAY group, which the difference was not meaningful. No other complications such as laryngospasm or oxygen desaturation occurred. Comparison of the whole advantages and disadvantages of both groups, mention that, by putting the LMA insertion time together with the low complication rates, the AIRWAY method can be assumed as a preferred simplified method with few complications for inserting LMA.

Lead Poisoning

epidemiology

Occupational lead poisoning in workers of traditional tile factories in Mashhad, northeast of Iran.
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Medical Toxicology Research Centre - Imam Reza Hospital
Keywords: Lead Poisoning, Nervous System, Adult; Occupational Exposure; Industry; Lead Poisoning-comlications; Lipids-blood; Lead Poisoning-blood
Abstract: Occupational lead poisoning is a health problem in Iran. It has not previously been studied in traditional tile makers. To determine the prevalence of lead poisoning and its complications in traditional tile workers in Mashhad, Northwest of Iran, We visited workers in two traditional tile factories and collected data by direct history taking and physical examination. Blood and urine lead concentrations were measured by heated graphite atomization technique. Overall, 108 men with mean +/- SD age of 37 +/- 7.8 years were studied. The mean +/- SD length of daily lead exposure was 9.8 +/- 6 years. The mean +/- SD blood lead concentration was 520.5 +/- 323, 2 M9/L. The main objective clinical findings were the presence of lead line [64.8%], peripheral neuropathy of the upper extremities [37%], depressed deep tendon reflexes in the upper extremities [25.7%], tremor [23.3%], peripheral neuropathy of the lower extremities [17%] and abdominal tenderness [15.1%]. The subjective findings were mainly attributed to the central nervous system and included loss of memory [57%], moodiness [56.1%], agitation [47.7%], drowsiness [36.4%] and headache [29.9%]. There was no statistically significant correlation between the blood lead concentration and glomerular filtration rate. However, there were significant correlations between the blood lead concentration and each of the urine lead concentration [p<0.001], diastolic blood pressure [p=0.04], serum triglyceride level [p=0.043], high density lipoprotein level [p=0.012], and basophilic stippling [p=0.048]. Blood lead level, however, did not have any significant correlation with the presence of lead line. In traditional tile workers, lead toxicity is not uncommon and the toxic effects of lead were found more often on the teeth [bone], central and peripheral nervous system, hematological and lipid profiles than on the renal function.
Leishmaniasis

epidemiology

Molecular epizootiology of rodent leishmaniasis in a hyperendemic area of Iran.
Tehran University of Medical Sciences - School of Public Health - Department of Medical Entomology and Vector Control
Keywords: Leishmaniasis, Cutaneous-epidemiology; Rodentia-parasitology; Polymerase Chain Reaction; Gerbillinae-parasitology
Abstract: Zoonotic cutaneous leishmaniasis [ZCL] is an expanding disease and public health problem in Iran. In the current study, natural Leishmania infection rate and seasonal fluctuation of the infection in Rhombomys opimus population of a hyperendemic focus of ZCL in Iran was investigated. The study was conducted from October 2006 to October 2008 in Esfahan Province, central part of Iran. An extensive sampling of rodents using Sherman traps was done in different seasons. Nested PCR assay was used for detection and identification of Leishmania species and the results were confirmed using PCR-RFLP. Leishmania infection rate was 58.6% [34 of 58] using nested PCR. 44.8% of the gerbils were infected only with L. turanica and 1.7% with L. gerbilli alone. A mixed natural infection with L. major and L. turanica was seen in 12.1% of the rodents. L. major infection alone was not seen in R. opimus population in the study area. The highest and lowest Leishmania infection rates were observed in fall and spring respectively. L. turanica infection was observed throughout the year whereas mixed infections with L. major and L. turanica was not seen in spring. It is concluded that in the study area, L. major, L. gerbilli and L. turanica circulate in the population of R. opimus. Leishmania major infection usually accompanied by L. turanica in naturally infected gerbils with the highest rate in fall. It is recommended that the role of L. turanica in the epidemiology and transmission of ZCL be revisited.

Length of Stay

Role of surgeon in length of stay in ICU after cardiac bypass surgery.
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Tehran University of Medical Sciences - Tehran Heart Center
Keywords: Intensive Care Units; Coronary Artery Bypass; Prospective Studies; Risk Assessment
Abstract: We presumed that the surgeon himself has an impact on the results after coronary artery bypass grafting [CABG] as there is no unique protocol for the discharge of post-operative cardiac patients at our institution. Therefore, we examined whether the surgeon himself has an impact on the intensive care unit [ICU] stay of isolated CABG patients. We prospectively studied a total of 570 consecutive patients undergoing elective CABG. Length of stay in the ICU was defined as the number of days in the ICU unit post-operatively. Seven operating surgeons were classified in 3 categories on the basis of the mean hospital stay of their patients [1, 2 and 3 if the mean total patients' stay in hospital was <8 days, between 8 to 10 days, and longer than 10 days; respectively]. Using a multivariable regression model, we determined the independent predictors of length of stay in the ICU [> 48 hours] and examined the role of surgeon in this regard. Incidence of post-operative arrhythmia and length of ICU stay were higher in the patients of surgeon category 3 than those of surgeon categories 1 and 2. Surgeon category 3 also operated on patients with higher Euro SCOREs than did surgeon categories 1 and 2. With the aid of a multivariable stepwise analysis, three variables were identified as independent predictors significantly associated with ICU length of stay: age, history of cerebrovascular accident, and surgeon category. Surgeon category may independently predict a prolonged length of stay in the ICU. We suggest that a unique discharge protocol for post-CABG patients be considered to restrict the role of surgeon in the ICU stay of these patients.

Leukocidins

genetics

Prevalence of genes encoding Bi-component leukocidins among clinical isolates of methicillin-resistant staphylococcus aureus.
Havaei, S.A.; Moghadam, S. Ohadian; Pourmand, M.R.; Faghn, J.
Isfahan University of Medical Sciences - aSchool of Medicine - Department of Microbiology
Keywords: Methicillin-Resistant Staphylococcus aureus-genetics; Staphylococcal Infections; Cross Infection; Prevalence; Polymerase Chain Reaction

Abstract: Staphylococcus aureus has been recognized as a major human pathogen and is the major cause of nosocomial infections. Gamma-toxin, leukocidin and other bi-component toxins are a family of proteins encoded by the hlg and luk-PV, respectively. Panton-Valentine leukocidin (PVL) is an example of these toxins and causes leukocyte destruction and tissue necrosis. The aim of this study was to determine the prevalence of bi-component leukocidin in Methicillin-Resistant Staphylococcus aureus (MRSA) isolates in staphylococcal infections. Collectively, 143 isolates of S. aureus were obtained from Tehran University of Medical Sciences hospitals and confirmed with biochemical tests. Then polymerase chain reaction was used to detect luk-PV loci and luk-E/D. Coagulase gene was used as internal control. The antibiotic susceptibility patterns of isolates were determined using disk diffusion method. Out of 149 S. aureus isolates 24.2% were luk-PV positive and 73.8% were luk-E/D positive. There was PVL-positive MRSA isolates with high prevalence in evaluated hospitals. The diseases from these bacteria are with extensive necrosis, leukopenia and even death. We desire that, prevent from progress and death by diagnosis and right treatment.

**Limb Deformities, Congenital**

genetics

Limb deficiencies: clinical genetic study.
El Belbesy, Mervat Farag
Alexandria University - Medical Research Institute - Department of Human Genetics
Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 221-240 (80 ref.)

Keywords: Cytogenetic Analysis; Consanguinity

Abstract: Limb deficiencies are an important group of limb malformations characterized by great diversity of their manifestations ranging from complete absence of a limb to simple agenesis of a phalanx. They may occur as an isolated malformation or as part of a syndrome. A number of single mutant genes, chromosomal anomalies, and teratogens have been associated with limb deficiencies; however the exact pathogenesis of the vast majority of cases remains unknown. This work aimed to study the clinical presentation, causes and genetic implication of limb deficiencies and to stress on the importance of accurate diagnosis to provide efficient genetic counseling. Twenty five cases with limb deficiencies were included in this study. They were referred to the Human Genetic Department. All patients were subjected to detailed genetic history, complete genetic examination with detailed limb description, three generation pedigree, analysis, basic antihypertrophic measurements, and radiological examination. Cytogenetic study was done for 20 cases and other investigations were carried out depending on individual cases. Of all cases, 24% had isolated limb deficiencies and 76% had limb deficiencies as part of syndrome/sequence or an association. Consanguinity was found in 52% of cases, all of them had limb deficiencies as part of multiple congenital anomalies. 56% of the observed limb deficiencies involving the upper extremities only, and 44% had coexisting upper and lower limbs involvement. None of patients had lower limb affection without upper limb involvement. 44% of cases had terminal transverse defects, 40% had longitudinal defects, and 12% had axial defects. Multiple defects were found in 4% (one case only). 52% of cases were found to be due to single mutant gene disorders; 32% were autosomal dominant, and 20% were autosomal recessive. The results of this study have shown that thorough study and full description of patients with limb deficiencies or reduction defects are needed to allow accurate diagnosis, better understanding of the etiology, and to control risk factors implicated in these anomalies, also a detailed clinical assessment of close relatives is important to provide an accurate genetic counseling to the family.

**Liver Cirrhosis, Experimental**

drug therapy

Omer, Adel H.; Talab, Abdel Aziz A.; Mansour, Magda A.; Amer, Abdel hamid G.
Menoufiya University - Faculty of Medicine - Department of Clinical Pharmacology

Keywords: Angiotensin II Type 1 Receptor Blockers; Losartan-therapeutic use; Liver-pathology; Histology; Immunohistochemistry; Hyaluronic Acid-blood; Liver Function Tests; Rats

Abstract: Hepatic fibrosis is a histological change caused by liver inflammation and characterized by accuix of extracellular matrix protein [ECM]. Losartan is one class of drugs that inhibit the action of angiotensin II [A H at its receptors. It has been used as antihypertensive in human. Was to clarify the beneficial effect of losartan in experimental liver fibrosis by bile duct ligated. Forty adult male albino rats were divided into four equal groups; GI [control], GI operated], Gall bile duct ligated, BDL) and G VI received losartan at a dose of 5 mg/kg daily after BDL. After fc weeks, blood samples were collected for estimation of serum bilirubin [SB], alanine aminotransferase [ALT], asparate aminotransferase [AST], alkaline phosphatase [ALP] and serum hyaluronic acid [SHA]. Rats were sacrificed and th
livers were processed for estimation of hydroxyproline and for histological study. Paraffin sections were stained by H and E, Masson's trichrome and other sections were stained immunohistochemically for desmin. Revealed elevated liver enzymes, serum and tissue fibrosis markers [hyaluronic acid and hydroxyproline] together with dramatic histological changes in liver sections of G III [BDL]. Administration of Losartan after BDL C-V showed improvement of biochemical analysis of liver enzymes, fibrosis markers and amelioration of the histological changes of hepatic tissues. Moderate expression of desmin from hepatic stellate cells [HSCs] was also evident from this study. That losartan has a beneficial effect in liver fibrosis induced by BDL. However, further study for its usefulness in human hepatic fibrosis is recommended.

Liver Transplantation

adverse effects

Analysis of complications in hepatic right lobe living donors.
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University of Alexandria - Department of General Surgery

Keywords: Living Donors; Tissue Donors; Hepatectomy-adverse effects; Retrospective Studies; Postoperative Complications; Risk Factors; Liver-anatomy and histology

Abstract: Living donor liver transplantation [LDLT] has been expanding to adult recipients by using right lobe grafts. However, the incidence of complications is more frequent than that involving left lobe grafts. Hence, we aimed to analyze postoperative complications in right lobe liver donors as a step to improve the results in the donors. Three hundred and eleven right lobe liver donors were retrospectively reviewed between February 1998 and December 2003. The ages of the donors ranged from 19 to 64 years [median: 46 years]. Their body mass index ranged from 16.6 to 34.3 [median: 22.1]. The mean duration of the operation was 6.58 [1.25] hours and blood loss was 289 [254] mL. The estimated median donor residual liver volume was 42.2% [range: 20.6-60.3%] and the median hospital stay was 14.5 days [range: 6-267 days]. One donor died of liver failure due to small residual liver volume [26%] and steatohepatitis. One hundred and twenty three complications occurred in 104 donors [33.4%]. Donors experienced one or more complications. According to the Clavien classification, grade I complications occurred in 71 of the episodes [57.7%], grade II complications in 9 [7.3%], grade IIIa complications in 39 [31.7%], grade IIIb complications in 3 [2.5%], and grade V complications in 1 [0.8%]. Biliary complications were the most common and occurred in 37 donors [12%]. Right lobe liver donation is a widely accepted procedure that results in the expansion of the indication for LDLT to adults and large children. However, remaining liver size and anatomical variations in the biliary tree represent important risk factors for postoperative complications.

Lupus Erythematosus, Systemic

immunology

Immunoinflammatory markers and disease activity in systemic lupus erythematosus: something old, something new.
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EMHJ - Eastern Mediterranean Health Journal 2010; 16 (8): 893-900 (30 ref.)

Keywords: Biological Markers-blood; Vascular Cell Adhesion Molecule-1-diagnostic use; Intercellular Adhesion Molecule-1-diagnostic use; Lupus Erythematosus, Systemic-blood

Abstract: This study assessed the utility of some novel inflammatory markers compared with traditional laboratory markers in patients with systemic lupus erythematosus [SLE]. In a cohort of 43 SLE patients [19 with inactive and 24 with active SLE] and 20 healthy controls, serial measures of soluble vascular cell adhesion molecule [sVCAM-1] were significantly associated with SLE disease activity, scored using the British Isles Lupus Assessment Group index. Inflammatory markers neopterin and soluble intercellular adhesion molecule [sICAM-1] appeared to be clinically useful for isolated assessments of disease activity. Both antibodies to double-stranded DNA [antidsDNA] and sVCAM-1 were relatively good markers of disease activity and could help to predict remission or monitor the therapeutic response in SLE.
Lupus Nephritis

physiopathology

Shehata, Osama H.; Elgohary, Eman; Saied, Mohammed; Elbordiny, Magdy; Abdel Zaher, Eman; Muawia, Shaden
Alexandria University - Faculty of Medicine - Department of Internal Medicine
Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 75-84 (44 ref.)
Keywords: Vascular Cell Adhesion Molecule-1-blood; Vascular Cell Adhesion Molecule-1-urine; Albuminuria; Disease Progression
Abstract: Systemic lupus erythematosus [SLE] is a chronic multisystem autoimmune disease. Renal involvement [lupus nephritis; LN] is a frequent and potentially serious complication that worsens morbidity and mortality. LN is a chronic disease with remissions and relapses, and this is important to predict aiming for optimal management. However, a consistent approach still has not been adopted. To study serum and urinary soluble vascular cell adhesion molecule-I [sVCAM-1] levels in patients with lupus nephritis and their correlation with the disease activity, laboratory data and renal pathology. Twenty three patients with lupus nephritis and twenty age, sex and ethnic matched healthy controls were subjected to physical examination, abdominal ultrasound, laboratory investigations including: Complete blood cell count, erythrocyte sedimentation rate [ESR] , renal functions, urine analysis, 24-hour urinary protein excretion, liver functions, serum antinuclear antibody [ANA], anti-double stranded deoxyribonucleic acid [anti-dsDNA], serum and urinary soluble VCAM-1 [sVCAM-1] and other necessary investigations. Percutaneous renal biopsy, with histopathological assessment and determination of activity and chronicity indices, was done for all patients. LN patients had a statistically significantly higher serum [S] and urinary sVCAM-1, S. ANA, S. anti dsDNA, ESR, blood urea, S.creatinine, S.uric acid, 24-hour urinary protein excretion and S. alanine and aspartate aminotransferases, and a statistically significantly lower hemoglobin concentration, S. albumin and creatinine clearance tian healthy controls. Renal biopsy assessment showed World Health Organization [WHO] class 11 LN in 3 patients, class iii in 4 patients, class IV in 13 patients and class V in 3 patients. S. sVCAM-1 was statistically significantly higher in classes III, IV and V LN than controls and in class IV LN than class II. Urinary sVCAM-1 was statistically significantly higher in classes II, III, IV and V LN than controls and in classes III and IV LN than class II. Anti-dsDNA was statistically significantly higher in classes III and IV LN than controls, with no statistically significant differences in between the WHO classes. S. and urinary sVCAM-1 showed a statistically wrienon with the total SLEDAI score, pathologic activity index and urinary protein excretion, with a significantly positive correlation between S. and urinary sVCAM-1. A significantly negative correlation was present between S. sVCAM-1 and hemoglobin concentration, and between urinary sVCAM-1 and S. albumin. As regards anti-dsDNA, no statistically significant correlations were observed. In patients with LN, serum and urinary sVCAM-1 are positively correlated with the total SLEDAI score, pathologic activity index and urinary protein excretion. Measurement of their levels, specially urinary sVCAM-1, seems to be valuable in evaluating LN patients. Further studies are recommended to assess the role of repeated measurements. Whether a blockade of soluble VCAM-1 could have a therapeutic implication in LN remains to be investigated.

Lymph Nodes

pathology

Enlarged solitary neck node: a study of 75 patients.
Saleem, Muhammad; Said, Mohammad; Khan, Hidayatullah
Lady Reading Hospital - Department of ENT
JPMI - Journal of Postgraduate Medical Institute 2010; 24 (1): 9-12 (13 ref.)
Keywords: Neck; Biopsy, Fine-Needle; Lymphatic Metastasis; Lymphatic Diseases
Abstract: The objective of the study was to evaluate the causes of enlarged solitary lymph node of wore than one month duration in the neck. This study was conducted at Departments of ENT and Head and Neck Surgery Postgraduate Medical Institutes, Peshawar from January 2005 to Dec, 2006. A total of 75 patients were included. All the patients were evaluated through detailed history and clinical examinations. Beside these, laboratory, radiological, endoscopic. Fine Needle Aspiration Cytology and histological studies were performed. A total of 75 patients with mean age of 35 years were studied during this period Male to female ratio was 1.2:1. Out of 75 patients, 29 [39%] were metastatic, 27 [36%] tuberculous, 16 [22%] had lymphoma and 1 [1.5%] each of toxoplasmosis, infectious mononucleosis and sarcoidosis. As malignancy was the commonest cause of solitary neck lymphadenopathy, so every patient especially old age group should he properly investigated to exclude metastatic diseases.
Macroglossia

etiology

A novel cause of swollen tongue.
Malik, Kamran Zammurrad; Aftab, Pervez Ahmed; Altaf, Choudhry; Ashraf, Muhammad; Shahzad, Tahir; Javed Rehman
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Combined Military Hospital
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 154-156 (7 ref.)
Keywords: Tongue-pathology; Acute Disease; Macroglossia-complications

Macrophage Activation Syndrome

diagnosis

Reactive macrophage activation syndrome in a patient with parvovirus B19 infection, lymphocytic lichenoid vasculitis, urticaria and angioedema.
Soldo Juresa, Dragica; Radman, Maja; Pejsa, Vlatko; Bozikov, Velimir
University Hospital Vuk Vrhovac
Keywords: Parvovirus B19, Human; Urticaria; Angioedema; Vasculitis

Malathion

toxicity

A comparative histological and biochemical study on the use of vitamins C, E and alpha lipoic acid either separately or in combination on acute hepatic toxicity with malathion.
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Assiut University - Faculty of Medicine - Department of Histology, Forensic Medicine and Clinical Toxicology
Keywords: Liver-ultrastructure; Microscopy, Electron; Oxidative Stress; Superoxide Dismutase-blood; Thiobarbituric Acid Reactive Substances-blood; Transaminases-blood; Protective Agents; Vitamin C-therapeutic use; Vitamin E-therapeutic use; Thioctic Acid-therapeutic use; Rats
Abstract: Malathion is one of the most popular organophosphorous insecticides. Free radical damage is an important direct or indirect factor involved in malathion poisoning. The objective of the present study was to estimate the role of vitamin C, vitamin E and alpha-lipoic acid either individually or in combination, in amelioration of acute hepatic toxicity induced by malathion. Sixty adult male albino rats were divided into six equal groups. Group iserved as control. Group 2 received malathion [1000 mg/kg body weight] once orally. Group 3 received malathion+ vit.C [200 mg/kg] once i.p. Group 4 received malathion+ vitamin F [150mg/kg] once i.m. Group 5 received malathion+ alpha-lipoic acid [25mg/kg] once i.p. Group 6 received malathion+ vit. C+ vit.E+ alpha-lipoic acid. Animals of all groups were sacrificed after 24 hours. Histological examination of the liver was performed. Biochemical assay of superoxide dismutase [SOD] activity and total thiol as antioxidant indices, thiobarbituric acid reactive substances [TBARS] as an index of lipid peroxidation [oxidative stress indices], aspartate aminotransferase [AST], alanine amino transferase [ALT], total protein, albumin and globulin as liver function tests was done. Light and electron microscopic examination of liver of group 2 exhibited foci of altered cells with dense nuclei and vacuolated cytoplasm, mononuclear cell infiltrations in portal areas, electron lucent areas in the cytoplasm of the hepatocytes, marginatin of nuclear chromatin. Biochemical analysis showed a significant increase in the serum levels of SOD, total thios, TBARS, AST, ALT, total protein and globulin as compared to control. Treatment by any of the antioxidants variably reduced the hepatic structural changes induced by malathion,while combined treatment resulted in a significant degree of recovery. There was significant decrease in serum levels of all biochemical parameters when treated with one or combination of antioxidants [vitamin C, F or u lipoic acid]. Combination of the previous antioxidants could be used as helpful therapeutic line in treatment of acute hepatic toxicity with malathion rather than their use separately.
Malocclusion

surgery

The use of mini-implants in en masse retraction for the treatment of bimaxillary dentoalveolar protrusion.
Aljhani, Ali; Zawawi, Khalid H.
King Abdulaziz Medical City for National Guard
Keywords: Malocclusion-therapy; Orthodontics, Corrective; Tooth Extraction; Orthodontic Anchorage Procedures; Tooth Movement
Abstract: This case report describes the treatment of a 22-year-old girl who had incompetent lips with severe bimaxillary dentoalveolar protrusion. The treatment of choice for such patients is usually extraction of four first premolars and retraction of the anterior teeth. To maintain the extraction space, maximum anchorage is required. Mini-implants were used to provide maximum anchorage for obtaining a good facial profile.

therapy

Correction of a severely rotated maxillary central incisor with the Whip device.
Jahanbin, Arezoo; Baghaii, Bahareh; Parisay, Iman
Mashhad University of Medical Sciences - Department of Orthodontics
SDJ - Saudi Dental Journal [The] 2010; 22 (1): 41-44 (14 ref.)
Keywords: Incisor-pathology; Orthodontics, Corrective; Tooth Movement; Tooth, Supernumerary-therapy
Abstract: The aim of this case report was to introduce an appliance that can be used for Whip device; correcting severe rotation of anterior teeth in pre-adolescent children. Severe rotation; This is a case report of an 11-year-old Iranian boy with a mixed Mesiodens dentition Class I malocclusion defined by a severe rotation of upper left central incisor and a mesi-odens between the centrals. The supernumerary tooth was first extracted, and then a Whip device including removable appliance, a cantilever spring and bonded tube on rotated tooth was inserted into his mouth. After 8 months, the upper left central incisor was orthodontically brought into proper alignment. Circumferential supracrestal fibrotomy was done next to overcorrection of the tooth and one week after surgery, the device was removed and the retention was started. The whip device, a removable appliance can be very effective for correcting severe rotation of anterior teeth.

Mandible

anatomy and histology

Anatomical and radiological study of the mandibular canal, mental foramen and accessory mental foramen.
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Zagazig University - Faculty of Medicine - Department of Anatomy
Suez Canal University Medical Journal 2009; 12 (1): 115-126 (50 ref.)
Keywords: Mandible-radiography; Radiography, Panoramic
Abstract: The knowledge of the intraosseous course of the mandibular canal, mental foramen, accessory mental foramen and its anatomical variations is of great importance in oral surgical interventions. The aim of this study is to investigate the position and the course of the intraosseous mandibular canal, the mental foramen and the accessory mental foramen in cadaveric, bones, panoramic and C.T radiographs. Panoramic radiographs were used also to determine the close proximity of impacted mandibular molar teeth to the inferior alveolar canal. This study examined 16 formalin-fixed mandible specimens and 88 dried human mandibles. A retrospective study was performed using panoramic radiographs of 189 patients and cone beam C.T of 11 patients. The mandibular canal frequently lacked definite walls. The artery and vein followed the inferior alveolar nerve, running along the medial side from the mandibular foramen to the first molar. The thickness of the mandible increased from the mandibular foramen to the mandibular body. The horizontal dimension of the mental foramen was 3 mm and its vertical dimension was 2.5 mm. The position of the mental foramen on panoramic radiographs is most commonly below and between the mandibular premolar teeth. The accessory mental foramen was observed in 6.6%. The accessory mental foramen was variable in location with respect to the mental foramen. It was bilateral and retromolar in one case. Retromolar foramen is distinct and may be bigger than the mental foramen. Attention to the accessory mental foramen is important during any oral surgical procedures, and this might reduce the rate of paralysis and hemorrhage in mental and cheek regions. 18% of female cases and 14.4% of male cases has proximity or even contact of molar roots with the mandibular canal. The lingual canal was observed in cone beam C.T in the inside of mental region extend internally from mandibular canal.
Mediastinal Diseases

diagnosis

Percutaneous image guided cutting needle biopsy of mediastinal masses: diagnostic yield and complications.
Khan, Abdur Rehman; Khan, Mohammad Yousaf; Javaid, Arshad; Hussain, Ijaz
Lady Reading Hospital - Department of Radiology and Pulmonology
Keywords: Biopsy, Needle-adverse effects; Tomography, X-Ray Computed; Ultrasonography; Biopsy, Needle-methods; Sensitivity and Specificity; Predictive Value of Tests
Abstract: To evaluate image guided cutting needle biopsy of mediastinal masses for diagnostic yield and complications. This was a descriptive study. Computed Tomography [CT] and ultrasound guided biopsies of mediastinal masses were performed in 30 patients. Tissue core obtained, were preserved in formalin and sent for histological examination. X-ray chest taken for evidence of pneumothorax and mediastinal widening. Hemoptysis, pneumothorax other complication were recorded. Definite histological diagnosis was obtained in all 30 patients. 70% [n=21] were malignant disease and 30% [n=9] were benign pathologies. Sensitivity and specificity, positive and negative predictive values were 100%. Pneumothorax occurred in 7% [n=2] cases. Hemoptysis occurred in 10% [n=3] cases. Chest intubation was not required in cases of pneumothorax. No hemodynamic instability occurred. There was no major complication. Image guided percutaneous transthoracic cutting needle biopsy in mediastinal masses is an accurate procedure for specific histological diagnosis and has a low complication rate.

Methotrexate

toxicity

Evaluation of the possible protective role of folic acid on the liver toxicity induced experimentally by methotrexate in adult male albino rats.
Soliman, Maha E.
Menoufiya University - Faculty of Medicine - Department of Histology
Keywords: Liver-ultrastructure; Microscopy, Electron; Protective Agents; Folic Acid-therapeutic use; Rats; Male; Liver Function Tests
Abstract: Methotrexate [MTX] is a chemotherapeutic drug that is widely used in the treatment of malignant tumors and rheumatic disorders. However, the clinical success is limited by the hepatotoxic effect which is a major adverse reaction that can occur during [MTX] treatment. The present study was designed to throw the light on the histological changes in the rat liver following treatment with [MTX] with evaluation of the possible protective effect of folic acid. Thirty two adult male albino rats were utilized in the present work. They were classified into four groups [8 animals each]. Group I: Served as control group. Group II: The rats received folic acid in a daily oral dose of [250ug/kg b.w] for four weeks. Group III: Included rats which received an I.P injection of MTX [20mg/kg b.w] once weekly for four weeks. Group IV: The animals were concomitantly treated with MTX and FA as the same previous doses, period and routes of administration for four weeks. Blood samples were collected from retroorbital venous plexus for biochemical measurements of liver enzymes [transaminases] in the serum, then the animals were sacrificed by decapitation. Specimens from the liver were processed for light and electron microscopic studies. The present work showed severe damage of the liver following [MTX] treatment as denoted by increased levels of aspartate transaminase [AST] and alanine transaminase [ALT] enzymes in the serum. Examination of the liver sections revealed severe dilatation and congestion of the central and portal veins with marked mononuclear cellular infiltration. Hepatocellular vacuolation with areas of fatty degeneration could be clearly seen. Increased collagen deposition especially around the portal areas was observed in addition to depletion of glycogen content. The activity of succinic dehydrogenase enzyme was apparently decreased while that of acid phosphatase was greatly increased. Severe damage of the cell organdies was obviously seen. On the other hand, rats received folic acid [FA] following treatment with MTX revealed more or less apparent normal architecture. FA proved to have remarkable protective effect against toxicity of MTX by minimizing the previous degenerative changes, so it is advisable for patients routinely treated with [MTX].
Milk

chemistry

Zinc and copper concentrations in human milk and infant formulas.
Khaghani, Shahnaz; Ezzatpanah, Hamid; Mazhari, Najmeh; Givianrad, Mohammad Hadi; Mirmiranpour, Hossein; Sadrabadi, Fatemeh Shahi
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Tehran University of Medical Sciences - Department of Clinical Biochemistry

Keywords: Infant Formula-chemistry; Zinc-analysis; Copper-analysis; Nutritional Requirements; Mothers

Abstract: Available accurate data on the concentrations of copper [Cu] and zinc [Zn] in human milk throughout lactation and infant formulas is important both for formulating nutritional requirements for substances and to provide a base line for the understanding the physiology of their secretion. The objective of this study was to analyze the concentrations of zinc and copper in infant formulas and human milk during prolonged lactation. Levels of these metals were examined in relation to selected parameters such as age, weight, height, education and occupation of mothers. Thirty mothers referred to the selected clinics in Tehran entered the study. Human milk samples were collected at 2 months postpartum. Zinc and copper concentrations were determined by atomic absorption spectrophotometer. The mean values of Zn and Cu in human milk were 2.95 +/- 0.77 mg/L and 0.36 +/- 0.11 mg/L. The mean values of Zn and Cu in infant formulas were 3.98 +/- 0.25 mg/L and 0.53 +/- 0.17 mg/L. No significant relationship was found between levels of trace elements in human milk and evaluated parameters such as age, weight, height, education and occupation of mothers. The concentrations of zinc and copper in breast milk were lower than those reported in the literature.

Mortality

Iran mortality and measures of risk: rankings for public policy.
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Allameh Tabatabai University - E.C.O. College of Insurance

Keywords: Life Expectancy; Public Policy; Cause of Death

Abstract: This paper offers mortality risk rankings for Iranian mortality data. It extends methods to include mixed cohorts, tests changes in mortality risks, compares measures of risk and discusses public policy implications. The methodology used in risk measures takes current practice and extends it to include variations in population dynamics. The specification is presented and compared with existing literature. Our findings confirm literature results in the re-ordering that takes place when different risk measures are used. In addition, we find there is consistency in risk rankings between 1999 and 2000 records of Iranian mortality data. Thus, these risk measures are stable, robust across time and relay risk information consistently. There are considerable implications in adopting particular risk measures for public policy. However, given properties of risk measures discussed here, it is clear that policy makers can select relevant risk measures depending on their priorities.

Mucocele

pathology

Torsion of appendix secondary to mucocele - a case report.
Afzal, Muhammad; Hamdani, Naeem Raza
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Combined Military Hospital Mangla
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 145-146 (11 ref.)

Keywords: Appendix-abnormalities; Appendix-pathology; Torsion Abnormality
surgery

Mucoceles of the paranasal sinuses: surgical treatment and long term results.
Al Madani, Ayman
Alexandria University - Department of Otorhinolaryngology
Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 109-117 (40 ref.)
Keywords: Paranasal Sinuses; Endoscopy-utilization; Treatment Outcome
Abstract: To present our long term results managing paranasal sinus mucoceles highlighting the pros and cons of the endoscopic approach. Retrospective analysis of the clinical characteristics and treatment outcome of 40 patients with paranasal sinus mucoceles managed by the author over a 9-year period. All patients were subjected to thorough history taking, general otolaryngologic examination, nasal endoscopy and preoperative computed tomography scan of the paranasal sinuses. Magnetic resonance imaging was done whenever indicated to evaluate intracranial and br intraorbital extension. An ophthalmological examination was carried out in patients with ocular or visual disturbances. The patients were 24 males and 16females, their age ranged from 6 to 53 years. The clinical presentation consisted mainly of ophthalmological signs and symptoms that reflects the preferential localization of mucoceles in the frontoethmoid complex [52.5%]. Thirty six case were managed solely and successfully via endoscopic means. The remaining 4 cases were managed by external approach alone [2 cases] or through combined external and endoscopic approaches [2 cases]. Follow-up ranged between 10-70 months. At the last follow up visit, the presenting symptoms resolved completely in 33 patients, improved in 5 patients. Two patients reported persistence of headache which was later diagnosed as migraine. Our study pointed out the usefulness of the endoscopic approach for both the treatment and follow up of mucoceles. This mini-invasive technique permits accurate drainage and marsipulization of the mucocele with low morbidity, excellent visualization, lack of external incision, and a short hospital stay. Throughout our experience, the endonasal endoscopic approach has proved to be a reliable intervention modality with a favorable long term outcome.

Mycobacterium tuberculosis

isolation and purification

Characterization of Mycobacterium tuberculosis of Lebanese patients by double-repetitive-element polymerase chain reaction.
Hamze, M.; Rahmo, A.; Saade, M.
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Lebanese University - Faculty of Public Health
EMHJ - Eastern Mediterranean Health Journal 2010; 16 (8): 812-819 (21 ref.)
Keywords: Polymerase Chain Reaction; Mycobacterium tuberculosis-genetics; Tuberculosis, Multidrug-Resistant; Genotype; Microbial Sensitivity Tests
Abstract: Molecular studies have been successfully applied in evaluating epidemiological linkages in tuberculosis. A total of 87 isolates of Mycobacterium tuberculosis were collected from patients in all regions of Lebanon and characterized in terms of drug sensitivity. Double-repetitive-element polymerase chain reaction was used to differentiate between strains. Various correlations related to age, sex, region, sensitivity and genotype were examined. Several genotypes were more common in certain age ranges. Male patients appeared more likely either to be infected by or to develop multi-drug resistant strains. There was also evidence for a distribution of genotype groups indicating some level of geographical isolation and hence separate evolution of M. tuberculosis strains.

Characterization of Mycobacterium tuberculosis in Syrian patients by double-repetitive-element polymerase chain reaction.
Rahmo, A.; Hamze, M.
National Commission for Biotechnology
EMHJ - Eastern Mediterranean Health Journal 2010; 16 (8): 820-830 (29 ref.)
Keywords: Polymerase Chain Reaction; Mycobacterium tuberculosis-genetics; Genotype; Microbial Sensitivity Tests; Tuberculosis, Multidrug-Resistant
Abstract: The role of previous treatment in the dynamics of tuberculosis transmission has not been adequately investigated. Mycobacterium tuberculosis isolates from previously treated patients [n = 88] from all regions of Syrian Arab Republic were characterized in terms of antibiotic sensitivity and genotyping using double-repetitive-element polymerase chain reaction [DRE-PCR] method for the proximity of the repetitive DNA elements IS6110 [a mobile genetic element] and PGRS. The 88 isolates resulted in 59 different DRE-PCR patterns. Correlations related to age, sex, region, sensitivity and genotype were examined. All regions of the country showed high levels of genotype diversity, suggesting a low level of transmission of M. tuberculosis strains in previously treated patients.
**Natriuretic Peptides**

*Natriuretic peptide system and cardiovascular disease.*
Cacciapuoti, Federico
Second University of Naples - Department of Internal Medicine

**Heart Views** 2010; 11 (1): 10-15 (36 ref.)

**Keywords:** Natriuretic Peptide, Brain; Atrial Natriuretic Factor; Cardiovascular Diseases; Heart Failure; Ventricular Remodeling; Natriuretic Peptide, C-Type

**Abstract:** The mammalian Natriuretic Peptide [NP] system consists of neuro-hormones, such as atrial natriuretic peptide [ANP], brain natriuretic peptide [BMP], c-type natriuretic peptide [CNP], and the N-Terminal fragment of BMP [NT-pro-BNP]. In response to some cardiovascular derangement the heart (acting as an endocrine organ), brain and other structures secretes natriuretic peptides in an attempt to restore normal circulatory conditions. Their actions are modulated through membrane-bound guanylyl cyclased [GC] receptors. They induce diuresis, natriuresis and vasodilation in the presence of congestive heart failure. These neuro-hormones also play a role in the suppression of neointimal formation after vascular injury. In addition, they act as antifibrotic and antihypertrophic agents preventing cardiac remodeling after myocardial infarction. Further, NP have diagnostic and prognostic role in heart failure, vasoconstriction, left ventricular late remodeling after MI and others. At present, some drugs such as Nesiritide, NEP inhibitors and vasopeptidase inhibitors were synthetized from NP, to antagonize these cardiovascular derangements. In future, it will be possible to elaborate some drugs similar to petidase inhibitors and some CNP-like drugs able to reduce many symptoms of cardiovascular derangements without significant side effects.

**Neoplasms**

**epidemiology**

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National Cancer Registry

**EMHJ - Eastern Mediterranean Health Journal** 2010; 16 (8): 837-845 (37 ref.)

**Keywords:** Incidence; Sex Distribution; Registries; Age Distribution; Risk Factors

**Abstract:** Cancer causes 14% of all deaths in Jordan. This paper presents the incidence of cancer in Jordan from 1996 to 2005. Over the 10-year period there were 33 661 cases of cancer. The average crude incidence rate was 66.2 per 100 000 for males and 70.0 per 100 000 for females [age-standardized rates: 119 per 100 000 adult males and 116 per 100 000 adult females]. The 5 most frequently reported cancers among adult males were: lung [10.6%], colorectal [9.8%], leukaemia [9.3%], urinary and bladder [8.6%] and prostate [7.4%]. For adult females these were: breast [32.0%], colorectal [9.0%], leukaemia [6.7%], thyroid [4.9%] and corpus uteri [4.6%]. Cancer rates have changed little since 1996.

**Neovascularization, Pathologic**

*Anterior hyaloid fibrovascular proliferation.*
Ramezani, Alireza


**Keywords:** Diabetic Retinopathy-surgery; Vitrectomy; Vitreous Body; Cell Proliferation

**drug therapy**

*Intravitreal bevacizumab for choroidal neovascularization secondary to non-age-related macular degeneration.*
Salehipour, Masoud; Vafi, Nasser; Doozande, Azade; Yaseri, Mehdi
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Shahid Mohammadi Hospital - Department of Ophthalmology


**Keywords:** Antibodies, Monoclonal-therapeutic use; Angiogenesis Inhibitors; Macular Degeneration-drug therapy; Choroid-pathology; Prospective Studies

**Abstract:** To report the long-term results of intravitreal bevacizumab [Avastin] therapy for choroidal neovascularization [CNV] secondary to non-age-related macular degeneration [non-AMD]. This prospective
interventional case series was conducted on patients with non-AMD CNV. All patients received 1.25 mg intravitreal bevacizumab and were followed for at least 18 weeks. Indications for retreatment were decreased visual acuity or recurrence of subretinal fluid or hemorrhage associated with leakage on fluorescein angiography. Primary outcome measures were changes in best-corrected visual acuity (BCVA) and central macular thickness (CMT). Secondary outcome measures consisted of any adverse event related to the therapy. The study included 31 eyes of 28 patients with non-AMD CNV including idiopathic (n=11), due to myopia (n=7), angioid streaks (n=5), and other disorders (n=8). Mean initial BCVA was 20/100 which improved to 20/60 at 6 weeks; 20/40 at 12, 18, 24, and 36 weeks; and 20/30 at 54 weeks. Serial optical coherence tomography measurements showed mean CMT of 288 μm at baseline, which was decreased to 209 μm at last visit (P=0.95). There was no correlation between the underlying disease and changes in BCVA during the follow-up period. Intravitreal bevacizumab significantly improved visual acuity in eyes with non-AMD CNV due to various etiologies.

Nervous System Diseases

genetics

Razavi, Zahra; Taghirdi, Mohammad Mehdi; Eghbalian, Fatemeh; Bazzazi, Nooshin
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Hamadan University of Medical Sciences - Be'ssat Hospital, Hamadan - Department of Pediatrics
Keywords: Nerve Tissue Proteins; Syndrome; Nuclear Pore Complex Proteins; Tooth Avulsion; Family; Addison Disease; Esophageal Achalasia
Abstract: Allgrove syndrome is a rare autosomal recessive condition characterized by adrenal insufficiency, achalasia, alacrima and occasionally autonomic disturbances. Mutations in the AAAS gene, on chromosome 12q13 have been implicated as a cause of this disorder. We present various manifestations of this syndrome in two related families each with two affected siblings in which several members had symptoms including reduced tear production, mild developmental delay, achalasia, neurological disturbances and also premature loss of permanent teeth in two of them. The importance of this report is dental involvement [loss of permanent teeth] in Allgrove syndrome that has not been reported in literature.

Neuronal Ceroid-Lipofuscinosis
diagnosis

Study of clinical, biochemical, electroencephalographic, radiological and electron microscopic features in patients with batten disease.
Mahmoud, Doaa Hanafy; Salem, Mona Abd Alkader
Alexandria University - Department of Neurology
Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 129-133 (25 ref.)
Keywords: Neurologic Manifestations; Electroencephalography; Magnetic Resonance Imaging; Skin-Ultrastructure; Biopsy; Microscopy, Electron
Abstract: Neuronal ceroid lipofuscinoses "NCLs" are a group of common hereditary neurodegenerative metabolic disease. Batten disease is its juvenile type that usually occurs between the age of 4-10 years. The aim of this work is to study the clinical picture, biochemical, enzymatic changes, electroencephalographic abnormalities, neuroradiological imaging and ultrastructural alterations in skin biopsies using transmission electron microscope. Methods: The study was carried out on five patients suspected having neuronal ceroid lipofuscinoses. All patients subjected to complete history taking, with special concern to detailed family history. Full physical, neurological, ophthalmologic examination was done under standard conditions with different provocations. Skin biopsies were taken for histological and ultrastructural examination using transmission electron microscope. The current study included 5 males aged between 6 to 13 years with a mean of 8.5 +/- 1.2 years, two of them had positive family history. The main presentations were; epilepsy in all cases [100%]; generalized tonic clonic convulsion in 3 cases [60%] and myoclonic epilepsy in 2 cases [40%]. Mental retardation and rapidly progressing visual loss were present in all cases [100%]. Motor deficits in the form of spastic quadripareisis were found in 4 cases [80%], extra pyramidal manifestations in one case [20%] and cerebellar ataxia manifested in one patient [20%]. MRI showed atrophic brain and cerebellar hemispheres in all cases. Light microscopic study of skin biopsies displayed unremarkable changes, while ultrastructural examination revealed presence of cytoplasmic membrane bound osmophilic granular, curvilinear and finger print inclusion bodies.
**Nitric Oxide Synthase Type III**

**genetics**

Endothelial nitric oxide synthase gene Glu298Asp polymorphism in patients with coronary artery disease.
Salimi, Saeedeh; Firoozrai, Mohsen; Zand, Hamid; Nakhaee, Alireza; Shafiee, Sayed M.; Tavilani, Heidar; Mohebbi, Ahmad
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Zahedan University of Medical Sciences - School of Medicine - Department of Biochemistry

**Keywords:** Polymorphism, Genetic; Coronary Artery Disease-genetics; Risk Factors; Genotype

**Abstract:** Endo-derived nitric oxide [NO] is synthesized from L-arginine by endothelial nitric oxide synthase [NOS3]. Since reduced NO synthesis in endothelial cells has been implicated in the development of coronary atherosclerosis, we investigated the association of NOS3 gene polymorphisms and coronary artery disease [CAD] in an Iranian population. We studied the NOS3 gene Glu298Asp polymorphism in 241 CAD patients with positive coronary angiograms [i.e., >50% stenosis affecting at least one coronary vessel] in Shahid Rajaee Heart Hospital and 261 control subjects without a history of symptomatic CAD. The NOS3 gene polymorphism was analyzed by polymerase chain reaction and restriction fragment length polymorphism. Lipid profile and other risk factors were also determined. The NOS3 gene polymorphism for Glu/Glu, Glu/Asp, and Asp/Asp were 61.3%, 32.2%, and 6.5%, respectively, in control subjects, and 46.5%, 42.7%, and 10.8% in CAD patients, respectively. The genotype frequencies differed significantly between the two groups [P=.003]. The frequencies of the Asp alleles were 32.2% and 22.6% for CAD patients and control subjects, respectively; the difference between the two groups was statistically significant [P=.001; odds ratio=1.6]. Plasma lipids, except HDL-C, were also significantly increased in the CAD groups. These results suggest that CAD is associated with Glu298Asp polymorphism of the NOS3 gene in our population and that this polymorphism is an independent risk factor for CAD.

**Nitric-Oxide Synthase**

**analysis**

Immunohistochemical distribution of inducible nitric oxide synthase enzyme [iNOS] in the renal cortex of control and diabetic adult male albino rats and the effect of iNOS inhibition by aminoguanidine.
Mazroa, Shireen A.; Asker Samar A.; El Shafey, Saad
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Mansoura University - Faculty of Medicine - Department of Histology and Cytology

**Keywords:** Adrenal Cortex; Diabetes Mellitus, Experimental; Immunohistochemistry; Guanidines; Rats; Male

**Abstract:** Inducible nitric oxide synthase [iNOS] enzyme endogenously synthesizes nitric oxide molecule involved in regulation of renal function. Conflicting reports exist regarding immunohistochemical localization of iNOS in the kidney and its role in diabetes. Investigation of immunohistochemical distribution of iNOS in renal cortex of control and diabetic rats and effect of iNOS inhibition by aminoguanidine. Forty adult albino male rats were used. Rats were divided into; group I [negative control animals], group II positive control rats [receiving aminoguanidine], group III included diabetic rats [diabetes was induced by streptozotocine drug], group IV [diabetic rats receiving aminoguanidine]. The animals were sacrificed afterl month. Kidneys were prepared for histological study and immunohistochemical localization of iNOS in renal cortex. In control [Group I and II] rats, collecting tubules revealed a positive immune reaction of iNOS, while renal glomeruli were negative. Diabetic [Group III] animals showed structural changes 1 month after induction of diabetes in the form of enlarged renal corpuscles, degenerated renal tubules and interstitial leukocytic infiltration, with a positive immune-reaction of iNOS in those structures. In diabetic [Group IV] animals, more diabetic changes were found after iNOS inhibition by aminoguanidine. The iNOS was expressed in collecting tubules of control rat kidney and in renal corpuscles of early diabetic rats. The inhibition of iNOS promoted more diabetic changes, indicating a possible protective role of iNOS against progression of diabetic nephropathy.
Nutrition Surveys

Nutrition knowledge, beliefs and dietary habits among elderly people in Nizwa, Oman: implications for policy.
Al Riyami, A.; Al Hadabi, S.; Abdel Aty, M.A.; Al Kharusi, H.; Morsi, M.; Jaju, S.
E-mail: asyariyami@gmail.com
Ministry of Health - Directorate General of Planning
EMHJ - Eastern Mediterranean Health Journal 2010; 16 (8): 859-867 (27 ref.)
Keywords: Knowledge; Food Habits; Nutrition Policy; Cross-Sectional Studies; Questionnaires
Abstract: The nutritional needs of the ageing population require special attention. We undertook a cross-sectional, community-based, household survey in Nizwa wilayat, Oman to study nutrition-related knowledge and beliefs and self-reported dietary habits among a sample of elderly people. The response rate for the household interview was 99.3% from a total sample of 2041. About 45% of the elderly were overweight or obese. Overall we found poor knowledge of nutrition plus some nutritional imbalances and low levels of physical activity. Significant sex differences existed in elderly peoples’ nutritional knowledge, consumption of fluids, milk and sweets, use of dietary regimens and experience of appetite change. The findings warrant reorientation of the existing health promotion strategy for the elderly.

Obesity

genetics

LMNA gene polymorphism [1908/CT] and indices of obesity in a sample of Egyptian females.
Elgezeery, Amina R.; Hassanein, Nargues M.; Mokhtar, Mohamed M.; Ibraheem, Lubna M.
Medical Research Institute - Department of Human Genetic
Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 125-128 (20 ref.)
Keywords: Lamins; Polymorphism, Genetic; Female; Body Mass Index; Cholesterol; Triglycerides; Adipose Tissue; Lipodystrophy
Abstract: Nuclear Lamin A and C are encoded by LMNA gene and present in terminally differentiated cells. The LMNA gene polymorphism [1908C/T] has been reported to be associated with adipose tissue metabolism and obesity indices in some populations, suggesting that this polymorphism may increase the risk of obesity. This study was conducted to estimate the C and T allele frequencies of LMNA gene polymorphism [1908], and to investigate the association of T-allele with obesity in a sample of Egyptian obese females. One hundred and forty two obese females [BMI>30Kg/m[2]] and 100 age matched non obese females [BMI</=25Kg/m[2]] as a control group were included in this study. The LMNA 1908C/T polymorphism was detected by PCR restriction fragment length polymorphism [PCR-RFLP] in obese and non obese females. The quantitative biochemical traits in the obese subjects were also studied. The frequency of T allele heterozygotes and homozygotes were higher in the obese females than in the non-obese, but the difference was statistically non significant [X[2]=1.52, P=0.46]. Also, the LMNA 1908 T allele frequency was higher in obese females than in the control group [0.36 and 0.30 respectively] but not significantly different [X[2]=1.74; P=0.15]. No statistical significant differences were detected in BMI, WHR ratio, fasting blood glucose, triglycerides, total cholesterol, high density lipoproteins and low density lipoproteins between obese females carrying C and T alleles. These results indicate that it is unlikely that the T-allele in the LMNA [1908] gene increases the risk of obesity or related quantitative traits in Egyptian females, however, the role of T-allele in obesity cannot be ruled out as its frequency was higher in obese than in non-obese females.

Occupational Exposure

Occupational exposure to blood and body fluids.
Bahadori, M.; Sadigh, G.
National Iranian Oil Company [NIOC] Hospital - Department of infectious disease
Keywords: Health Personnel; Blood; Body Fluids; Hepatitis B-transmission; Safety; Hepatitis C-transmission; Acquired Immunodeficiency Syndrome-transmission
Abstract: Occupational exposure to blood and body fluids is an important hazard for health care workers, which places them at a high risk for blood-borne infections including hepatitis B virus, hepatitis C virus and human immunodeficiency virus and results in psychological and emotional stresses. Several preventive measures have been proposed including pre-exposure [e.g., education, use of standard precautions, use of needle protective devices, and vaccination] and post-exposure [e.g., post-exposure prophylaxis and early detection of disease] prevention. In this article, the Importance of occupational exposure to blood and body fluids and the basic concepts of exposure prevention and management are reviewed.
**Olfactory Mucosa**

**anatomy and histology**

A histological study of bowman's glands in human olfactory mucosa.
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Akhatar Saeed Medical and Dental College
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 3-8 (29 ref.)

**Keywords:** Olfactory Mucosa-ultrastructure; Nasal Cavity-anatomy and histology; Autopsy

**Abstract:** The histology of olfactory mucosa has been previously studied under light and electron microscope. There are marked geographical differences between Pakistan and other countries where most of the research on olfactory epithelium has been conducted. To study morphology and quantitative analysis of Bowman's glands in human olfactory mucosa in Pakistani population. An observational study. This research was done in the Anatomy Department, A M College, Rawalpindi. The duration of study was two years from January 2001 to December 2003. Enbloc specimens were obtained from 20 autopsy cases. After decalcification, they were processed, stained with haematoxylin and eosin [H and E] and seen under light microscope. The olfactory mucosa was observed in the roof, medial and lateral walls of both nasal cavities. The type of glandular tissue and its morphology was observed. The olfactory epithelium was morphologically pseudostratified columnar with a characteristic lamina propria containing numerous olfactory nerve fascicles and Bowman's glands, observed in the roof, medial and lateral walls of both nasal cavities. The secretory acini were almost circular in cross section and measured 20 to 25 micro m in diameter. The secretory cells [7-10 micro m] were pyramidal in shape, with rounded darkly stained nuclei lying in the basal half of the cells. The ducts were seen leading from the glands onto epithelial surface. Mean number of serous acini when compared in the roof, medial and lateral walls of right and left nasal cavities was statistically insignificant. Olfactory mucosa was lined with pseudostratified columnar epithelium. The secretory acini of Bowman's glands were almost circular in cross section and cells were pyramidal in shape. Mean number of serous acini when compared in the roof, medial and lateral walls of right and left nasal cavities was statistically insignificant.

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**Oral Hygiene**

Evaluating oral hygiene knowledge and attitude of pregnant women.
Hamissi, J.; Vaziri, P. Bakianian; Davalloo, A.
Qazvin University of Medical Sciences - College of Dentistry - Department of Periodontics and Preventive Density

**Keywords:** Health Knowledge, Attitudes, Practice; Pregnant Women; Oral Health; Questionnaires; Toothbrushing

**Abstract:** The purpose of this study was to describe the knowledge and attitude of pregnant women in Efcvin Province, central Iran, Related to oral Hygiene. The study group comprised of 760 pregnant women living in Qvin, center of Iran in 2004. The questions were formulated to evaluate information without the need for dental examination. The age groups between 17-41 years old were randomly selected and a question was given to woman in three family planning center. Statistical analysis was done by SPSS 94.4% responded the questionnaire and participated in statistical procedure. 73.1% of the patients used to brush their teeth at least twice a day and also 70.3% used to brush their teeth after meal. Health authorities should strengthen the implementaion of community- based oral disease prevention and health promotion programmes. More importance must be given to oral health care center in family planning centers.

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**Orbital Pseudotumor**

**diagnosis**

Idiopathic orbital inflammation [Pseudotumor].
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Combined Military Hospital
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 151-153 (9 ref.)

**Keywords:** Orbital Pseudotumor-drug therapy; Orbital Pseudotumor-surgery; Tomography, X-Ray Computed
Orthodontics, Corrective

methods

Corticotomy facilitated orthodontics: review of a technique.
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King Abdulaziz University - Faculty of Dentistry - Chairman of Oral Basic and Clinical Sciences Department
Keywords: Malocclusion-surgery; Alveolar Process-surgery; Bony Callus; Maxilla-surgery; Tooth Movement-methods; Osteotomy
Abstract: Corticotomy found to be effective in accelerating orthodontic treatment. The most important factors in the success of this technique is proper case selection and careful surgical and orthodontic treatment. Corticotomy facilitated orthodontics advocated for comprehensive fixed orthodontic appliances in conjunction with full thickness flaps and labial and lingual corticotomies around teeth to be moved. Bone graft should be applied directly over the bone cuts and the flap sutured in place. Tooth movement should be initiated two weeks after the surgery, and every two weeks thereafter by activation of the orthodontic appliance. Orthodontic treatment time with this technique will be reduced to one-third the time of conventional orthodontics. Alveolar augmentation of labial and lingual cortical plates were used in an effort to enhance and strengthen the periodontium, reasoning that the addition of bone to alveolar housing of the teeth, using modern bone grafting techniques, ensures root coverage as the dental arch expanded. Corticotomy facilitated orthodontics is promising procedure but only few cases were reported in the literature. Controlled clinical and histological studies are needed to understand the biology of tooth movement with this procedure, the effect on teeth and bone, post-retention stability, measuring the volume of mature bone formation, and determining the status of the periodontium and roots after treatment.

Osteoporosis, Postmenopausal

epidemiology

Prevalence of osteoporosis in postmenopausal women visiting police and services hospital, Peshawar, NWFP.
Zahoor, Shafaq; Ayub, Umar
Police and Services Hospital - Department of Gynaecology and Obstetrics
JPMI - Journal of Postgraduate Medical Institute 2010; 24 (1): 4-8 (29 ref.)
Keywords: Prevalence; Women; Bone Density; Osteoporosis, Postmenopausal-complications; Awareness; Bone Diseases, Metabolic
Abstract: To determine the age of menopause and to find out the prevalence and risk estimation of osteoporosis in outpatient setting. Two hundred and forty postmenopausal women were recruited in a descriptive study. Postmenopausal women visiting outpatient department in Police and Services Hospital Peshawar, N.W.F.P. as patients or their relatives were interviewed on the pattern of preset questionnaire. The study period was from 1st Oct 2006 to 30th March 2007. The proforma covering demographic variables, social history, past medical history, drug history, age of menarche, age at menopause, reproductive history, family history of osteoporosis, was set up. The bone mineral density of heel was measured by bone densitometer Osteoporosis was defined on basis of WHO criteria. The mean age of menopause observed was 49.1 +/- 5.8 years. Early and late onset of menopause was associated with development of osteoporosis, while normal onset of menopause was found to be linked with osteopenia or bone mineral density remained normal. Only 14.48% women had normal bone mineral density. Approximate forty four percent postmenopausal women were suffering from osteopenia and 24.5% were having T-score in osteoporotic range. There is intense need to make women aware of osteoporosis, and its complications in form of fractures and lack of mobility. Osteoporotic bones can never be restored, so there should be early screening of menopausal women.

Palliative Care

How many more patients to die inhumanely without palliative care in Sudan?
Awad, Ishraga Mohamed Ali
E-mail: ishraqa2002@aol.com
Keywords: Patient Care; Death; Needs Assessment; Pain, Intractable; Neoplasms-mortality
Peptic Ulcer

epidemiology

Frequency of peptic ulcer disease in patients of dyspepsia an analysis of upper gastrointestinal endoscopy.
Anwar, Syed Onaiz; Ambreen, Shumaila; Ashraf, Hafiz Muhammad
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Combined Military Hospital Multan
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 26-29 (15 ref.)
Keywords: Dyspepsia; Endoscopy, Gastrointestinal; Prospective Studies
Abstract: To evaluate the frequency of peptic ulcer disease in patients of dyspepsia on upper gastrointestinal endoscopy. Descriptive study. The study was conducted at Combined Military Hospital, Multan between 20th Feb, 2006 to 26th May, 2006. A convenient non probability sampling was done and one hundred patients were selected from out patient department presenting within six months of dyspeptic symptoms. They were all subjected to upper gastrointestinal endoscopy. Of all patients 61% [n=61] were males and 39% [n=39] were females with age ranging between 20 - 45 years. Study revealed functional dyspepsia [76%], duodenal ulcer [11%], gastric ulcer [4%] and esophagitis including gastoesophageal reflux disease [9%]. This showed an overall frequency of peptic ulcer disease to be 15% in the studied population. Peptic ulcer disease is a common structural cause of dyspepsia and was responsible for 15% of dyspepsia.

Phacoemulsification

adverse effects

Posterior capsule tear in phacoemulsification of posterior polar cataracts and uncomplicated cataracts.
Ahmed, Salahuddin; Fayyaz, Muhammad; Naz, Muhammad Afzal; Ahmed, Sabihuddin; Shoaib, Khawaja Khalid
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Combined Military Hospital
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 99-103 (25 ref.)
Keywords: Cataract Extraction-adverse effects; Retrospective Studies; Treatment Outcome; Lenses, Intraocular
Abstract: The aim of our study was to document the difference in the incidence of posterior capsule tear in phacosurgery of the posterior polar cataract and uncomplicated cataract and to report the visual outcomes of these cases. A quasi-experimental study. CMH Rawalpindi, from Mar 2004 to Mar 2007. The medical records of all patients who had Phacoemulsification surgery during the study period were retrospectively analyzed. Only patients with posterior polar cataracts and uncomplicated cataracts were included. The data of eyes, which developed posterior capsule tear, were further analyzed. Hydrodissection was not done in the eyes with posterior polar cataracts instead gentle hydrodileneation and viscodissection was done. The incidence of posterior capsule tear and the visual outcome were recorded in the two groups. Out of the 2110 eyes of 1750 patients included in the study, 1735 patients [99.16%] had uncomplicated cataracts [2089 eyes/ 99.001%] and 15 patients [0.86%] posterior polar cataract [21 eyes/ 0.99%]. Posterior capsule rupture occurred in 33 eyes [1.56%] of all study patients. It was significantly high in patients with posterior polar cataract 7 cases [PP group] out of 21 eyes [33.33%] than in eyes with uncomplicated cataract 26 [UC group] out of 2089 eyes [1.24%] [P value <0.001]. The corrected visual acuity significantly improved inpatients of both groups; 6/12 or better in 21 eyes [80.76%] of 26 eyes in UC group and 5 eyes [71.4%] of 7 eyes in PP group postoperatively. Posterior capsule rupture occurred more frequently in posterior polar cataract than uncomplicated cataract. If managed by experienced surgeon, the visual outcome is good in both the groups.

Physician-Patient Relations

What do patients expect from their physicians?
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Tehran University of Medical Sciences - Imam Khomeini Hospital Complex
Keywords: Physicians; Questionnaires; Patients
Abstract: To identify the most important expectations that patients have from their physicians. We collected data from 190 hospitalized and 201 ambulatory patients [response rates 88% and 93% respectively]. We used random sampling for selection of hospitalized patients and systematic sampling for the ambulatory ones. The questionnaire consisted of 18 different expectation items categorized in 5 domains. The participants scored each item from 1 ' to 9
using a VAS scale and ranked domains based on their importance. We analyzed the data using univariate and regression analyses. Among the ambulatory patients, the mean +/- standard error of the most important expectations was as follows: competency [8.9 +/- 0.01], courteousness [8.8 +/- 0.04], consultation in case of need [8.8 +/- 0.04], clear explanation of the disease [8.8 +/- 0.05] and attentiveness [8.8 +/- 0.04]. In hospitalized patients, the following items were the most important: competency [8.4 +/- 0.08], courteousness [8.4 +/- 0.09], availability of physician [8.4 +/- 0.09], consultation in case of need [8.2 +/- 0.11], setting following appointments [8.2 +/- 0.1], and disease follow-up [8.2 +/- 0.09] . In both groups, the most important domain of expectations was [competency and quality of care] followed by [availability] in hospitalized and [giving information and patient autonomy] among ambulatory patients. Our findings are similar to what reported in the literature from other countries and cultures. In addition to physician expertise and knowledge, patients value giving information and efficient doctor-patient relationship.

**Piperidines**

**therapeutic use**

**Pretreatment with remifentanil is associated with less succinylcholine-induced fasciculation.**
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**Middle East Journal of Anesthesiology** 2010; 20 (4): 515-519 (22 ref.)
**Keywords:** Piperidines-adverse effects; Succinylcholine-adverse effects; Fasciation-drug therapy; Prospective Studies; Double-Blind Method; Treatment Outcome
**Abstract:** Succinylcholine is a popular muscle relaxant and one of its most common side effects is muscle fasciculation. The purpose of this study was to evaluate the efficacy of remifentanil in preventing succinylcholine-induced fasciculation in patients undergoing general anesthesia. In prospective, double blind study, 60 ASA I and II patients were randomly assigned into two groups [30 each] to receive either remifentanil 1 micro g/kg [Group R], or saline 3 ml [Group S] as a pretreatment agent, one minute before induction of general anesthesia by propofol, fentanyl, and 1.5 mg/kg succinylcholine. The duration and the intensity of fasciculation were assessed using a four-point rating scale. Data were analyzed by Mann-Whitney U-test, Fisher exact test and Student-t-test using SPSS software. In the remifentanil group the duration [p<0.001] and the intensity [p<0.001] of fasciculation were lower compared to the saline group. However the incidence of bradycardia was higher in the remifentanil group in comparison to the group which received normal saline. Our findings indicate that remifentanil can reduce the duration and the intensity of succinylcholine induced fasciculation. However, it induces greater bradycardia.

The use of remifentanil in general anesthesia for cesarean section in a parturient with severe mitral stenosis and pulmonary edema.
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**Middle East Journal of Anesthesiology** 2010; 20 (4): 585-588 (24 ref.)
**Keywords:** Mitral Valve Stenosis; Pulmonary Edema; Cesarean Section; Anesthesia, General; Pulmonary Artery; Blood Pressure; Treatment Outcome
**Abstract:** Valvular heart diseases have adverse effects on hemodynamic condition in the parturients during pregnancy. Cesarean section with an opioid based general anesthesia has been used to alleviate these deleterious effects. We hereby describe the effective application of remifentanil, for cesarean section under general anesthesia, in a 30 yr old primigravida suffering of severe multivalvular heart disease and pulmonary hypertension presenting with pulmonary edema who was in active labor and without neonatal respiratory depression.

**Pistacia**

**In vivo efficacy of gum obtained pistacia atlantica in experimental treatment of cutaneous leishmaniasis.**
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**Iranian Journal of Public Health** 2010; 39 (1): 36-41 (22 ref.)
**Keywords:** Phytotherapy; Plant Extracts-therapeutic use; Leishmaniasis, Cutaneous-therapy; Leishmania major; Treatment Outcome; Mice, Inbred BALB C
**Abstract:** Recent circumstantial evidences are suggesting that an increasing number of Iranian patients with cutaneous leishmaniasis are unresponsive to meglumine antimoniate [Glucantime]. Pistacia atlantica is native plant in Iran [central, western, and eastern regions]. Gum obtained Pistacia atlantica has been reported to possess considerable in vitro antimicrobial activity. In this study, we aimed to investigate antileishmanial activity of P. atlantica.
Male BALB/c mice were inoculated subcutaneously 2x10^6 L. major Promastigotes [MHROM/IR/75/ER] at the base of tail in 2007. Mice were randomly divided into 3 groups, in group 1 Glucantime was administered to the BALB/c mice in regimen of 60 mg per kg of body weight for 28 days by intraperitoneal injections per day, in group 2 the gum of P. atlantica var. Kurdica were tested by rubbing of local lesions for 28 days, group 3 infected but non-treated. Comparisons of treated groups and untreated group were done by two-way analysis of variance [ANOVA] Topically rubbing administration of gum obtained P. atlantica var. kurdica daily for 28 days like Glucantime decreased skin lesion size in the BALB/c mice infected with L.major compared with that in the control [P< 0.01]. Treatment BALB/c mice with gum obtained P. atlantica var. kurdica and Glucantime causes decrease number of parasitologically positive mice [P< 0.05]. Our results show that gum obtained P. atlantica var. kurdica can be used for controlling cutaneous leishmaniasis caused by L.major and inhibiting development of cutaneous leishmaniasis lesions.

**Pleural Effusion**

etiology

Frequency of causative factors for pleural effusion: a hospital based study.

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PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 33-36 (18 ref.)

Keywords: Pleural Effusion-diagnosis; Tuberculosis, Pleural; Biopsy

Abstract: To determine the frequency of various causative factors of pleural effusion in adults. Descriptive study. Study was done in the Combined Military Hospital Attock and PAF Hospital Faisal Karachi from March 2006 to March 2008. Combined Military Hospital, Attock and PAF hospital Faisal Karachi. One hundred and fifty patients of clinical signs of pleural effusion, were selected and then, further classified in to transudative and exudative variety by carrying out pleural fluid routine testing and using Light's criteria . Later the final etiological diagnosis was made with the help of appropriate laboratory tests. Out of total 150 patients who were studied, 123 patients were found to have exudative effusions whereas 27 cases had transudative effusion. A total of five 5 patients [3.33%] were lost to follow up. Three patients were out of exudative variety and 02 were from transudative variety. Out of 120 patient of exudative pleural effusion, 70[58.2%] had tuberculosis, 28[23.2%] had malignancy, 12[10%] had pneumonia, 5[6%] were uraemic, 2[1.6%] had pulmonary embolism, and rheumatoid arthritis, Systemic lupus erythematositis and liver abscess were causative factors in 1[0.8%] each patient. Out of transudative effusions, 14[56%] had congestive cardiac failure, 5[20%] had cirrhosis liver, 4[16%] had nephrotic syndrome and 1[4%] each had cardiac tamponade and myxoedema. The most common cause of pleural effusion remains tuberculosis.

**Pneumoconiosis**

Inhalational lung disease.

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Keywords: Occupational Diseases; Anthracosis; Asbestosis; Berylliosis; Byssinosis; Silicosis; Tomography, X-Ray

Abstract: Inhalational lung diseases are among the most important occupational diseases. Pneumoconiosis refers to a group of lung diseases result from inhalation of usually inorganic dusts such as silicon dioxide, asbestos, coal, etc., and their deposition in the lungs. The resultant pulmonary disorders depend on the susceptibility of lungs; size, concentration, solubility and fibrogenic properties of the inhaled particles; and duration of exposure. Radiographic manifestations of pneumoconiosis become apparent several years after exposure to the particles. However, for certain types of dusts, e.g., silicone dioxide crystal and beryllium, heavy exposure within a short period can cause an acute disease. Pulmonary involvement in asbestosis is usually in the lower lobes. On the contrary, in silicosis and coal worker pneumoconiosis, the upper lobes are involved predominantly. For imaging evaluation of pneumoconiosis, high-resolution computed tomography [CT] is superior to conventional chest x-ray. Magnetic resonance imaging [MRI] and positron emission tomography [PET] scan are helpful in those with suspected tumoral lesions. In this essay, we reviewed the imaging aspects of inhala-tional lung disease.
Polycythemia Vera

complications

Mobile right heart thrombus with pulmonary embolism in a patient with polycythemia rubra vera and splanchnic vein thrombosis.

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Heart Views 2010; 11 (1): 16-20 (13 ref.)
Keywords: Thrombosis; Pulmonary Embolism; Heart Diseases; Splanchnic Circulation; Echocardiography
Abstract: Splanchnic vein thrombosis in patients with polycythemia rubra vera is well-known. Development of mobile right heart thrombus in these patients has not been reported previously. We describe a young patient with Polycythemia rubra vera and splanchnic vein thrombosis with ischemic bowel who underwent small bowel resection. He developed a large mobile right atrial thrombus and bilateral pulmonary embolism. He also had upper gastrointestinal bleed. His management was complicated and challenging due to multiple risk factors and co-morbid conditions. Thrombolysis was contraindicated and he refused surgical intervention. He was treated with anticoagulation with complete resolution of right atrial thrombus.

Porifera

Diversity of culturable actinobacteria isolated from two Red Sea sponges.

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Suez Canal University Medical Journal 2009; 12 (1): 41-46 (34 ref.)
Keywords: Indian Ocean; Actinobacteria-isolation and purification; Molecular Conformation; Culture Media
Abstract: This study describes actinobacteria isolated from two Red Sea sponges collected from Ras Mohammed, Sinai, Egypt. Traditional aerobic plate culture and molecular identification of the 16S rDNA region were used for this purpose. A total of 35 actinobacteria were isolated using media selective for actinobacteria. 16S rRNA gene sequence analysis of alkaloidproducing isolates revealed bacteria with phylogenetic affiliations to Actinobacteria, Bacteroidetes, and Firmicutes. The phylogenetic analysis of actinobacterial isolates showed that the isolates belonged to the genera Nocardiopsis sp., Kocuria sp., Curtobacterium sp., Micrococcus sp., Salinispora sp., and Brevibacterium sp. To our knowledge, this is the first study of the culturable actinobacteria isolated from a marine sponge from the Red Sea. In addition, our work provides an excellent resource of several candidate bacteria for production of novel pharmaceutically important compounds.

Post-Dural Puncture Headache

Does postdural puncture headache left untreated lead to subdural hematoma? Case report and review of the literature.

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American University of Beirut Medical Center - Sahel General Hospital - Department of Anesthesiology and Neurosurgery
Middle East Journal of Anesthesiology 2010; 20 (4): 483-492 (67 ref.)
Keywords: Spinal Puncture-adverse effects; Hematoma, Subdural-etiology; Anesthesia, Spinal-adverse effects; Anesthesia, Epidural-adverse effects; Early Diagnosis
Abstract: The patient was a 39-year-old pregnant woman who was scheduled for cesarean section. Spinal anesthesia was induced using a 26-gauge needle with an atraumatic bevel. Postoperatively, the patient developed cranial subdural hematoma manifesting as severe non-postural headache, associated with right eye tearing, fifth cranial nerve palsy and left hemiparesis. The diagnosis was confirmed by computed tomography scan. The patient was managed by careful neurological follow-up associated with conservative treatment and recovered fully after 12 weeks. Our report reviews the literature on 46 patients who developed a postdural puncture headache complicated by subdural hematoma following spinal or epidural anesthesia. It is possible that postdural puncture headache left untreated may be complicated by the development of subdural hematoma. Patients developing a postdural puncture headache unrelieved by conservative measures, as well as the change from postural to non-postural, require careful follow-up for early diagnosis and management of possible subdural hematoma. [c] 2005 Elsevier Ltd. All rights reserved.
Postoperative Complications

Unexpected postoperative seizure after mastoid surgery. a case report.
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Middle East Journal of Anesthesiology 2010; 20 (4): 597-598 (4 ref.)
Keywords: Seizures; Mastoid-surgery; Postoperative Care
Abstract: Postoperative seizures [expected after neurosurgery] are rare events. When they do occur, they are usually attributable to an identifiable drug reaction, a metabolic or neurological event. We report a case of postoperative seizure in postanesthesia care unit. A 19-yr-old female, 48 kg, was admitted to a hospital for left middle-ear surgery. Her medical history, physical examination and laboratory evaluation were normal. Anesthesia was induced with fentanyl 1 micro g/kg, thiopental 5 mg/kg and rocuronium 0.5 mg/kg to produce neuromuscular blockade. Anesthesia was initially maintained with oxygen, nitrous oxide and sevoflurane. Mastoid surgery was completed in 195 minutes after induction. The patient was extubated, but approximately 10 minutes after arrival in recovery she started to generalized tonic clonic convolution. Oxygen was administered by face mask and thiopental 100 mg was administered intravenously. Blood sugar, electrolytes and body temperature were normal. After ten minutes convolution episode was repeated. Because of the continuing seizure activity in a patient at risk of pulmonary aspiration and security of air way, her trachea was intubated by using thiopental and succinyllcholine and ventilation controlled artificially. The seizures were controlled with midazolam and phenytoin. Computerized tomography [CT] showed left temporal cortical suspected hipodensity [Fig. 1] and the patient was transferred to ICU.

Postoperative Nausea and Vomiting

drug therapy

Dexamethasone with either granisetron or ondansetron for postoperative nausea and vomiting in laparoscopic surgery.
Dabbous, Alia S.; Jabbour Khoury, Samar I.; Nasr, Viviane G.; Moussa, Adib A.; Zbeidy, Reine A.; Khouzam, Nabil E.; El Khatib, Mohamad F.; Baraka, Anis S.
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Middle East Journal of Anesthesiology 2010; 20 (4): 565-570 (19 ref.)
Keywords: Laparoscopy; Dexamethasone-therapeutic use; Granisetron-therapeutic use; Ondansetron-therapeutic use; Double-Blind Method; Prospective Studies; Treatment Outcome
Abstract: In a prospective randomized double-blind study, we compared the effectiveness of dexamethasone 8 mg with either granisetron 1 mg or ondansetron 4 mg in the prevention of postoperative nausea and vomiting in patients undergoing laparoscopic surgery. Hundred ASA I and II patients scheduled for laparoscopic surgery were enrolled in the study and 84 patients completed it. Following induction of anesthesia, group I [n = 42] received granisetron 1 mg and dexamethasone 8 mg, group II [n = 42] received ondansetron 4 mg and dexamethasone 8 mg. Nausea and vomiting episodes, pain scores as well as side effects were recorded during the first hour and subsequently during the first 6 and 24 hours postoperatively. Satisfaction scores were obtained at discharge. There was no statistically significant difference between the 2 groups during the 1[st] 24 hours following surgery in regards to pain scores, satisfaction and side effects manifestations. At 0-1 hour interval, 100% of patients in group I and 97.6% in group II had no vomiting. Total response [no moderate or severe nausea and no rescue antiemetics] was 83.3% in group I and 80.95% in group II, and metoclopramide was used in 7.1% of patients in both groups. At 1-6 hours interval, 97.6% of patients in group I and 100% in group II had no vomiting. Total response was 92.8% in group I and 90.9% in group II, and metoclopramide was used in 4.76% of patients in group I and 2.38% in group II. At 6-24 hours no vomiting occurred in 97.6% of patients in group I and 100% in group II. Total response was 95.2% in both groups, and metoclopramide was used in 2.38% of patients in both groups. In conclusion, the combination of dexamethasone 8 mg with either granisetron 1 mg or ondansetron 4 mg following induction of anesthesia in patients undergoing laparoscopic surgery showed no statistically significant difference in antiemetic efficacy with minimal side effects and excellent patient satisfaction.
**Postpartum Hemorrhage**

**drug therapy**

Prostaglandin F2 alpha: an effective alternate to surgical control of postpartum hemorrhage in uterine atony.

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**Keywords:** Postpartum Hemorrhage-surgery; Dinoprost-therapeutic use; Uterine Inertia-drug therapy; Treatment Outcome; Hysterectomy

**Abstract:** To find out the use of Prostaglandin F2 alpha to avoid the surgical control of primary postpartum hemorrhage due to uterine atony and the adverse effects associated with prostaglandin F2 alpha. This was a Quasi-Experimental study carried out in obstetrics and gynecology unit 3 of Khyber Teaching Hospital Peshawar from 1st July 2003 - 30th June 2004. 50 patients having primary post partum hemorrhage due to uterine atony not responding to conventional oxytocics were given systemic and local prostaglandin F2 alpha. Vital signs, estimated blood loss and effect on uterine muscular tone were noted before and after prostaglandin F2 alpha. Surgical interventions were used in patients with continuous profuse vaginal bleeding despite maximum dose of prostaglandin F2 alpha and/or hemodynamic instability of the patients. A semi-structured proforma was used to collect the data. A total of 44 [88%] patients responded well to the drug. Estimated blood loss before prostaglandin F2 alpha was 1000 - 4000ml with mean of 2250.00 + 686.98ml as compared to 416.00 + 294.41ml after prostaglandin F2 alpha was used. Side effects of the drug were mostly self limiting and required symptomatic treatment. No maternal death was recorded. Prostaglandin F2 alpha is an effective drug to control Primary post partum hemorrhage due to uterine atony and avoids surgical interventions in most of the patients. Side effects are minimum, most of which are self limiting.

**therapy**

Management of obstetric hemorrhage.

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**Keywords:** Postpartum Hemorrhage-drug therapy; Postpartum Hemorrhage-surgery; Postpartum Hemorrhage-mortality; Placenta Accreta; Uterine Inertia; Maternal Mortality

**Abstract:** Major obstetric hemorrhage is an extremely challenging obstetric emergency associated with significant morbidity and mortality. Pharmacological treatment of uterine atony has not altered much in recent years apart from the increasing use of misoprostol, although controversy surrounds its advantages over other uterotonics. Placenta accreta is becoming more common, a sequel to the rising caesarean section rate. Interventional radiology may reduce blood loss in these cases. Uterine compression sutures, intrauterine tamponade balloons and cell salvage have been introduced in the last decade.

**Pre-Eclampsia**

Sonographic changes in the maternal liver in cases of pre eclampsia and their relation to the liver function tests.

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Department of Obstetrics and Gynecology

**Keywords:** Liver-ultrasoundography; Liver Function Tests

**Abstract:** To evaluate the sonographic changes in the nternal liver in cases of pre-eclampsia and its relation to the liver fisction tests. Thirty pregnant women with gestational age of 28-34 weeks were selected. They were divided equally into 3 groups: i-group A with severe pre-eclampsia, ii-group B with mild pre-eclampsia and iii-group C normotensives as controls. All cases were subjected to initial ultrasound scanning of the maternal liver and some labotatory liver function tests and then both were repeated one week after delivery and correlated to initial findings. Initial liver scanning showed significantly changes in 70% of group A and in no cases of group B or C. They were in the form of right lobe hypertrophy [mean 16cm], left lobe hypertrophy [mean 11.7cm], periportal halo sign [mean 6mm], gall bladder wall thickness [mean 2.5mm] together with abnormal liver texture and probe compression tenderness. The initial laboratory changes were, also, found only in group A. There were 6 cases [30%] with HELLP syndrome. There were elevations of AST and ALT in 14 cases [70%], LDH in 65%, ALP in 20% and total bilirubin in 20%. All these changes were significant in relation to those of groups BandC. After delivery, the sono graphic changes of the liver

83
were noticeably and significantly improved within the first week after delivery. There were no cases with subcapsular heunatoina whether initially or after delivery. The laboratory findings showed 3 additional cases with HELLP syndrome and such increase [15%] was-insignificant. There was non-significant decrease of liver enzymes and total bilirubin but significant increase of platelet count. The sono graphic changes of the maternal liver in pre-eclampsia might precede its biological abnormalities. So, serial liver scanning should be integrated in obstetric care of such cases.

**diagnosis**

**Homocysteine level as a marker in case of early onset severe preeclampsia.**

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**Bulletin of Alexandria Faculty of Medicine** 2009; 45 (1): 19-23 (37 ref.)

**Keywords:** Biological Markers; Homocysteine-blood; Early Diagnosis

**Abstract:** To determine the association between plasma homocysteine level and early onset severe preeclampsia, and its relevance as a potential marker for predicting preeclampsia. A case control study was conducted on twenty early onset severe preeclamptic pregnant women [group I], and ten normotensive pregnant women as controls [group 11]. The gestational age of both groups ranged between 22 and 26 weeks. Routine laboratory tests, serum creatinine, serum uric acid, platelet count, and plasma homocysteine were measured for both groups. Informed consent of the patients was taken. The laboratory findings showed significantly higher mean serum creatinine, serum uric acid, and plasma homocysteine of group [/] compared to the control group [P=0.00001, P-0.0000], P=0.00001 respectively]. However, the mean platelet count of group [/] was significantly lower than that of the control group [P=0.0000]]. Positive significant correlations were found between plasma homocysteine and systolic blood pressure [r=0. 936, P=0.001], diastolic blood pressure [r=0.954, P=0.001], serum creatinine [r=0.954, P-0.001], and serum uric acid [r=0.963, P0.001]. On the other hand, a negative significant correlation was found between homocysteine and platelet count [r=-0.880, P-0.00]]. Plasma homocysteine concentration is significantly increased in early onset severe preeclampsia and it might contribute in the pathophysiology of the disease. It may be considered as a marker in early onset severe preeclampsia.

**Pregnancy Complications, Neoplastic**

**surgery**

Anesthetic management of 29 week pregnant patient undergoing craniotomy for pituitary macroadenoma. a case report.

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**Middle East Journal of Anesthesiology** 2010; 20 (4): 593-596 (19 ref.)

**Keywords:** Anesthesia; Pituitary Neoplasms-surgery; Craniotomy

**Abstract:** Intracranial space-occupying lesions are rarely present during pregnancy and these disorders seldom require immediate surgical attention. The most common among them is pituitary tumor of which 15-35% has a chance of enlarging during pregnancy. The decision to proceed with surgical intervention depends on the site, size, and type of the tumor, gestational age and neurological signs as well as the patient's wishes. In case of surgery, multidisciplinary approach is essential in perioperative period. Maternal alterations during pregnancy may complicate the anesthetic management of patients and increase monitoring requirements for safety of both mother and fetus. Unfortunately, this may become a challenge to all attending physicians, but especially to the anesthesiologists, as the anesthetic plan must meet the needs of both pregnancy and neurosurgery. Here, we present 29-week pregnant patient undergoing craniotomy for pituitary adenoma and discuss the features of anesthesia providing maternal and fetal safety.

Combined spinal epidural anesthesia for cesarean section in a pregnant patient with rare intracranial neoplasm.

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**Middle East Journal of Anesthesiology** 2010; 20 (4): 581-584 (9 ref.)

**Keywords:** Anesthesia, Spinal; Sphenoid Sinus-pathology; Brain Neoplasms; Anesthesia, Epidural; Cesarean Section

**Abstract:** There are several reports of obstetric emergencies in pregnant patients with malignant intracranial tumors precipitated by worsening of the mother's neurological status which necessitate an early delivery of the fetus before definite therapy can be administered to the mother[1-3]. We describe a patient with a sphenoid sinus tumor who developed loss of vision due to rapid tumor progression necessitating an early delivery of her twin fetuses by cesarean section. The patient had co morbidities and requested to be awake during the surgery, she was managed using a combined spinal epidural anesthesia. The advantages of combined spinal epidural anesthesia as compared to a single shot subarachnoid block, epidural block or general anesthesia are discussed in a pregnant patient with decrease in intracranial compliance.
Pregnancy Trimester, Third

Maternal carriage of group B streptococcus during late pregnancy in Ismailia.
Shabayek, Sarah AA.; Abdalla, Salah M.; Abouzeid, Abouzeid M.H.
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Suez Canal University Medical Journal 2009; 12 (1): 109-114 (32 ref.)
Keywords: Streptococcus agalactiae; Streptococcal Infections; Vaginal Smears; Prevalence
Abstract: Group B Streptococcus [GBS] infection has long been recognized as a frequent cause of morbidity and mortality in newborn infants. Maternal colonization with GBS is the most predominant risk factor for the development of invasive neonatal GBS disease. The purpose of this study was to determine the current colonization rate with GBS and the association of age and parity with the colonization status in our region. One-hundred and fifty pregnant women at 35-40 weeks of gestation attending the Gynecological clinics at Ismailia from September 2007 to April 2008 were enrolled in this study. One vaginal swab was collected from each patient with an informed consent, inoculated in selective enrichment broth medium, subcultured and identified by conventional procedures. A total of 38 specimens [25.3%] were found to be positive for GBS. Colonization rates were significantly higher in pregnant women >/=30 years and after the third pregnancy. The colonization rate was found to be high in our region and thereby constitutes a group of women whose infants are at great risk of invasive infections. Increasing age and parity might enhance the risk of colonization with GBS.

Preoperative Care

psychology

Frequency of anxiety in patients reporting for pre-anesthesia assessment.
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Combined Military Hospital
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 49-52 (22 ref.)
Keywords: Anxiety-epidemiology; Anesthesia-psychology; Cross-Sectional Studies; Questionnaires; Age Factors
Abstract: To study the frequency of anxiety in patients who reported for pre-anesthesia assessment pre-operatively in Combined Military Hospital [CMH] Malir Cantt and to establish any association of anxiety with demographic characteristics. A cross-sectional study. The study was performed in the Deptts of Psychiatry and Anaesthesiology, CMH, Malir Cantt, from October 2007 to March 2008. One hundred consecutive patients who reported for pre-anesthesia prior to planned surgeries were included in the study. Inclusion and exclusion criteria were setup. A questionnaire in Urdu language based on Beck Anxiety Inventory was filled up by each patient. Results were summed and statistically analyzed using SPSS 11.0. A total of 100 patients took part in the study ranging from 18 years to 60 years of age. Twenty nine [29%] were males and 71 [71%] were females. Fifty five [55%] were up to 30 years of age and forty five [45%] above 30 years of age. Forty two percent had no anxiety while 58% had varying grades of anxiety; 35% had mild, 17% moderate and 6% had severe anxiety. The frequency of anxiety in males was 48% as compared to 62% in females [P>0.118]. Moreover 40% of patients up to 30 years of age had anxiety as compared to 80% in patients above 30 years of age [P<0.001]. Anxiety was a common problem in patients who were assessed pre-operatively during pre-anesthesia. Association of anxiety with gender was insignificant while there was a significant association of anxiety with different age groups.

Private Sector

Role of private health sector in Sudan: need for better orientation?
Badr, Elsheikh
Keywords: Public-Private Sector Partnerships; Public Sector

Propofol

Psycho-mimetic manifestations following propofol in day care surgery. case reports.
Bhakta, Pradipta; Mishra, Pragnyadipta; Tawfic, Qutaiba Amir
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Middle East Journal of Anesthesiology 2010; 20 (4): 599-601 (7 ref.)
Keywords: Neurobehavioral Manifestations; Ambulatory Surgical Procedures
Abstract: Propofol has virtually replaced other agents for induction of anesthesia in the ambulatory setting because of its favorable recovery profile. Psycho-mimetic effects, common after use of ketamine, are not so well known for propofol. We present two case reports where patients had two spectrum of abnormal psychological outbreaks after propofol anesthesia. Two healthy young patients were scheduled for short day care procedures under general anesthesia. In both cases anesthesia was induced with propofol plus fentanyl and maintained with inhalational anesthetic agents. After uneventful completion of surgery, both patients were transferred to recovery room where they manifested unusual psycho-mimetic reactions. The first patient had emotional outburst in the form of crying and the other had violent reaction requiring haloperidol for control. Psycho-mimetic reactions can occur after anesthesia using propofol in the short duration day care procedures, in patients with or without preexisting psychiatric problems, needing antipsychotic medications for control.

**Prostaglandin-Endoperoxide, Synthases**

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**Keywords:** Meninges-blood supply; Trigeminal Ganglion; Trigeminal Nuclei; Brain Stem; Acetaminophen; Migraine Disorders; Headache; Rats

**Abstract:** Prostaglandins are synthesized by the activity of cyclooxygenase [Cox] isoforms. The newly discovered isoform [Cox-3] has been shown to be potently inhibited by centrally-acting analgesics, such as acetaminophen [paracetamol] which are widely used in treatment of headache. Vascular headaches such as migraine are hypothesized to be due to neural activation in the trigemino-vascular system. This results in vasodilatation of meningeal blood vessels leading to activation of trigeminal sensory afferents and pain. Headache is thus attributable to a neurovascular interaction. In this study the localisation of Cox-3 has been studied in structures known to be involved in pathogenesis of headache including rat dura mater and trigeminal pathway [trigemino-vascular system]. Fifteen adult male Wistar rats weighing 300-400g were killed by decapitation under brief anaesthesia. The dura mater, the trigeminal ganglia and brain were removed and processed for immunohistochemistry using an antibody raised against Cox-3. Dura mater showed Cox-3 immunoreactivity in meningeal blood vessels, perivascular nerve fibres and mast cells. In the trigeminal ganglia, Cox-3 immunoreactivity was localised in neurons of different sizes and in trigeminal nerve fibres. In the brain stem, Cox-3 was localised in neurons in the trigeminal nuclei. These data provide evidence that Cox-3 is expressed in both neuronal and vascular structures known to be involved in pathogenesis of vascular headache. These data support the hypothesis that Cox-3 may be a central target of paracetamol and related analgesics.

**Prothesis Coloring**

Consistency in color parameters of a commonly used shade guide.
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*SDJ - Saudi Dental Journal [The]* 2010; 22 (1): 7-11 (11 ref.)

**Keywords:** Surface Properties; Materials Testing; Dental Polishing; Color; Colorimetry

**Abstract:** The use of shade guides to assess the color of natural teeth subjectively remains one of the most common means for dental shade assessment. Any variation in the color parameters of the different shade guides may lead to significant clinical implications. Particularly, since the communication between the clinic and the dental laboratory is based on using the shade guide designation. The purpose of this study was to investigate the consistency of the L*a*b* color parameters of a sample of a commonly used shade guide. The color parameters of a total of 100 VITAPAN Classical Vacuum shade guide [VITA Zahnfabrik, Bad Sackingen, Germany] were measured using a X-Rite ColorEye 7000A Spectrophotometer [Grand Rapids, Michigan, USA]. Each shade guide consists of 16 tabs with different designations. Each shade tab was measured five times and the average values were calculated. The delta between the average L*a*b* value for each shade tab and the average of the 100 shade tabs of the same designation was calculated. Using the Student t-test analysis, no significant differences were found among the measured sample. There is a high consistency level in terms of color parameters of the measured VITAPAN Classical Vacuum shade guide sample tested.
Public-Private Sector Partnerships

Public-private partnership scenario in the health care system of Pakistan.
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EMHJ - Eastern Mediterranean Health Journal 2010; 16 (8): 910-912 (7 ref.)
Keywords: Delivery of Health Care; Health Services; Health Promotion
Abstract: Public-private partnerships [PPP] in basic health services delivery aim to improve service provision, such as better coverage, quality and infrastructure of health care, as well as raising the demand for health by the community. This paper outlines some examples of public-private partnerships in Pakistan and examines barriers to further development of such initiatives. We argue that to meet the challenges of globalization and achievement of the Millennium Development Goals, Pakistan needs to improve the health status of its society by promoting and practising PPP in providing health care services.

Pulmonary Circulation

History of medicine. Ibn Nafis - a forgotten genius in the discovery of pulmonary blood circulation.
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National Institute of Unani Medicine
Heart Views 2010; 11 (1): 26-30 (17 ref.)
Keywords: History of Medicine; Medicine, Unani
Abstract: Scientific theories take centuries to come into existence and they keep on evolving. Uncountable intellectual minds work on these theories; some fail to do anything about it; some add a little after tremendous efforts, and some people give remarkable and unforgettable contribution. As far as credit is concerned, the person who is able to prove the theory by his facts and who clears the maximum doubts by his observations, experimentations, facts and reasoning, gets the credit for that theory, and this should be done with honesty. The theory of pulmonary circulation took more than 2000 years to come into existence as we know it today. With the passage of time different people were given credit. Some say that it was given to Galen; some say it was Michael Servetus; others say that Realdu Columbus was the real discoverer; some gave the credit to Ibn Nafis, and finally people gave the credit to William Harvey. But after the rediscovery of Ibn Nafis' manuscript no.62243 titled Sharah al Tashreeh al Qanoon, or "Commentary on the anatomy of Canon of Avicenna" in 1924 AD in Europe, it became clear that Ibn Nafis had described the pulmonary circulation almost 300 years before Harvey, and the historians like Aldo Mieli, Max Mayrhoff, Edward Coppola etc. clearly state that Ibn Nafis is the real discoverer of the pulmonary circulation and that he should be given the credit for the discovery of the pulmonary circulation.

Radius Fractures

therapy

Treatment of unstable distal radial fracture using locked plate.
Abu Elnasr, Khaled M.; Radwan, Mohamed A.; Abdel halem, Khaled S.; Abo Elfadl, Sameh M.
Suez Canal University - Faculty of Medicine - Department of Orthopedic surgery
Suez Canal University Medical Journal 2009; 12 (1): 181-185 (27 ref.)
Keywords: Bone Plates; Questionnaires; Follow-Up Studies; Hand Strength; Treatment Outcome
Abstract: Fractures of the distal part of the radius are common. The treatment of these fractures can be challenging. The aim of treatment is to gain anatomical reduction and early mobilization. Twenty-five patients underwent open reduction and internal fixation of an inadequately reduced distal radial fracture with use of the volar locking plating system. Patients were enrolled in the present study three months after the fracture on the basis of strict entry criteria and were evaluated three, six and twelve months after surgery. Outcome measures included radiographic parameters, grip strength, lateral pinch strength, wrist range of motion, and the Michigan Hand Outcomes Questionnaire. The mean age at the time of the study was 49 years. According to the A.O classification there were 11 patients [type A fracture], 8 patients [type B fracture] and 6 patients [type C fracture]. Radiographic assessment showed that the plating system maintained anatomic reduction at the follow-up periods, at the time of the twelve-month follow-up. The volar locking plating system appears to provide effective fixation when used for the treatment of initially inadequately reduced distal radial fractures and allow early mobilization.
Receptors, CCR3

A highly specific biomarker for early diagnosis and treatment of neovascular age-related macular degeneration.
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Iran University of Medical Sciences - Rassoul Akram Hospital
Keywords: Macular Degeneration-diagnosis; Macular Degeneration-drug therapy; Early Diagnosis; Treatment Outcome

Respiratory Function Tests

Pulmonary functions in normal school children in the age group of 6-15 years in North India.
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Dayanand Medical College - Department of Pediatrics
Keywords: Students; Schools; Questionnaires; Spirometry; Reference Values; Cross-Sectional Studies
Abstract: Lung function tests have become an integral part of assessment of pulmonary disease. As few studies on pulmonary function tests have been carried out in young children in India, the study was carried out in normal urban and rural school children in Ludhiana district of North India to determine pulmonary functions in the age group 6-15 years and to find its correlation with regards to age, sex, height and weight. The study group included 600 normal children between 6-15 years age from different urban and rural schools in the region. A preformed questionnaire was interviewed and detailed general physical and systemic examination was done. Pulmonary function tests were measured by using Micromedical Gold standard fully computerized portable auto spirometer [Superspiro Cat No. SU 6000]. The present study shows, all the three independent variables [age, weight and height] have linear positive correlation with lung function parameters, both for boys and girls. Lung function values in boys were significantly higher as compared to that of girls. Urban children had higher lung function parameters than rural children except IRV, FEF[25%]. Among all anthropometric parameters, height was the most independent variable with maximum coefficient of correlation. Equations derived from the present study for estimation of the expected values of lung function will help to interpret the observed lung function values in children of North India.

Retinal Artery Occlusion

Central retinal artery occlusion in a patient with metabolic syndrome x.
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Clinic Centre - Clinic of Ophthalmology
Keywords: Metabolic Syndrome X; Fluorescein Angiography; Stroke
Abstract: To report a case of central retinal artery occlusion [CRAO] in a patient with metabolic syndrome X. A 64 year-old-man presented with abrupt, painless, and severe loss of vision in his left eye. Indirect ophthalmoscopy disclosed signs compatible with CRAO and laboratory investigations revealed erythrocyte sedimentation rate of 74 mm/h, C-reactive protein [CRP] level of 21 mg/l, hyperglycemia, hyperuricemia, hypertriglyceridemia and hypercholesterolemia. Fluorescein angiography and immunological studies excluded other systemic disorders. The patient met the full criteria of the National Cholesterol Education Program for metabolic syndrome X. In addition to different vascular complications such as stroke, and cardiovascular disease, metabolic syndrome X may be associated with retinal vascular occlusions.

Retinal Neovascularization

diagnosis

An automated tracking approach for extraction of retinal vasculature in fundus images.
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Shahid Chamran University - Engineering Faculty - Computer Engineering Group
Keywords: Fundus Oculi; Ophthalmoscopes; Retinal Vessels; Sensitivity and Specificity
Abstract: To present a novel automated method for tracking and detection of retinal blood vessels in fundus images. For every pixel in retinal images, a feature vector was computed utilizing multiscale analysis based on Gabor filters. To classify the pixels based on their extracted features as vascular or non-vascular, various classifiers including Quadratic Gaussian [QG], K-Nearest Neighbors [KNN], and Neural Networks [NN] were investigated. The accuracy of classifiers was evaluated using Receiver Operating Characteristic [ROC] curve analysis in addition to sensitivity and specificity measurements. We opted for an NN model due to its superior performance in classification of retinal pixels as vascular and non-vascular. The proposed method achieved an overall accuracy of 96.9%, sensitivity of 96.8%, and specificity of 97.3% for identification of retinal blood vessels using a dataset of 40 images. The area under the ROC curve reached a value of 0.967. Automated tracking and identification of retinal blood vessels based on Gabor filters and neural network classifiers seems highly successful. Through a comprehensive optimization process of operational parameters, our proposed scheme does not require any user intervention and has consistent performance for both normal and abnormal images.

Retinitis Pigmentosa

Combined occurrence of diabetes mellitus and retinitis pigmentosa.
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Al Sabah Hospital - Department of Medicine
Annals of Saudi Medicine 2010; 30 (1): 70-75 (24 ref.)
Keywords: Diabetes Mellitus; Comorbidity; Polydactyly; Syndrome
Abstract: The combined occurrence of diabetes mellitus [DM] and retinitis pigmentosa [RP] is rare. It has been reported in the form of four different syndromes that are inherited in an autosomal recessive fashion. We describe two cases of DM and RP occurring together. The first case was a 35-year-old male who presented with insulin-treated diabetes, obesity, hypertension, polydactyly, normal cognitive functions, an ataxic gait, blindness secondary to RP, dyslipidemia, impaired renal function, and multiple renal cysts. He was diagnosed clinically as having Bardet-Biedl syndrome. The second case was a 34-year-old male who presented with insulin-resistant diabetes, hypertension, blindness secondary to RP, deafness, normal cognitive functions, primary infertility, renal, and liver impairment. He was diagnosed clinically as having Alstrom syndrome. Because of overlapping clinical manifestations and the cost and time involved in genetic studies, clinical criteria can be used for diagnosis and as a guide for genetic mapping in these patients.

Rhabdomyosarcoma

genesic

NM-23 gene expression and proliferative activity as prognostic indicators in rhabomyosarcoma.
El Sheikh, Samar Mohamed
Alexandria University - Faculty of Medicine - Department of Pathology
Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 141-148 (44 ref.)
Keywords: Neoplasm Metastasis; Gene Expression; Ki-67 Antigen-blood; Prognosis; Genes, Tumor Suppressor
Abstract: To determine nm-23 expression and percentage of Ki-67 labeling index and to correlate these findings with other prognostic parameters, in rhabomyosarcoma cases [RMS]. Specimens of 25 cases of rhabomyosarcoma were studiedformm-23 antigen immunohistochemically. For evaluation of proliferative activity of tumors, mitotic figures and Ki-67 labeling index were investigated. Allfindings were analyzed statistically. Fifteen patients were embiyonal rhabomyosarcoma and ten cases were alveolar rhabomyosarcoma. Four JM1zents [16%] were stage 1, two [8%] were stage 2, nine [36%] were stage 3 and ten [40%] were stage 4. The percentage of nm-23 positivity was 52%. A significant association was found between nm23 expression and metastasis [p=0.010], where 80% of cases with metastasis at the time of diagnosis showed negative nm-23 expression. On linear regression analysis, Nm-23 expression showed significant levelfor prediction of metastasis [p=0.042], while mitotic figures and Ki-67 labelling index did not reach statistically significant level [p=0.619, p=0.062]. These findings suggested that nm-23 expression might be used as a reliable indicator for metastatic potentiality of rhabomyosarcoma. Further larger prospective studies are neededfor identi fication of other prognostic markers specific for RMS to help us better understand the mechanisms involved in the pathogenesis and facilitate the development of novel effective therapies.
## Root Canal Preparation

### The effect of apical termination of Root Canal preparation on postoperative pain [clinical study].
Sharaan, Marwa E.; Aboul Enein, Naguib M.; Rabie, Mohammad I.
Suez Canal University - Faculty of Dentistry
Suez Canal University Medical Journal 2009; 12 (1): 101-104 (26 ref.)
**Keywords:** Pain, Postoperative; Pain Measurement; Tooth Apex

**Abstract:** This study was conducted to evaluate the effect of apical terminus location of the root canal preparation on postoperative pain. Root canal preparation was completed in the first visit for sixty patients. The working length of the root canals were determined electronically by using apex locator and confirmed radiographically. The patients were divided randomly into three main groups according to apical termination of preparation [0.0, 0.5 and 1mm away from the apical foramen]. They recorded pain before treatment, 6, 12, 18, 24 and 48 hours after treatment. They assessed their severity of pain over the first two days following root canal preparation using a modified visual analog scale of [0-9]. Our results showed that Preparation to the apical foramen produced the highest significant level of postoperative pain at most of the time intervals. Otherwise no significant difference was found between the other groups.

### The influence of apical patency on transportation of the Root canal [laboratory study].
Sharaan, Marwa E.; Aboul Enein, Naguib M.; Rabie, Mohammad I.
Suez Canal University - Faculty of Dentistry
Suez Canal University Medical Journal 2009; 12 (1): 105-107 (12 ref.)
**Keywords:** Tooth Apex

**Abstract:** This study was undertaken to evaluate the effect of apical patency on transportation of the apical foramen. Forty extracted human straight single rooted teeth with mature apices were used. The root of each tooth was mounted in a square piece of silicone leaving foramen on top. The specimens were randomly divided into two groups whether patency was established and maintained during preparation or not. Initial and final photographs of apical foramen were taken before and after instrumentation using a stereomicroscope. The images of each specimen [pre and post] were superimposed to determine transportation. No significant difference was found between the studied groups.

## Rotator Cuff

### Role of ultrasound in rotator cuff tears.
Siddiqi, Hammad Ahmad; Mirza, Tariq; Raza, Saleem; Irfan ul Haq
PAF Hospital
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 84-88 (15 ref.)
**Keywords:** Rotator Cuff-ultrasonography; Magnetic Resonance Imaging; Cost-Benefit Analysis

**Abstract:** The study was designed to evaluate the efficacy of ultrasound in rotator cuff tears and to compare it with MRI. Descriptive study. The study was conducted in the radiology department of Combined Military Hospital Rawalpindi from July 2005 to January 2006. Total number of patients was thirty. All of these were above thirty years of age and were referred by clinicians, with shoulder pain for diagnostic workup. Post operative patients were excluded. Ultrasound and Magnetic Resonance Imaging [MRI] were performed on each patient. Same operator performed ultrasound in all patients. Ultrasound [US] and Magnetic Resonance Imaging [MRI] detected equal number of full thickness tears while two partial thickness tears were missed on US. Hypoechoic defect was the most important primary sign while cortical irregularity and fluid in subacromial and subdeltoid busra were the most important secondary signs on US. US was equally effective to MRI in detection of rotator cuff tears. It should be the primary investigation because of its availability, cost effective and real time evaluation provided significant expertise is developed, as it is highly operator dependent.

## Schistosomiasis haematobia

### Urinary schistosomiasis around oyan reservoir, Nigeria: twenty years after the first outbreak.
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Nigerian Institute of Medical Research - Public Health Division
Iranian Journal of Public Health 2010; 39 (1): 92-95 (9 ref.)
**Keywords:** Urine-parasitology; Hematuria; Disease Outbreaks; Disease Reservoirs

**Abstract:** Oyan reservoir, South-West Nigeria was constructed in 1984 to generate electricity but has altered the existing physical, biological and socio-economic environment of the people. This study, carried out between October 2006 and March 2008, aimed at investigating the current status of Schistosoma haematobium infection around the
reservoir. Urine samples from 536 participants in five communities were examined for haematuria using reagent strips and. S. haematobium ova was detected using sedimentation by gravity method. The participants were drawn from Abule Tuntun [n= 115], Ibaro [n= 156], Imala Odo [n= 88], Imala [n= 103] and Apojula [n= 74] communities. Prevalence rates by haematuria were [Abule Tuntun- 33.04%; Ibaro- 73.07%; Imala odo- 60.22%; Imala- 7.77%; Apojula - 39.19%] and by presence of parasite ova were [Abule Tuntun- 39.13%; Ibaro- 83.97%; Imala Odo- 62.5%; Imala-20.39%; Apojula- 54.05%].S. haematobium transmission has been sustained in the reservoir since the outbreak was first reported in 1988. Mass treatment with praziquantel was conducted 8 years ago [2001] in two of the communities. However, the infection has persisted due to lack of pipe borne water and safe waste disposal system.

Scleroderma, Systemic

Preliminary study of cardiovascular manifestations and cardiac severity scale in 58 patients with systemic sclerosis in Iran using the medsgs scale.
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Iran University of Medical Sciences and Health Care Services - Firouzgar Teaching Hospital
Journal of Tehran University Heart Center [The] 2010; 5 (1): 14-18 (22 ref.)
Keywords: Heart Diseases; Signs and Symptoms; Severity of Illness Index; Sex Distribution
Abstract: Cardiac involvement in systemic sclerosis [SSc] is more prevalent than previously thought. In this study, the frequency and severity of cardiovascular involvement were assessed in SSc patients referred to Firouzgar Hospital. Fifty-eight patients with SSc, selected from the data bank of SSc patients, were reviewed for the frequency and severity of 8 organ involvements in this case series. The preliminary severity scale, published by international SSc study groups, was employed for the determination of the severity grade in the cardiovascular system. In the cardiac scoring scale, grade 0 represents normal heart [no cardiac involvement], grade 1 denotes mild involvement [electrocardiography [ECG] conduction defect and a left ventricular ejection fraction [LVEF] of 45-49%], grade 2 signifies moderate involvement [arrhythmia, LVEF = 40-44%], grade 3 indicates severe involvement [LVEF <40%], and grade 4 stands for end stage [congestive heart failure and arrhythmia requiring treatment]. In this study, 24 [41.4%] patients were in the diffuse cutaneous [dcSSc] subset. The female to male ratio was 10.5:1, and the mean duration from symptom onset to diagnosis was 7.35 years for the dcSSc subset and 8.41 years for the limited cutaneous [lcSSc] subset of disease, there being no significant difference. Cardiac involvement in this series was seen in 13 [22.4%] cases; and there was no significant difference in terms of frequency and severity between the two disease subgroups [p value = 0.96 and p value = 0.46 respectively]. Our findings showed that the cardiac involvement in this series was infrequent and that there was no significant difference in the severity of cardiovascular involvement between the two subtypes of SSc in the late stage of the disease.

Seizures, Febrile

diagnosis

Febrile seizures: four steps algorithmic clinical approach.
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Keywords: Risk Assessment; Seizures, Febrile-prevention and control; Algorithms; Spinal Puncture; Risk Factors; Epilepsy
Abstract: Febrile seizures [FS] are the most common form of convulsive phenomena in human being and affect 2% to 14% of children. It is the most common type of seizures that every pediatrician is dealing with. It is the most benign type of all seizures occurring in childhood. There are many debates on how to approach to febrile seizures in pediatric neurorology and there are many possible malpractices in this field. Some of the most common frequent queries are: * How could we differentiate FS from seizures and fever associated with serious infections involving the central nervous system? * When should we refer the affected child for further investigations such as lumbar puncture, EEC, neuroimaging, and routine biochemical studies? * How should we treat FS in its acute phase? * How could we assess the risk for further recurrences as well as other risks threatening the child's health in future? * How could we select the patients for treatment or prophylaxis? * Which medication[s] should be selected for treatment or prophylaxis? Trying to answer the above-mentioned questions, this review article will present a four steps algorithmic clinical approach model to a child with febrile seizures based on the current medical literature.
Self Medication

statistics and numerical data

Irrational use of antibiotics among people residing in Almamoura.
Elsiddi, Heba Atta Almannan; Badr, Elsheikh; Abuzaid, Abeer
University of Alneelain
Keywords: Anti-Bacterial Agents-therapeutic use; Cross-Sectional Studies; Questionnaires; Health Knowledge, Attitudes, Practice; Health Education

Shoulder Pain

diagnosis

Role of MRI and high resolution ultrasonography in evaluation of chronic shoulder pain and shoulder instability.
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Suez Canal University Medical Journal 2009; 12 (1): 7-12 (21 ref.)
Keywords: Joint Instability; Ultrasonography; Magnetic Res onance Imaging; Arthrography; Sensitivity and Specificity; Chronic Disease

Abstract: Shoulder pin and dislocation usually occur more frequent in young athletes, this study was carried out to assess the role of MRI and US in evaluation of chronic shoulder pain and instability of the shoulder joint. 43 patients complaining of chronic shoulder pain and some of them complaining shoulder instability were examined by MRI, MR arthrography and high resolution ultrasonography. All patients had anterior glenohumeral dislocation [41 males, 95.3% and 2 females, 4.7%]. On MR arthrography, the antero-inferior labrum was torn in 35 case "81.4%", the anterior labrum was torn in 4 cases "9.3%" and attenuated in 4 cases "9.3%", while on conventional MRI the percentages were 44.3% [19 case], 4.7% [2 cases] and 4.7% [2 cases] respectively. US depicted full anterior labral tear in 39 of 43 patients. Sensitivity was 92%, and accuracy was 92%. MR arthrography has been proved to increase the sensitivity and accuracy of MRJ for detecting labor-ligamentous complex and rotator cuff tendon abnormalities. Accuracy of US in depiction of labral tears and associated fractures indicates that US can provide a useful information in patients with anterior shoulder instability.

Silicosis

Silica exposure and serum angiotensin converting enzyme activity.
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National Institute of Occupational Health - Occupational Medicine Division
Keywords: Peptidyl-Dipeptidase A-blood; Respiratory Function Tests; Cross-Sectional Studies

Abstract: Silicosis is known in industrial workers for centuries. Till recently, the mainstay of its diagnosis and progress was clinical examination of the respiratory system, pulmonary function test and chest radiography. Several biomarkers such as serum angiotensin converting enzyme [ACE] activity have been examined to determine the extent of silicosis. To elucidate the effect of age, gender, duration of exposure to silica dust, smoking habit, and pulmonary function status on the serum ACE activity among quartz stone workers without disease. A cross-sectional study was carried out on 134 [111 men and 14 women] workers of quartz  stone crushing units were studied. Standard diagnostic criteria were used for diagnosing silicosis and tuberculosis. Pulmonary functions of the participants were also assessed. The mean +/- SD age for participants was 26.1 +/- 6.3 years [26.6 +/- 6.3 for men and 21.9 +/- 4.3 for women]. The mean +/- SD duration of exposure was 1.1 +/- 1.9 years. In the present study, only one case of silicosis and eight cases of tuberculosis were found. The mean +/- SD serum ACE levels for those with and without respiratory disease were 68.44 +/- 11.61, and 66.9 +/- 14.4 IU/L, respectively [p>0.05]. We could not observe any association between serum ACE activity and age, gender, duration of exposure, smoking habits and pulmonary function status. However, elevated levels of serum ACE was found in a solitary case of silicosis.
Simvastatin toxicity

Histological study of the effect of simvastatin on the skeletal muscle fibers in albino rat and the possible protective effect of coenzyme Q 10.
Hassan, Nadia F.; El Bakry, Nadia A.; Shalaby, Nawar M.; Ghobara, Mohamed M.; Bayomy, Naglaa A.
Tanta University - Faculty of Medicine - Department of Histology

Keywords: Muscle, Skeletal-ultrastructure; Microscopy, Electron; Antilipemic Agents; Protective Agents; Ubiquinone-therapeutic use; Rats; Male

Abstract: Simvastatin is a lipid lowering agent. It reduces risk of mortality in persons with coronary heart disease. Some patients treated with simvastatin, have developed liver, kidney and skeletal muscle symptoms. Coenzyme Q10 has a significant antioxidant activity acting as a primary scavenger of free radicals and influences membrane stability in many tissues including skeletal muscle. Was to evaluate the effect of simvastatin drug on the histological structure of skeletal muscle fibers of adult male albino rats and the possible role of coenzyme Q10 [CoQ 10] as a protective agent. 38 adult male albino rats were used and divided into three groups. Group I [control], group II included 10 rats treated with simvastatin for 4 and 12 weeks and group III included 10 rats treated with simvastatin and CoQ 10 orally for 4 and 12 weeks. The gastrocnemius muscle was dissected and prepared for light and electron microscopic study. In rats subjected to high therapeutic dose of simvastatin for 4 and 12 weeks, the gastrocnemius muscle showed variation in size, splitting and focal degeneration of myofibers as well as mononuclear cellular infiltration and increased deposition of collagen fibers in-between muscle fibers. EM revealed mitochondrial degeneration and dilatation of sarcoplasmic reticulum. Mitochondria were markedly accumulated between myofibrils and in subsarcolemmal space. Coadministration of coenzyme Q 10 with simvastatin for 4 and 12 weeks ameliorated most of the above mentioned histological changes in the animals used. Simvastatin drug caused skeletal muscle damage. Coenzyme Q 10 resulted in protection of the skeletal muscle fibers when given concomitantly with simvastatin.

Skin anatomy and histology

Comparative study on the effect of retinoic acid, glycolic acid and salicylic acid on the thin skin of adult female guinea pig, light and electron microscopic study.
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Ain Shams University - Faculty of Medicine - Department of Histology

Keywords: Tretinoin-adverse effects; Glycolates-adverse effects; Salicylic Acid-adverse effects; Skin-ultrastructure; Microscopy, Electron; Guinea Pigs; Female

Abstract: Many products had been used as chemical peeling agents to renew thin skin. Retinoic, Glycolic and Salicylic acids were used in many dermatological diseases with hypdrkeratinization and/or hyperpigmentation. To evaluate and compare the effects of these acids on the thin skin of adult female guinea pig. Twenty animals were used and were divided into four equal groups. Group I served as the control group, whereas the other treated groups were topically applicated daily on shaved area of back skin with Retinoid [0.05%], Glycolic [12%] and Salicylic [10%] acids in Groups II, III and IV, respectively. Thin skin specimens were processed for light and transmission electron microscopic studies. Morphometric and statistical studies were done. Groups II, III and IV showed high significant increase in mean thickness of epidermal nucleated keratinocytes as compared to Control group. Group II showed proliferation hyperkeratosis and acanthosis and shrinkage of the sebaceous glands with decreased sebum production. Group III showed skin peeling by removing superficial layers of epidermis, cytoplasmic and nuclear degeneration with disruption of intercellular junctions and degeneration in melanocytes with marked decrease of melanin. Both Retinoic and Glycolic acids apparently increased the production of collagen and elastic fibers as compared to control. Group IV showed skin peeling mainly by direct action on intercellular cement substance and partially by inducing proliferation hyperkeratosis. Both Retinoic and Glycolic acids showed complementary actions in treatment of hyperpigmentation and as chemical peeling agents. Salicylic acid also is a peeling agent, but its effects could be covered by either Retinoic or Glycolic acids. It is recommended to use combination of both Retinoic and Glycolic acids to give better effects on various skin disorders with hyperkeratinization and hyperpigmentation.
Sphincterotomy, Endoscopic

Role of early pre-cut needle knife papillotomy in achieving successful selective common biliary duct cannulation.
Iqbal, Muhammad
Military Hospital
PAFJM - Pakistan Armed Forces Medical Journal 2010; 60 (1): 45-48 (16 ref.)

Keywords: Common Bile Duct-surgery; Cholangiopancreatography, Endoscopic Retrograde; Treatment Outcome

Abstract: To assess the risks/benefits of performing early pre-cut papillotomy rather than perusing the difficult papilla repeatedly with non-invasive cannulation techniques. Descriptive study. The study was carried out at Combined Military Hospital [CMH] Rawalpindi From January 2007 to February 2008. Eighty three patients who presented for Endoscopic retrograde cholanagio-pancreatography [ERCP] at Combined Military Hospital Rawalpindi during the period starting from January 2007 till February 2008 were studied. Whenever papilla proved difficult for cannulation, no more than 5 attempts in standard non invasive way were made. Similarly no more than 2 inadvertent injections of contrast into pancreatic duct were exceeded to. In such situations, early precut needle knife papillotomy was resorted to as a matter of protocol. Out of total of 83 patients studied, 19.27% underwent early pre-cut needle knife papillotomy. The procedure was successful in 81.25% against the complication rate of 12.5% only. Hence, pre-cut needle knife papillotomy increased the success rate of common bile duct cannulation from 80.73% to 96.38%. ERCP is very effective procedure for palliation particularly in elderly and frail patients. Failed selective duct cannulation in case of difficult papilla can be overcome by performing pre-cut papillotomy at an early stage rather than struggling with standard non invasive techniques which are paradoxically more likely to cause complications as a result of oedema around pancreatic duct orifice.

Spinal Fusion

Outcome of instrumented spinal fusion for chronic low back pain: review of 100 patients.
Qureshi, Muhammad Asad; Pasha, Ibrahim Farooq; Asad, Ambreen; Afzal, Waseem; Malik, Arsalan Sharif; Khalique, Ahmed Bilal; Shah, Mian Qaiser Ali; Aebi, Max
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Combined Military Hospital
PAFJM - Pakistan Armed Forces Medical Journal 2010; 60 (1): 63-68 (39 ref.)

Keywords: Low Back Pain-surgery; Treatment Outcome; Pain Measurement

Abstract: Objective of this study was to evaluate the outcome of instrumented spinal fusion in selected patients with Chronic Low Back Pain [CLBP] in our setup. Quasi-experimental study. Spine Unit, Orthopaedic Department, Combined Military Hospital, Rawalpindi, Pakistan. Jan 2002 to Dec 2007. Consecutive first one hundred patients were selected from spine unit database that underwent instrumented spinal fusion for chronic low back pain lasting more than one year, due to degenerative disease of spine. Average age was 42 years. There were 62 males and 38 females. Diagnosis included; spinal stenosis [26%], failed disc surgery [22%], spondylolisthesis [19%], degenerative disc disease [17%], and instability [16%]. Operations performed; Pedicle Screw Fixation [PSF] with Postero-lateral Fusion [PLF] in 3% patients. Trans Laminar Facet Screw [TLFS] with PLF in 24% patients. Anterior Lumbar Inter-body Fusion [ALIF] in 9% patients. Posterior Lumbar Inter-body Fusion [PLIF] in 40% patients and Trans-foraminal Lumbar Inter-body Fusion [TLIF] in 24% patients. Average follow up was for 30 months. 86% patients had full spinal fusion. 71% patients were fully satisfied with treatment, 28% were partially satisfied. Post-operatively, on average, visual analogue scale [VAS] showed 48 points significant improvement and Oswestry Disability Index [ODI] showed 53 points significant improvement. Instrumented Spinal Fusion is effective in our set up for relieving symptoms and improving functional outcome in selected patients with debilitating Chronic Low Back Pain due to degenerative disease of spine. Single fusion technique is not ideal for all types of patients and surgeon has to be versatile and trained in using different fusion techniques as the situation demands.

Stem Cell Transplantation

The role of autologous limbal stem cell transplantation in ocular surface reconstruction.
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Suez Canal University - Faculty of Medicine
Suez Canal University Medical Journal 2009; 12 (1): 167-172 (10 ref.)

Keywords: Transplantation, Autologous; Bowen's Disease; Pterygium; Cornea-injuries

Abstract: Stem cells are present in all self-renewing tissues and have unique properties. In certain pathological conditions, the limbal stem cells may be destroyed partially or completely resulting in varying degrees of stem cells deficiency with conjunctivalization of the cornea with vascularization. To evaluate the outcome of autologous limbal stem cell transplantation in ocular surface reconstruction. Forty two randomly chosen eyes with partial or complete unilateral limbal deficiency treated by autologous limbal stem cell transplantation. There were 18 males and 24 females
with mean age 46.8 +/- 14.4 years. The indications for intervention included Bowen's disease, primary and recurrent pterygium, contact lens induced keratopathy, persistent epithelial defect and chemical injury. The mean preoperative best corrected visual acuity was 0.49 +/- 0.29. While the mean postoperative best corrected visual acuity was 0.74 +/- 0.21. There was a highly statistically significant difference between the results. Autologous limbal cell transplantation is an effective procedure in reconstructing of the ocular surface for ocular disorders associated with partial or diffuse limbal stem cell deficiency as it could be carried out from the same or contralateral healthy eye. It is a safe technique with minimal complications.

**Stress, Psychological**

**Effect of "perceived job stress" on menstrual cycle pattern among nurses in Ismailia city.**
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Suez Canal University - Faculty of Medicine - Department of Community Medicine
Suez Canal University Medical Journal 2009; 12 (1): 143-148 (22 ref.)
**Keywords:** Nurses; Menstrual Cycle; Questionnaires; Job Satisfaction
**Abstract:** The aim of this survey is to assess the impact of self-perceived job stress on menstrual patterns [length-regularity-period duration] among nurses in hospitals in Ismailia. A self administered questionnaire was distributed among those eligible nurses, the questionnaire included items about socio-demographic characteristics, occupational data, gynecologic/menstrual profile, and the level of stress at work [as perceived by the nurses]. A total of 746 questionnaires were eligible for the final data analysis, among whom, 72.3% were ascertained as having a self-perceived high level of job stress. Self-perceived high job stress was significantly associated with irregular menstrual cycles [OR 4.8, 95% CI: 3.3-7.1] and longer menstrual bleeding periods [more than 7 days] [OR: 2.4, 95% CI: 1.7-3.6], but was not significantly related to long or short menstrual cycles. Also being single, working on irregular work shift, being employed for less than 5 yr was statistically associated with having a longer and irregular menstrual cycle. The present study suggests that nurses' self-perceived job stress may be associated with certain aspects of menstrual dysfunction. Further investigations with prospective follow-up studies, and hormonal measurements are recommended to provide additional insight into the pathophysiological mechanisms of the present findings.

**Surgical Procedures, Operative**

**adverse effects**

**Retained abdominal surgical gauze: report of a case and review of the literature.**
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PAF Hospital Sargodha
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 149-150 (5 ref.)
**Keywords:** Intraoperative Complications; Abdomen-surgery; Gossypium; Cesarean Section-adverse effects

**Thalassemia**

**economics**

**Expenditure to treat thalassaemia: an experience at a tertiary care hospital in India.**
Mallik, S.; Chatterjee, C.; Mandal, Pankaj K.; Sardar, Jadab C.; Ghosh, P.; Manna, N.
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Medical College, Kolkata - Department of Community Medicine
**Keywords:** Thalassemia-therapy; Health Expenditures; Blood Transfusion; Prenatal Diagnosis; Cross-Sectional Studies; Hepatitis B Vaccines
**Abstract:** The medical and economic problem of thalassaemia are considered to be a vast public health problem in the thalassaemia belt countries, emphasizing more on prenatal diagnosis as the solution of the problem. A cross-sectional descriptive study was conducted in the Institute of Haematology and Transfusion Medicine located in Medical College, Kolkata, India to assess the socio-demographic profile, clinical presentation, expenditure for treatment of thalassaemia patients and awareness about cause and prevention of the disease. Thalassaemia patients attended the Govt. setting were mostly from lower socioeconomic status with low level of literacy. Annual expenditure for treatment of thalassaemia ranged from $ 108 to 432; depending on type of treatment with average cost per transfusion was $ 5.2 +/- 2.2. Average 18.5% +/- 14.3 of the total annual income was spent on the treatment for thalassaemia. Average man days or school days lost for the patients was 29.87 +/- 18.5 and 19.07 +/- 12.7 for the accompanying persons. Blood
transfusion and carrier screening facilities should be decentralized to decrease the expenditure for treatment and alleviate the harassment of the families. Folate and calcium tablets, hepatitis B vaccination can be made available at government setting free of cost.

**Thoracic Surgery**

**history**

History of medicine the magnificent century of cardiothoracic surgery. Part 7: myocardial revascularization. "We" is more important than "I". In medicine, the, advances are always the result of many efforts accumulated over the years. Rene Favaloro.

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Hamad Medical Corporation - Department of Cardiology and Cardiothoracic Surgery  
*Heart Views* 2010; 11 (1): 31-37 (13 ref.)  
**Keywords:** History of Medicine; Myocardial Revascularization-history; Myocardial Revascularization; Coronary Artery Bypass-history

**Thrombasthenia**

Intravenous regional analgesia in a patient with Glanzmann thrombasthenia.

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University of Gaziantep - Faculty of Medicine - Department of Anesthesiology and Reanimation  
*Middle East Journal of Anesthesiology* 2010; 20 (4): 589-591 (9 ref.)  
**Keywords:** Anesthesia, Conduction; Platelet Transfusion; Factor VIIa-therapeutic use; Recombinant Proteins-therapeutic use  
**Abstract:** Glanzmann thrombasthenia [GT] is a rare condition of an inherited autosomal recessive gene characterized with bleeding tendency. The condition is rarely met in the OR and therefore it is essential that anesthesiologist be cognizant of the risk involved and be prepared with all necessary precautionary measures. We present a GT case in a 27 year old male with a mass in the antecubital region of right wrist that was successfully excised using the non-invasive intravenous regional analgesia [IVRA]. The use of platelet transfusion and the recombinant factor VIIa, are stressed.

**Thyroid Gland**

**drug effects**

Light and electron microscopic study on the effect of lithium carbonate on the thyroid gland of adult male albino rat.

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**Keywords:** Lithium Carbonate-adverse effects; Thyroid Gland-ultrastructure; Microscopy, Electron; Rats; Male  
**Abstract:** Lithium carbonate is the treatment of choice for acute manic episodes. It is often referred to as an anti-manic drug as it prevents mood swings in patients with manic-depressive disorder. Thyroid disturbances during lithium treatment had been reported. This research was performed to study the effect of lithium carbonate on the thyroid gland of albino rat and the possibility of recovery after drug withdrawal. Thirty adult male albino rats were divided into three equal groups; Group I [Control Group], group II received lithium carbonate at a daily dose of 14.4 rug for each rat for 6 weeks orallyand group III received the same dose of lithium carbonate as group II and then left untreated for another 6 weeks to study the possibility of recovery after the drug withdrawal. The specimens were prepared for light and electron microscopic examination. Sections of lithium carbonate treated rats showed enlarged irregular shaped thyroid follicles with papillary infoldings projecting into the follicular lumena. Detached and desquamated follicular cells were seen in the follicular colloid. The follicular cells showed apparent hyperplasia and bizarre-appearing nuclei. The interstitial tissue showed cellular infiltration, presence of deeply eosinophilic large cells and fibrosis in some specimens. Ultrastructurally, there was cellular debris in the follicular lumena. Some follicles showed dark follicular cells containing electron dense cytoplasm and indistinct organelles. The above structural changes were much less pronounced in group III [Recovery Group]. Lithium carbonate induced histological changes in the thyroid gland of albino rat and most of these changes were seen to be improved after withdrawal of the drug, So, the use of this drug should be justified in clinical situation under direct medical supervision.
Thyroid Nodule

diagnosis

Thyroid nodules in childhood: a single institute experience.
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Shahid Beheshti University of Medical Sciences - Pediatric Surgery Research Center - Department of Pediatric Surgery
Iranian Journal of Pediatrics 2010; 20 (1): 91-96 (33 ref.)
Keywords: Biopsy, Fine-Needle; Retrospective Studies; Thyroid Nodule-pathology; Sensitivity and Specificity; Predictive Value of Tests
Abstract: Thyroid nodules are rare in children. Multiple diagnostic modalities are used to evaluate the thyroid mass. The aim of this study was to determine results of management of thyroid nodules in children with special attention to the role of fine needle aspiration biopsy, [FNAB] in diagnosis. Thirty-two children who underwent surgery for thyroid nodules in Mofid Children's Hospital within 10 years [1996 to 2005] were retrospectively studied. From clinical records we [obtained data about demographic characteristics, clinical manifestations, ultrasonography [USG] findings, and FNAB results, pathological reports, surgical therapy and complications. Data was analyzed statistically for association with thyroid cancer. Twenty-five patients [78.1%] were girls, and 7 [21.9%] boys. Mean age was 10.9 [range 8 to 14] years. 24 [75%] patients had benign and 8 [25%] malignant tumors. 18 [56.25%] nodules were located in the right lobe. Statistical analysis revealed sensitivity, specificity, accuracy, and positive and negative predictive values as follows: 80%, 65%, 25%, and 86% for USG; 35%, 41%, 40%, 18%, and 66% for RNS; 91%, 94%, 90%, 74%, and 96% for FNAB respectively. Clinical judgment as determined by serial physical findings with USG continues to be the most important factor in the management of thyroid nodules in children. FNAB is the most accurate method of investigation and its accuracy is improved by USG guidance.

Tinnitus

drug therapy

Efficacy of betahistine hydrocholride in tinnitus due to noise-induced hearing loss.
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PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 95-98 (19 ref.)
Keywords: Hearing Loss, Noise-Induced; Betahistine-therapeutic use; Placebos; Randomized Controlled Trials as Topic; Treatment Outcome
Abstract: To determine efficacy of betahistine hydrochloride in treatment of tinnitus due to noise-induced hearing loss [NIHL] as compared to placebo. Randomized- controlled trial. This study was carried out at ENT department, CMH Rawalpindi from July 2006 to December 2006. A total of 70 patients of tinnitus due to NIHL, diagnosed on the basis of history, clinical examination and audiometric findings, were randomly divided into two groups of 35 each. Group I, was treated with betahistine hydrochloride 16 mg thrice a day for two months. Group II, the control or placebo group was prescribed a single tablet of Multivitamin thrice a day for the same duration; after taking informed consent. All the subjects were assessed using Visual Analogue Scale [VAS] scores thrice during the treatment i.e. on first visit, after one month [2nd visit] and then after two months [3rd visit]. No statistically significant difference was noted in the loudness of tinnitus, between the two groups from the start of treatment till the complication of therapy. It is concluded that Betahistine hydrochloride is 'not' better than a placebo in its efficacy for the treatment of tinnitus due to NIHL.

Tobacco Smoke Pollution

Effect of passive smoking on the levels of pregnancy associated plasma protein - a in normal rats.
Naveed, Abdul Khalilq; Rahim, Amena; Malik, Maujed Masood; Qamar, Tehmina
Army Medical College
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 13-16 (21 ref.)
Keywords: Pregnancy-Associated Plasma Protein-A; Rats, Sprague-Dawley; Enzyme-Linked Immunosorbert Assay
Abstract: To measure the levels of pregnancy associated plasma protein- A [PAPP-A] in normal rats exposed to cigarette smoke. Experimental interventional study. Army Medical College, Rawalpindi, in collaboration with national institute of health [NIH], Islamabad. Total duration was of 4 weeks. Sixty albino rats of Sprague- Dawley strain
levels of PAPP-A.

without contrast by using the same planning parameters. The ECLIPSE treatment planning system was used with

King Fahad Medical City - Prince Sultan Haematology Oncology Center - Department of Radiation Oncology

Abstract:

Keywords:

Bulletin of Alexandria Faculty of Medicine

Elawadi, Abou Saleh; Bayoumi, Yasser; Alomran, Reem; Abdel Mohiem, Reham; Ismail, Abdulsalam; Alamro, Abdullah

Alexandria University - Faculty of Medicine - Department of Histology

Mahmoud, Sahar A.; Madkour, Somaya A.

Effect of toluene exposure on pulmonary alveolar structure of adult male albino rats. toxicological and histological study.

Keywords: Pulmonary Alveoli-ultrastructure; Microscopy, Electron; Rats

Abstract: Toluene is an aromatic volatile solvent included in widely distributed commercial products like gasoline, paints, glues and thinners. It is largely abused as a neurostimulant agent in adolescents and young adults in low socioeconomic classes. The present work aimed at investigating the effect of long-term toluene administration on the histological structure of pulmonary alveoli of adult male albino rats. It was further extended to evaluate the possibility of recovery after toluene withdrawal. Thirty adult male albino rats [100-120 g] were randomly categorized among 3 equal groups; group I [control group]. Group II: rats were orally intubated with 10 ml/kg body weight of toluene in corn oil at a dose of 650 mg/kg/day, five days per week for 8 successive weeks. Group III [withdrawal group]: rats were subjected to oral ivluene administration in a similar way to group II and for the same period. Then, they were kept free from toluene exposure for the next 4 weeks to test for spontaneous recovery. By the end of the experimental periods, blood samples were collected from all animals for estimation of blood toluene levels by gas chromatography. Then, the rats were sacrificed by decapitation after anaesthesia. Lung specimens were taken from all animals and processed for light microscopic examination using H and E stain, as well as transmission electron microscopic examination. Toluene administration in group II rats resulted in an evident increased in blood toluene levels as compared to the control group. Histologically, toluene exposure resulted in evident alteration of the pulmonary alveolar architecture with focal areas of collapsed alveoli, marked thickening of the inter-alveolar septa along with peribronchial and perivasculart cellular infiltration as well as vascular congestion. Ultrastructurally, type II pneumocytes formed the predominant lining cells of many alveoli and revealed small dense nuclei, and numerous wicoules, while others exhibited rarified cytoplasm and empty lamellar bodies. Increased deposition of collagen and elastic fibers in the inter-alveolar septa was depicted as well. After 4 weeks of toluene withdrawal [group III], an evident decrease in blood toluene levels was enco4nte red. Nevertheless, it was still high in relation to the control levels. Histologically, only mild amelioration of the alveolar lesions was revealed. Some alveoli were still collapsed. The inter-alveolar septa were moderately thickened with increased collagen deposition. Some morphological changes of type Ilpneumocytes were still depicted. Long-term exposure to toluene has the potential to endanger the pulmonary alveolar structure. Therefore, laws and penalties should be legislated to prohibit the abuse of such substance. Public health efforts are recommended to raise the awareness about its hazards particularly among high risk population.

Tomography, X-Ray Computed

Does intravenous contrast agent affect dose calculations of three dimensional treatment planning system?

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Bulletin of Alexandria Faculty of Medicine

Keywords: Contrast Media-administration and dosage; Administration, Intravenous; Head and Neck Neoplasms; Pelvic Neoplasms

Abstract: The use of computed tomography [CT] with intravenous contrast leads to high accuracy in delineating target volumes and organs at risk [OAR] during treatment planning for conformal radiotherapy. The dose calculation algorithm using CT scan depends on the tissue density which is presented by Hounsfield units [HUs]. Due to the high atomic number of injected contrast media, high HU values are obtained during CT scanning thereby the treatment planning system considers it high density tissue. This misinterpretation results in high absorption of photon beams and thus affects the dose calculation. The objective of this study was to determine if the use of intravenous contrast results in significant difference in dose calculations compared to the standard calculation based on non enhanced CT scans. Two sets of planning CTs were taken for the patients after proper immobilization. The images were initially taken without intravenous contrast and then with contrast in the same position and coordinates. Twenty patients included in the study [12 head and neck cancer patients and 8 pelvic cancer patients]. The volume was drawn on the CT with contrast after fusing the images with the CT without contrast. The 3D dose calculations were done on the CT with and without contrast by using the same planning parameters. The ECLIPSE treatment planning system was used with
pencil beam algorithm for dose calculation. The effect of intravenous contrast was tested by calculating the percent change of dose in planning target volume [PTV] and normal structures between the contrast and no contrast CT based calculations. The percentage dose difference between CT non-contrast based calculation and CT contrast based calculation ranges from 0 to 4% with mean difference 0.9 +/- 0.7% with non significant p value 0.5. The mean difference for pelvic tumors was 1.2% while for head and neck tumors 0.8%. Also, the organs at risk did not show any significant difference between contrast and no contrast with mean difference 1.5 +/- 2.1 +/- 2.2%, 1.3 +/- 0.4%, and 0.95 +/- 0.8% in the spinal cord, brain stem, small bowel and rectum respectively. The pelvic tumors showed no significant difference between enhanced CT and non enhanced CT based calculation with p value 0.06, and the same for head and neck tumors with p value 0.09. The three dimensional [3D] treatment planning calculations in head and neck and pelvic tumors based on CT scans with intravenous contrast do not result in statistical significant difference in dose calculations compared to the standard non contrast CT.

**Tongue Neoplasms**

**complications**

Granular cell myoblastoma of tongue: a rare cause of unanticipated difficult intubation.
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Middle East Journal of Anesthesiology 2010; 20 (4): 573-576 (11 ref.)

**Keywords:** Neoplasms, Muscle Tissue; Intubation; Tongue Neoplasms pathology

**Abstract:** We discuss the clinical presentation of a patient with granular cell myoblastoma and the management of an unanticipated difficult intubation with this rare condition. Literature review of similar cases of difficult intubations due to supraglottic masses was performed and the various methods of management have been enumerated. Intubation with direct laryngoscopy may be impossible in 0.05%-0.35% patients due to an undetected supraglottic mass despite an apparently normal pre-operative airway assessment. We report a case of granular cell myoblastoma of the tongue, as a cause of an unanticipated impossible intubation. A 55-year-old ASA III male weighing 75 Kg was taken up for emergency exploratory laparotomy with perforation peritonitis. On preoperative airway examination there was no indication of difficult intubation. After induction of anesthesia [rapid sequence with rocuronium] we performed direct laryngoscopy. There was a mass arising from the base of the tongue because of which no recognizable epiglottis or glottic structure could be identified. Despite repeat laryngoscopy, optimal external manipulation and direct laryngoscopy performed by an ENT surgeon, the airway could not be secured. As no fibreoptic laryngoscope was available, a surgical tracheostomy had to be performed.

**Trachea**

**pathology**

Primary malignant melanoma of the trachea.
Nattout, Mohamad; Fuleihan, Nabíl; Sabra, Omar; Aburizk, Ibrahim; Hamdan, Abdul Latif
Middle East Journal of Anesthesiology 2010; 20 (4): 607-609 (10 ref.)

**Keywords:** Melanoma-diagnosis; Bronchoscopy; Melanoma-therapy; Airway Obstruction; Biopsy

**Abstract:** Tracheal melanomas represent the rarest type of extracutaneous melanomas. The clinical manifestation is similar to other tracheal tumors and ranges from symptoms of airway obstruction such as dyspnea and stridor to other nonspecific symptoms such as hoarseness, cough and hemoptysis. Bronchoscopy is required to draw the origin of the lesion biopsy is needed to establish histologic diagnosis. Treatment consists of either palliative surgery aiming at restoring the airway or tracheal resection and end to end anastomosis. We would like to present here below a rare case of tracheal melanoma and discuss the various diagnostic and therapeutic means.

Tracheal schwannoma: a misleading entity.
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Middle East Journal of Anesthesiology 2010; 20 (4): 611-613 (5 ref.)

**Keywords:** Neurilemmoma-diagnosis; Neurilemmoma-surgery; Neurilemmoma-pathology; Respiratory Sounds

**Abstract:** Primary tracheal tumors are rare with the majority being malignant. Benign lesions are less frequent with primary tracheal schwannomas accounting for less than 0.5% of tracheal tumors. They are more common in females and their clinical presentation is non-specific. Chronic cough, progressive respiratory distress and even asthma-like conditions prevail as presenting symptoms and signs. Laryngotracheal endoscopy reveals a solitary, well encapsulated mass arising most often from the posterior tracheal wall. The diagnosis of tracheal schwannomas is primarily
pathological. Endoscopic excision, sleeve excision or tracheal resection, are all commonly accepted treatment modalities. Proper awareness of these lesions is crucial in the pre-operative work-up of patients presenting with stridor.

**Trachoma**

**diagnosis**

**Eradicating blinding trachoma: what is working?**

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**Keywords:** Trachoma-epidemiology; Trachoma-complications; Chlamydia trachomatis; Corneal Opacity-etiology; Blindness-etiology; Developing Countries; World Health Organization

**Abstract:** Trachoma remains the leading cause of preventable corneal blindness in developing countries. The disease is contracted in early childhood by repeated infection of the ocular surface by C. trachomatis. Initial clinical manifestation is a follicular conjunctivitis which if not treated on timely basis, may lead to conjunctival and eyelid scarring that may eventually result in corneal scarring and loss of vision. Over the past two decades, a remarkable reduction in the prevalence of active trachoma has occurred due to the World Health Organization's [WHO's] program GET 2020 for the elimination of trachoma with adoption of the SAFE strategy incorporating Surgery, Antibiotic treatment, Facial cleanliness and Environmental hygiene. However, patients who already had infection at young age may present with adnexal-related complications of trachomatous scarring that may cause corneal scarring and visual loss. These patients may present with evidence of trichiasis/entropion as well as eyelid retraction. Lacrimal complications may include nasolacrimal-duct obstruction, dacryocystitis and canaliculitis requiring intervention. In addition to the increased risk for corneal scarring, trichiasis/entropion may further increase the risks for microbial keratitis in patients who may have unrecognized dacryocystitis and canaliculitis. Female patients may have more trachomtous-related complications and may present at an early age. Available evidence indicates that SAFE strategy may be effective and on the right track towards achieving GET 2020 goal for the eradication of trachoma.

**Transaminases**

**blood**

**Prevalence of elevated hepatic transaminases among Jordanian patients with type 2 diabetes mellitus.**

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**Keywords:** Prevalence; Diabetes Mellitus, Type 2-blood; Sex Factors; Age Factors; Waist Circumference

**Abstract:** Since the extent of elevation of liver transaminases in type 2 diabetics in Jordan and most of the Middle East is unknown, we estimated the prevalence of elevated liver transaminase levels among patients with type 2 diabetes and determined associated risk factors. This study was performed on 1014 consecutive type 2 diabetic outpatients who attended the National Center for Diabetes, Endocrinology and Genetics in Amman, Jordan. The patients’ age ranged between 26-85 years with a mean age of 56.8 [±9.8]. Three- hundred and fifty three [54.5%] were males with a median age of 58 years [ranging between 26-82 years], and four hundred and sixty one [45.5%] were females with a median age of 57 years [ranging between 28-85 years]. Body mass index, waist circumference, lipid profile, and hepatic transaminase levels were recorded. Ultrasonography was performed in those with elevated alanine transaminase levels. Overall, the prevalence of elevated alanine transaminase [ALT] level was 10.4% [n=105] with the gender-wise prevalence being 12.8% [n=71] in men and 7.4% [n=34] in women. The prevalence of elevated aspartate transaminase [AST] levels was 5.4% [n=56] with the gender-wise prevalence being 5.6% [n=31] in men and 5.4% [n=25] in women. Only 4.5% [n=44] showed elevated levels of both ALT and AST. Male gender [OR=2.35, CI: 1.5-3.8] and high waist circumference [OR=1.9, CI: 1.2-3.2] were associated with increased risk of elevated ALT levels. Younger patients had a higher tendency to have elevated ALT compared to those over 65 years [OR=12.4 for patients aged 25-45 years, and OR=5.8 for those who were 45-65 years old]. Non-insulin use was associated with a high odds ratio for elevated ALT levels [OR=1.7, CI: 1.1 -2.9]. Elevated ALT and AST levels are found in 10.4% and 5.4% of our type 2 diabetic patients respectively. Male gender, younger age, higher waist circumference; as an indicator of central obesity, as well as non insulin use are independent predictors of elevated liver transaminase levels.
Triage

War casualties: recent trends in evacuation, triage and the 'golden hour'.
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PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 129-134 (22 ref.)
Keywords: War; Wounds and Injuries; Emergency Treatment; Resuscitation; Military Medicine; Time Factors
Abstract: Prompt medical treatment and early evacuation is the goal of military medicine in the battlefield. 'Triage' is a process of sorting the casualties according to the severity of injury and the prioritization of treatment. In trauma management 'Golden Hour' is the first sixty minutes or so after injury; this emphasizes that the chances of the victim's survival are the greatest if definitive care is given as early as possible. Our evacuation protocols follow the triage but the time to treatment is beyond sixty minutes. Many Armies have developed evacuation systems which allow the casualty to be seen within this specified time. This has been achieved by streamlining the evacuation chain, extensive incorporation of air transport and training of paramedics in advanced life support measures. In line with the modern trends we need to modernize our own system of casualty evacuation and treatment.

Trochlear Nerve Diseases

diagnosis

Clinical features and outcomes of treatment for fourth nerve palsy.
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Shahid Beheshti University of Medical Sciences - Labbafinejad Medical Center - Ophthalmic Research Center
Keywords: Trochlear Nerve Diseases-etiology; Trochlear Nerve Diseases-surgery; Treatment Outcome; Retrospective Studies
Abstract: To evaluate the clinical features, etiology and outcomes of treatment for superior oblique [SO] palsy over a 10-year period at Labbafinejad Medical Center. A complete ophthalmologic examination with particular attention to forced duction test [FDT] and tendon laxity was performed in all patients preoperatively. The palsy was divided into congenital and acquired types. Overall, 73 patients including 45 male [61.6%] and 28 female [38.4%] subjects with mean age of 19.7 +/- 11.7 [range, 1.5-62] years, were operated from 1997 to 2007. SO palsy was congenital in 56 [76%] and acquired in 17 [24%] cases. The most common chief complaint was ocular deviation [52.1%]. FDT was positive in only 7 [9.7%] cases. Other clinical findings included amblyopia [19.2%] head tilt [13.7%], chin down position [4.1%], facial asymmetry [6.8%] and tendon laxity [2.7%]. Mean preoperative vertical deviation was 16.1 prism diopters [PD] which was decreased to 1.9 PD postoperatively. Mean exotropia and esotropia were 15 and 13.9 PD respectively before the operation and both decreased to 1.5 PD of horizontal deviation postoperatively. The most common type of SO palsy based on Knapp's classification was type 3 [42.5%]. The most common operated muscle was the inferior oblique [83.6%] and the most common type of operation was inferior oblique myectomy [83.6%]. The success rate for initial surgery was 84% and was increased to 96% with a second intervention. The most common form of SO palsy requiring surgical intervention was congenital which occurred most frequently in young males. Most cases of SO palsy can be successfully treated with a single surgical procedure.

Tuberculosis

epidemiology

Burden of tuberculosis-combating drug resistance.
Javaid, Arshad
Lady Reading Hospital - Department of Pulmonology
JPMI - Journal of Postgraduate Medical Institute 2010; 24 (1): 1-3 (12 ref.)
Keywords: Tuberculosis-mortality; Tuberculosis, Multidrug-Resistant
Tuberculosis, Ocular

diagnosis

Rare presentation of definitive ocular tuberculosis in an immunocompetent young patient.
Al Fraikh, Hamad; Al Dahmash, Saad
King Khaled Eye Specialist Hospital - Anterior Segment and Uveitis Divisions
Keywords: Tuberculosis, Ocular-surgery; Young Adult; Polymerase Chain Reaction
Abstract: Ocular tuberculosis is not uncommon ocular presentation in our community nowadays. Rare presentations described mainly in the immunocompromised patients. The diagnosis of ocular TB is presumed in the vast majority of the cases of the intraocular TB. We are presenting a very rare presentation of definitive intraocular TB in a healthy 24-year-old male.

Tuberculosis, Pulmonary

diagnosis

Saudi Guidelines for testing and treatment of latent tuberculosis infection. Joint statement of the Saudi thoracic society, the Saudi society of medical microbiology and infectious diseases, the Saudi association of public health, and the society of family and community medicine.
Al Jahdali, Hamdan H.; Baharoon, Salim; Abba, Abdulllah A.; Memish, Ziad A.; Alrajhi, Abdulrahman A.; Al Barrak, Ali; Haddad, Qais A.; Al Hajjaj, Mohammad; Pai, Madhukar; Menzies, Dick
E-mail: jahdali@yahoo.com
King Saud University for Health Sciences - King Abdulaziz Medical City - Department of Medicine
Annals of Saudi Medicine 2010; 30 (1): 38-49 (96 ref.)
Keywords: Practice Guideline; Tuberculin Test; Tuberculosis, Pulmonary-drug therapy; Risk Assessment; Prevalence
Abstract: Pulmonary tuberculosis is a common disease in Saudi Arabia. As most cases of tuberculosis are due to reactivation of latent infection, identification of individuals with latent tuberculosis infection [LTBI] who are at increased risk of progression to active disease, is a key element of tuberculosis control programs. Whereas general screening of individuals for LTBI is not cost-effective, targeted testing of individuals at high risk of disease progression is the right approach. Treatment of those patients with LTBI can diminish the risk of progression to active tuberculosis disease in the majority of treated patients. This statement is the first Saudi guideline for testing and treatment of LTBI and is a result of the cooperative efforts of four local Saudi scientific societies. This Guideline is intended to provide physicians and allied health workers in Saudi Arabia with the standard of care for testing and treatment of LTBI.

Turner's Syndrome

genetics

Detection of low level sex chromosome mosaicism in turner syndrome by fish.
Nazmy, Nahia A.
University of Alexandria - Medical Research Institute - Department of Human Genetics
Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 215-220 (26 ref.)
Keywords: Sex Chromosomes; In Situ Hybridization, Fluorescence; Karyotyping; Chromosome Banding
Abstract: Turner syndrome [TS] is most commonly due to a 45, X chromosome defect, but is also seen in patients with a variety of X-chromosome abnormalities or 45, X/46,XY mosaicism. The phenotype of TS patients is highly variable, and depends largely on the karyotype. Patients are at an increased risk of gonadoblastoma when a Y derived chromosome or chromosome fragment is present. Since constitutional mosaicism is present in approximately 50% of TS patients, the identification of minor cell populations is clinically important and a challenge to laboratories. The purpose of the present study was the application of fluorescence in situ hybridization [FISH] assay to identify low level mosaicism for an XY or XX cell population for TS patients with monosomy X and also to identify the nature of sex chromosome markers detected by conventional cyto genetic studies. The study included 65 female patients with a clinical suspicion of TS, they were selected from the Genetic Clinic, Medical Research Institute, University of Alexandria. Chromosome analysis by G-banding technique was done. FISH was performed using centromere probes for the X and Y chromosomes. Chromosome analysis by G-banding technique revealed the following results: twenty patients [90.77%] had a 45,X karyotype; mosaicism for a second normal or structurally abnormal X was observed in 27
[41.54%] cases, mosaicism for Y chromosome in 5 [7.69%] cases, 7 [10.77%] had mosaicism involving a marker chromosome; and non mosaic structural abnormalities of the X chromosome was present in 6 [9.23%] patients. To further investigate the possibility of mosaicism in the 20 patients with an apparently nonmosaic 45,X karyotype, and to identify the nature of chromosome markers in the 7 patients carrying a marker, FISH was performed using centromere probes for the X and Y chromosomes. A minor XX cell line was identified in 6 patients, XY mosaicism were identified in 3 cases and the 45, X result was confirmed in 11 samples. FISH analysis performed on the 7 patients with chromosome markers, identified the origin of these markers as K chromosome material in 3 patients, and Y-derived chro,'noso,ne in 4 patients [idic Y with a double hybridization signal corresponding to double centromeric region]. FISH is a useful tool in the detection of low frequency cell lines and identification of the nature of unknown chromosome markers that have important implications for the management of patients with Turner syndrome. FISH as an adjunct to karyotype analysis provides a sensitive, specific, rapid, and informative technique to identify sex chromosome mosaicism in TS patients.

Ultraviolet Raup

adverse effects

The effects of ultraviolet B [UV-B] radiation on the lens in albino rats in different ages and times of exposure.
Abdel Rahman, Gamal M.; El Nahass, Hussein S.; Ali, Amr A.; Salem, Noha A.
Suez Canal University - Faculty of Medicine
Suez Canal University - Faculty of Medicine Journal 2009; 12 (1): 59-66 (25 ref.)
Keywords: Lens-pathology; Histology; Age Factors; Time Factors; Rats
Abstract: To investigate the effects of UVB radiation on the crystalline lens of the rat lens. 100 Sprague-Dawely rats were divided in 4 groups with different ages [3, 6, 10 and 18 weeks] and control one [20 rats in each group]. Exposed 4 groups were irradiated to UVB with wave length 300nm and intensity of 8kj/m2. Each group was divided into 2 subgroups [A and B] according to the time of exposure [15 and 30 minutes]. The control group [C] was divided into 5 rats for each group. One week after exposure, both lenses were removed for morphological changes and for histopathology. Groups were compared by evaluating the difference between exposed and non-exposed lenses. Early cortical cataract [vacuoles] was not detected in all [B] groups, and appeared in all [A] groups As except E4 group. Cortical cataract appeared in both exposed groups and the increased with age. Equatorial cataract was detected in all ages and the incidence increased in rats of [A] groups. Sutural cataract was more in young groups and the incidence increased with time of exposure to UV-B it was not detected in E4 group. Early nuclear and nuclear cataract was more in young ages and increased time of exposure. UV-B has powerful effects on the rat lens and development of different types of cataract, which differs according to the age and time of exposure. The more exposure to UV-B the more the cataract develops.

Ultraviolet Rays

adverse effects

The effects of ultraviolet B [UV-B] radiation on albino rat cornea and epithelial cells.
Abdel Rahman, Gamal M.; El Nahass, Hussein S.; Ali, Amr A.; Salem Noha A.
Canal University - Faculty of Medicine - Departments of Anatomy and Ophthalmology
Suez Canal University Medical Journal 2009; 12 (1): 53-58 (29 ref.)
Keywords: Cornea-pathology; Epithelial Cells-pathology; Histology; Rats
Abstract: To evaluate the influence of UV-B radiation on the cornea and epithelial cells of the albino rat. 100 Sprague-Dawely rats were divided in 4 groups with different ages [3, 6, 10, 18 weeks] and control one. Exposed 4 groups were irradiated to UVB with wave length 300nm and intensity of 8 kj/m2. Each group was divided into 2 subgroups [A and B] according to the time of exposure [15 and 30 minutes]. The control group [C] was divided into 5 rats for each group. One week after exposure cornea was removed to evaluate the histopathological changes. Groups were compared by evaluating the difference between exposed and non-exposed cornea. Exposure to 15 minutes of UV-B showed degenerative changes in all ages and increased with time of exposure. Epithelial hyperplasia was 25% in 6 weeks group exposed to 15 minutes of UV-B and 33.3% with 30 minutes of exposure. In 18 weeks group hyperplasia was 25% after 30 minutes of exposure. Epithelial thinning was detected only in 3 and 18 weeks groups after exposure to 30 minutes of UV-B by 33.3%. Epithelial erosion was 16.6% in 10 weeks group after 30 minutes of exposure. Stromal blood vessels were detected in exposed groups to 30 minutes of radiation in 6, 10 weeks by 16.6% and 41.6%. Stromal edema was detected in all ages exposed to 15 and 30 minutes of UV-B. Exposure to UV-B corneal epithelial and stromal changes which increase with time of exposure.
Urinary Incontinence

etiology

Gender differences in healthcare-seeking behaviour for urinary incontinence in Alexandria. Mohanied, Aida M.; Hassouna, Mohamed E.; Kassem, Mohamed S. Alexandria University - Faculty of Medicine - Department of Community Medicine

Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 177-193 (32 ref.)

Keywords: Quality of Life; Sex Characteristics; Questionnaires; Patient Acceptance of Health Care

Abstract: Urinary incontinence [UI] is a common condition, but previous studies have shown that only about 20% of individuals with UI seek medical care for treatment of their symptoms. The determinants of treatment seeking are not well understood. Little is known about the effect of gender on health care-seeking behaviors. The objective of this study was to determine gender differences in factors associated with patients’ decisions to seek treatment for urinary incontinence. This was a descriptive, hospital based case series study. It was carried out during the first half of the year 2008 in the Urology and Obstetrics and Gynaecology departments of Main University Hospital and El-Shatby University Hospital, Alexandria. As part of purposeful sampling, all participants were selected from the clinic and admission lists. All studied subjects were enrolled by the investigators after signing informed consent and provided they complied with inclusion/exclusion criteria. Data were collected using pre-tested, precoded interview format. In-depth interview was conducted by the investigators themselves to answer the questions because the topic is poorly understood and the research is perception-oriented. We hypothesized that gender differences in treatment seeking for UI would not be explained only by socio-demographic factors, clinical presentation, and symptom impact, but also some important psychosocial factors of the respondent as well. To test the hypothesis, we developed a multivariate logistic regression model for each gender. Information was collected from 353 UI patients out of a total of 374 patients registered in those clinics and admission list during the recruitment period of the study. Thus the response rate was 94.4%. There were 113 [32.0%] males and 240 [68.0%] females. Thus male to female ratio was 1: 2.12. The present study found differences in males and females regarding specific psychosocial factors motivating health care-seeking behaviour. Certain inequality was observed in hospital admission, use of diagnostic procedures, days of hospital stay and surgeries in that they proved less frequent among women. More women suffered from at least one negative impact on their social lives compared to men. Additionally, the impact of UI on sexual life was not associated with seeking treatment for both men and women. The impact of symptoms on quality of life appears to be the main trigger for seeking help for UI in both men and women. After adjustment for confounders, women's decisions to seek treatment for urinary incontinence were significantly associated with mixed type of UI, severe UI, perceptions about underlying causes of UI, attitude towards health care use, worse social impact score and worse diseasespecific quality of life scores. However, illiteracy and self care practices were adversely affect women's care seeking behavior. In men health-seeking was related to the presence of co-morbid condition, severe UI, associated lower urological complaints, satisfaction with medical care offered, high expectation of benefit from treatment and worse disease-specific quality of life scores. Since the present results revealed gender differences in determinants of UI health care seeking behaviour, strategies to enhance care-seeking for urinary incontinence should consider the role of gender in personal knowledge, needs and behaviors for UI management in adults. Educating physicians and the public about the factors associated with treatment seeking as well as the available treatment options may help women and men to seek and receive more timely care for incontinence symptoms.

Urinary Tract Infections

etiology

Diaper type as a risk factor in urinary tract infection of children. Fahimzad, Alireza; Taherian, Masoomeh; Dalirani, Reza; Shamshiri, Ahmadrreza

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Shahid Beheshti University of Medical Sciences - Pediatric Infectious Research Center


Keywords: Risk Factors; Diapers, Infant; Case-Control Studies; Urinary Tract Infections-epidemiology

Abstract: Urinary tract is one of the most common sources of infection in children under the age of two years. Many known and unknown risk factors predispose to this important disease in children. This study was conducted to determine whether using a specific type of diaper plays a role in urinary tract infection [UTI] in girls under the age of 2 years. This case control study was performed in hospitalized children; girls with their first urinary tract infection were selected as cases, and those admitted for other reasons comprised the control group. Two groups were matched for age [+/- 1 month], and other known risk factors for UTI. Type of diapers [superabsorbent, standard disposable and washable cotton], used for these children during six months, from October 2007 to March 2008, were compared in both I groups. 59 matched pair infant girls less than 2 years were selected. It was revealed that in cases with UTI superabsorbent diapers were used more frequently than in controls [Odds ratio =3.29, P-value=0.005] There were no significant differences in other factors like number of diapers used per day, the time between defecation and diaper change, mothers’ educational level, level of family income and mother’s occupation. The use of superabsorbent diapers could be a risk factor for urinary tract infection in infant girls.
Uterine Rupture

Prophylactic internal iliac artery ligation in case of postpartum hemorrhage due rupture uterus [randomized controlled study].

Abdel Naby, Mahmoud; Youssry, Mohamed; Ibrahim, Ahmed; El Rahmany, Hossam
Alexandria University - Faculty of Medicine - Department of Obstetrics and Gynaecology
Bulletin of Alexandria Faculty of Medicine 2009; 45 (1): 1-6 (31 ref.)

Keywords: Postpartum Hemorrhage; Iliac Artery; Ligation; Hysterectomy; Randomized Controlled Trial [Publication Type]

Abstract: To evaluate the role of internal iliac artery ligation as an effective method of controlling postpartum hemorrhage due to lateral uterine rupture. A randomized controlled study was conducted on 50 pregnant women who were admitted to Shatby University Maternity Hospital between June 2006 and August 2008, all of them were diagnosed as post partum hemorrhage due to lateral uterine rupture. The patients were randomly allocated to 2 groups, the ligation group where ligation of internal iliac artery followed by repair of ruptured uterine wall was done [group A], and the repair group, where ruptured uterus was repaired by conventional methods [group B]. informed consent was taken from all patients. The ligation group showed a significant statistical difference when compared with the repair group regarding in-hospital time; amount of blood transfused intro-operatively; duration of intensive care unit stay, need for additional surgical interference such as hysterectomy or additional vaginal haemostasis, and the incidence of complications as disseminated intravascular coagulopathy, and ureteric injury. Internal iliac artery ligation is considered an alternative effective method to hysterectomy in cases of lateral uterine rupture, aiming to decrease maternal morbidity.

Varicocele

surgery

Histological and immunohistochemical changes in the adult rat testes after left experimental varicocele and possible protective effects of resveratrol.

Abdel Dayem, Menna M.
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Cairo University - Faculty of Medicine - Department of Histology

Keywords: Testis-anatomy and histology; Immunohistochemistry; Protective Agents; Stilbenes-therapeutic use; Rats; Male; Proliferating Cell Nuclear Antigen

Abstract: Varicoceles are present in about 30-50% of infertile men. However, the histological changes in the testes are not well-defined. Also, Resveratrol [RES] is a powerful antioxidant used recently in the treatment of infertility with other causes. So, this study aimed to elucidate the histological and immunohistochemical changes of both testes after left experimental varicocele and to evaluate the possible protective role of RES. This study included forty adult male albino rats divided into four equal groups: Control group [I]; sham-operated group [II]; left varicocele group [III] and left varicocele+RES group [IV]. Varicocele was induced by partial ligation of the left renal vein. RES was orally administered to group IV in a dose of 20 mg/kg body weight every day for five weeks. At the end, all animals were sacrificed and testes were excised. Paraffin sections were prepared and stained with HandE, PAS reaction and immunohistochemical staining for proliferating cell nuclear antigen [PCNA]. PCNA-labeling index was calculated to assess spermatogenesis. Left experimental varicocele was shown to affect both ipsi-and contra-lateral testes. The changes in the ipsilateral testes were in the form of irregular degenerated seminiferous tubules with numerous blood vessels and thickened basement membranes. These changes were present in some tubules in the contralateral testes. PCNA-LI values were significantly lower than the control and sham-operated groups. Treatment with RES proved to improve these changes. Left experimental varicocele has deleterious effects on the structure of both testes and supplementation with RES in cases of infertility with varicocele may have a protective effect.

Vascular Endothelial Growth Factors

Vascular endothelial growth factor [Vegf] localization in the mammary gland at various stages of its physiological cycle; a histological and immunohistochemical study.

El Shafei, Mohammad D.; Gamal, Sahar M.; Mostafa, Nadia A.; Abdel Fattah, Lamiaa I.
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Cairo University - Faculty of Medicine - Department of Histology

Keywords: Mammary Glands, Human-physiology; Endothelial Cells; Immunohistochemistry; Rats

Abstract: Vascular Endothelial Growth Factor [VEGF] is a potent angiogenic and vascular permeability enhancing factor under both physiological and pathological conditions including tumor angiogenesis. To study the localization and
intensity of VEGF in the mammary gland at various stages of its physiological cycle. Mammary glands from sixty female albino rats were divided into six groups [10 rats each]: Group I nulliparous, group II early pregnancy, group III late pregnancy, group IV lactating, group V early involution and group VI late involution. Human specimens from five females of variable age [childbearing and post-menopausal] were examined. Animal specimens were subjected to histological study while all specimens were subjected to immunohistochemical detection of VEGF. Morphometric analysis was performed for area% and optical density of positive VEGF reaction. VEGF was detected in epithelial lining of ducts and acini, endothelium of blood vessels as well as some stroma cells and macrophages. It was detected in resting nulliparous rat mammary gland with an increase during early pregnancy that became remarkable in late pregnancy and reached its maximum during lactation. Furthermore, VEGF was also detected in milk within lactating mammary acini. During involution, VEGF decreased progressively and reached a minimum in late involution. Human specimens showed stronger VEGF reaction during childbearing period than in post-menopause. The localization of VEGF in the endothelial cells of blood vessels, epithelium of mammary gland ducts and acini as well as some stroma cells and macrophages denoted that it is secreted by those cells. The increased VEGF in pregnancy and lactation indicates that it plays an important role in the development and function of the mammary gland.

**Ventricular Function**

Pre and post percutaneous transvenous mitral commissurotomy assessment of ventricular functions in severe rheumatic mitral stenosis by tissue doppler imaging echocardiography.

Noor ul Hadi; Hafiz ur Rahman; Hafizullah, Mohammad; Fazal Ghafoor; Faheem, Mohammad; Gul, Adnan Mahmood; Hikmatullah; Hussain, Cheragh; Mehmood ul Hassan; Abbas, Farhat
Lady Reading Hospital - Department of Cardiology
JPMI - Journal of Postgraduate Medical Institute 2010; 24 (1): 63-67 (20 ref.)

**Keywords:** Mitral Valve Stenosis-surgery; Rheumatic Heart Disease; Echocardiography, Doppler

**Abstract:** To evaluate the left and right ventricular functions in patients with rheumatic mitral stenosis by Doppler tissue imaging echocardiography technique before and 24 hours after percutaneous transvenous mitral commissurotomy. A total of 60 patients included in the study. Pre and Post Percutaneous Transvenous Mitral Commissurotomy of Left and Right Ventricular functions were assessed by calculating velocities at Mitral and Tricuspid Valve Annulus by using Tissue Doppler Imaging Echocardiography at Echo Wing of Cardiology unit LRH. The peak systolic velocities improved from 0.07 +/- 0.01 Pre to 0.085 +/- 0.01 Post Percutaneous Transvenous Mitral Commissurotomy with statistical significance [p-value=0.001] at Mitral valve annulus. Similarly early diastole and late diastolic velocities also showed statistically significant improvements at mitral annulus. Pre Percutaneous Transvenous Mitral Commissurotomy early diastolic velocity of 0.075 +/- 0.02 improved to 0.1 +/- 0.02 Post Percutaneous Transvenous Mitral Commissurotomy with a highly significant P-value of 0.001. For late diastole, p-value was also significant [Pre=0.11 +/- 0.02, Post=0.15 +/- 0.03, p-value=0.01]. An analysis of various velocities was also made at individual sites of mitral valve annulus i.e., septal, lateral, inferior and anterior sites. At all these sites, Post Percutaneous Transvenous Mitral Commissurotomy velocities were statistically significant with p-value less than 0.05. Tricuspid annular velocities did not show statistically significant improvements after 24 hours of Percutaneous Transvenous Mitral Commissurotomy. Systolic and diastolic velocities significantly improved after Percutaneous Transvenous Mitral Commissurotomy at mitral annulus, but this change was not observed at tricuspid annulus. It showed that Tissue Doppler Imaging Echocardiography aided in assessment of immediate improvement in left ventricular function after Percutaneous Transvenous Mitral Commissurotomy in patients suffering from severe mitral stenosis and in sinus rhythm.

**Vitreous Detachment**

**drug therapy**

Pharmacologic vitreolysis.

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Iran University of Medical Sciences - Eye Research Center - Rassoul Akram Hospital

**Keywords:** Vitreous Body; Vitrectomy-methods; Vitreous Detachment-enzymology; Plasminogen Activators; Fibrinolysin-therapeutic use; Subtilisins-therapeutic use; Chondroitinases and Chondroitin Lyases-therapeutic use

**Abstract:** The vitreoretinal interface is involved in a wide range of vitreoretinal disorders and separation of the posterior vitreous face from the retinal surface is an essential part of vitrectomy surgeries. A diverse range of enzymatic and non-enzymatic agents are being studied as an adjunct before or during vitrectomy to facilitate the induction of posterior vitreous detachment. There is a significant body of knowledge in the literature about different vitreolytic agents under investigation for a variety of pathologies involving the vitreoretinal interface which will be summarized in this review.
War

Women pose innocent victims of landmines in postwar Iran.
Tehran University of Medical Sciences - Sina Trauma and Surgery Research Center

Keywords: Wounds and Injuries; Women; Death; Retrospective Studies

Abstract: Although in the last few years there has been an increasing attention to the problem of landmines, to date, the implications of women being victims of landmine has not been duly dealt with in the world including Iran, which is estimated to be the second most landmine infested country in the world. Still, provinces by the west border of Iran, 18 years after cessation of Iraq-Iran war suffer from the burden of vast areas, highly infested with landmines. This study aimed to provide a gender focused insight into landmine accidents in. In this retrospective study, women with documented deaths or injuries due to landmine and/or unexploded ordnances [UXO] explosions as documented in their medical records between Jul 1988 [after ceasefire] and Feb 2003 were studied in 5 western provinces of Iran. Data was analyzed by SPSS for Windows Version II.P value under 0.05 was considered statistically significant During the 14-year study period, 252 women from 5 western provinces of Iran were reported to have injuries or death due to landmine and UXOs. All of the victims were civilians and the majority of them [47.6%] had one or more amputations. Most of them were injured in the period between 1994 and 1998. The majority of the patients were young. Women who should take care of themselves as well as their families are more prone to sufferings inflicted by landmines and UXO.

Weight-Bearing

Partial weight bearing; new quantitative approach.
Pasha, Ibrahim Farooq; Abid, Muhammad; Ahmed, Muhammad; Zaidi, Riaz; Ullah, Zaka
Combined Military Hospital
PAFMJ - Pakistan Armed Forces Medical Journal 2010; 60 (1): 73-78 (20 ref.)

Keywords: Fractures, Bone-rehabilitation; Fracture Fixation-rehabilitation

Abstract: The objective of this study was to quantify scientifically the partial weight bearing advice to the patients so that the treating surgeons and treated patients know exactly how much weight they should bear on the treated limb. Descriptive study. The study was conducted at combined military hospital Sialkot and combined military Hospital Quetta from May, 2003 to Dec, 2006. We studied 150 patients who were operated for osteosynthesis in lower limb. We excluded all patients below age 10 years, poly trauma patients operated for bilateral leg fractures, and associated upper limb fractures. Patients were advised to place studied limb on weighing machine and exert required force. Depending upon implant used, quality of fixation and bone density, 5 to 10 kilogram of weight bearing was started two to three weeks after the operation. This force was gradually increased by 5 to 10 kilograms two weekly interval as union progressed. Average age of the patients was about 40 years most of them were young males, with 5:1 ratio to females. Femur was most commonly involved bone in 81 [54%] patients, while tibia in 69 [46%] patients. Road traffic accident was most common etiology in 95 [63.33%] patients, history of fall, nonunion, and field injuries were etiology in other cases. Locally made implants were used in all cases. External fixator was applied in 45 [30%] and internal fixation was done in 105 [70%] cases. Bone grafting was done in 24 cases. We achieved union in 97.3% patients. Union was achieved in mean 15.1 weeks in internal fixations and 17.3 weeks in external fixators. We had 21 [14%] minor and 8 [5%] major complications most of them in patients requiring external fixators. Quantifying partial weight bearing advice gives confidence to patient that how much weight bearing to be done depending upon fracture geometry, implant used its fixation and bone quality. By avoiding nonspecific terms toe touch, heel touch and partial weight bearing we can advise exactly to bear required weight by this simple method. The result of study shows excellent union rates even in open fractures and infected nonunion. To our knowledge this is the first attempt to quantify partial weight bearing advice. The result of this study will help in understanding the patient regarding weight bearing.

Wilms Tumor

diagnosis

Isolated hemihyperplasia in an infant: an overlooked sign for Wilms tumor development.
Mutafoglu, Kamer; Cecen, Emre; Cakmakci, Handan
Dokuz Eylul University - Institute of Oncology - Department of Pediatric Oncology

Keywords: Risk Assessment; Early Detection of Cancer; Beckwith-Wiedemann Syndrome; Hyperplasia; Syndrome

Abstract: Children with overgrowth syndromes including isolated hemihyperplasia have an increased risk for developing embryonal tumors, particularly Wilms’ tumor and hepatoblastoma. Screening with sonography has been suggested as a method of identifying these tumors while they are still at an early stage. We describe an infant
diagnosed with Wilms tumor in whom isolated hemihyperplasia had been overlooked by several physicians prior to the tumor diagnosis. We recommend tumor surveillance for all patients with Beckwith-Wiedemann syndrome and isolated hemihyperplasia at least for the first six years of life since full molecular characterization of every patient is not readily available.

**Wolfram Syndrome**

**A case of wolfram syndrome.**
Naderian, Gholamali; Ashtari, Fereshteh; Mahdavi, Kia Nouri; Sajjadi, Valleh
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Isfahan University of Medical Sciences - Peiz Hospital
*Journal of Ophthalmic and Vision Research* 2010; 5 (1): 53-56 (19 ref.)

**Keywords:** Diabetes Mellitus, Type 1; Optic Atrophy; Deafness; Diabetes Insipidus

**Abstract:** To report a case of Wolfram syndrome characterized by early onset diabetes mellitus and progressive optic atrophy. A 20-year-old male patient with diabetes mellitus type I presented with best corrected visual acuity of 1/10 in both eyes with correction of -0.25+1.50@55 and -0.25+1.50@131 in his right and left eyes, respectively. Bilateral optic atrophy was evident on fundus examination. The patient also had diabetes insipidus, neurosensory deafness, neurogenic bladder, polyuria and extra-residual voiding indicating atony of the urinary tract, combined with delayed sexual maturity. One should consider Wolfram syndrome in patients with juvenile onset diabetes mellitus and hearing loss. Ophthalmological examination may disclose optic atrophy; urologic examinations are vital in such patients.

**Wound Infection**

**microbiology**

**Bacterial adherence: the role of serum and wound fluid.**
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Covenant University - College of Science and Technology - Department of Biological Sciences

**Keywords:** Bacterial Infections; Bacteria-isolation and purification; Bacteria-pathogenicity; Swine

**Abstract:** Bacteria are known to initiate wound infections and have been found associated with wound infections. The purpose of this study was to investigate the bacterial adherence potential [BAP] of isolates commonly isolated from wounds in the presence of wound agents. The bacteria used were Pseudomonas aeruginosa, Proteus mirabilis, Escherichia coli and Staphylococcus aureus which were isolated from infected wounds and assayed for their adherence ability using wound fluid and serum. The BAP were achieved by exposing the pathogens to freshly excised tissue. The adhered bacteria were then eluded and quantified using log [CFU]/cm² on Mueller Hinton Agar per cm² of tissue. The results indicated that wound fluid and serum have a remarkable bacterial adherence potential [BAP] when exposed to freshly excised wounds as when compared to distilled water and no agent.

**Wounds and Injuries**

**Antemortem and postmortem estimation of skin wound age in rats: biochemical study.**
Sheta, Abeer A.; Suliman, Howayda S.; Megahed, Hairy M.
Alexandria University - Medical Research Institute - Department of Forensic Medicine and Clinical Toxicology
*Bulatim of Alexandria Faculty of Medicine* 2009; 45 (1): 241-251 (38 ref.)

**Keywords:** Interleukin-6; Fibronectins; Lipoxins; Age Factors; Rats; Skin-anatomy and histology

**Abstract:** Inflammatory mediators play an important role in the mediation of inflammation and trauma. There for they could be useful for the determination of vitality and wound age. In the present study, interleukin-6 [IL-6], fibronectin [Fn] and lipoxinA[4] [LXA[4]] were estimated in extracts of antemortem skin wounds in rats. Moreover, we extended our measurements to include the levels of these mediators in rat skin wounds in the early postmortem period aiming to test for their practical usefulness in the estimation of wound vitality and the duration after its infliction. Thirty two rats were divided into 4 groups of rats [8 animals in each group] and were assigned for collection of wound samples at the indicated time intervals. The wound samples were taken 30 mm [group I], 3 hours [group II], 6 hours [group III] and 24 [group IV] hours after infliction of the incised wounds. The specimens as control group were excised from uninjured rats [8 animals] in the same region as wounded groups. The rats in group IV were sacrificed by cervical dislocation and kept at room temperature to be used in assessment of postmortem changes on different parameters. Postmortem wound samples were then collected 24 hours after sacrifice of group IV rats and the postmortem control samples were taken from intact skin of the same rats. A special group of rats [n=8] was used to explore the influence of supravital
injuries on mediator release from postmortem inflicted wounds. All wound and control specimens were homogenated and assayed for the level of IL-6, Fn and LXA4 using quantitative ELISA analysis. Analysis of the changes of the studied parameters in different times revealed that Fn is the first mediator to increase, in 30 mm, after wound infliction. In the following 3 and 6 hours after wounding both Fn and IL-6 were increased. At 24 hours of wounding LXA4 increases to join Fn and IL-6, at that time Fn and IL-6 were still high. This pattern of increased level of the three mediators was maintained for at least 24 hours postmortem. We can conclude that the combined assay of IL-6, Fn and LXA4 may be a useful tool in determination of the probable duration lapsed since antemortem wound infliction. Moreover, this pattern of time dependent increase of the three parameters may be also useful in age determination of multiple inflicted wounds at variable intervals in the same victim. We can also conclude that vital reactions are essential for release of the assayed parameters. This can be documented by the lack of significant increase of these parameters in postmortem-inflicted wounds.

Trauma care systems in Saudi Arabia: an agenda for action.
Al Naarni, Mohammed Y.; Arafah, Maria A.; Al Ibrahim, Fatimah S.
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King Saud University - King Khaled University Hospital - Department of Surgery
Annals of Saudi Medicine 2010; 30 (1): 50-58 (52 ref.)
Keywords: Accidents, Traffic-economics; Accidents, Traffic-prevention and control; Transportation of Patients; Health Systems Plans
Abstract: Saudi Arabia is undergoing a rapid population growth that along with improved socioeconomics has led many individuals to own a car or even a number of cars per family, resulting in a greater number of vehicles on the roads. The reduced focus on good public transportation systems and the dependence on cars for transportation have created a diversity of drivers who are unfamiliar with the local driving rules and lack the basic skills for safe driving. This is in addition to some young drivers who frequently violate traffic laws and tend to speed most of the time. This unplanned expansion in road traffic has resulted in more car accidents, injuries, disabilities, and deaths. Accompanying that is an increased socioeconomic burden, depletion of human resources, emotional and psychological stress on families, and a strain on healthcare facilities. If this continues without prompt intervention, it will lead to increased insurance premiums and may become unmanageable. To minimize this impact, a national or regional multidisciplinary trauma system has to be developed and implemented. A trauma system is a preplanned, comprehensive, and coordinated regional injury response network that includes all facilities with the capability to care for the injured. Essential components of the system include trauma prevention, prehospital care, hospital care, rehabilitation, system administration, trauma care education and training, trauma care evaluation and quality improvement, along with the participation of society. Research has documented a significant decrease in morbidity and mortality from trauma after the implementation of such systems, depending on their efficiency. The purpose of this review is to discuss the problem of road traffic accidents in this country and address the trauma care system as an effective solution.
Appendix I

Author Index
<table>
<thead>
<tr>
<th>Name</th>
<th>Topic/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abba, Abdullah A.</td>
<td>Tuberculosis, Pulmonary (diagnosis)</td>
</tr>
<tr>
<td>Abbas, Assad</td>
<td>Cephalometry</td>
</tr>
<tr>
<td>Abbas, Farhat</td>
<td>Ventricular Function</td>
</tr>
<tr>
<td>Abbas, Ghulam</td>
<td>Appendicitis (diagnosis)</td>
</tr>
<tr>
<td>Abbasi, Seyed Hesameddien</td>
<td>Carotid Stenosis (epidemiology)</td>
</tr>
<tr>
<td>Abdalla, Salah M.</td>
<td>Pregnancy trimester, third</td>
</tr>
<tr>
<td>Abdel Aleem, Seham</td>
<td>Prostaglandin-endoperoxide, synthases, aluminum compounds (adverse effects)</td>
</tr>
<tr>
<td>Abdel Aty, M.A.</td>
<td>Nutrition Surveys</td>
</tr>
<tr>
<td>Abdel Aziz, Dareen Mohamed M.</td>
<td>9,10-dimethyl-1,2-benzanthracene (toxicity)</td>
</tr>
<tr>
<td>Abdel Dayem, Menna M.</td>
<td>Varicocele (surgery)</td>
</tr>
<tr>
<td>Abdel Fattah, Eman A.</td>
<td>Lacrimal apparatus (anatomy and histology)</td>
</tr>
<tr>
<td>Abdel Fattah, Lamiaa I.</td>
<td>Vascular endothelial growth factors</td>
</tr>
<tr>
<td>Abdel Gader, Fadi</td>
<td>Retinitis pigmentosa</td>
</tr>
<tr>
<td>Abdel Gawad, Reem A.M.</td>
<td>Dental pulp cavity</td>
</tr>
<tr>
<td>Abdel Hady, Mona</td>
<td>Contraceptive agents, female (administration and dosage)</td>
</tr>
<tr>
<td>Abdel Haleim, Manal R.</td>
<td>Lacrimal apparatus (anatomy and histology)</td>
</tr>
<tr>
<td>Abdel halem, Khaled S.</td>
<td>Radius fractures (therapy)</td>
</tr>
<tr>
<td>Abdel Hamid, Alaa El Din S.</td>
<td>Hepatectomy</td>
</tr>
<tr>
<td>Abdel Kareem, Elham</td>
<td>Hodgkin disease (drug therapy)</td>
</tr>
<tr>
<td>Abdel Maksoud, Safaa A.</td>
<td>Garlic (drug effects)</td>
</tr>
<tr>
<td>Abdel Mohiemen, Reham</td>
<td>Tomography, X-ray computed</td>
</tr>
<tr>
<td>Abdel Moneim, Samir M.</td>
<td>Diabetes mellitus, type 2</td>
</tr>
<tr>
<td>Abdel Motagally, Fatma Y.</td>
<td>Garlic (drug effects)</td>
</tr>
<tr>
<td>Abdel Naby, Mahmoud</td>
<td>Uterine rupture</td>
</tr>
<tr>
<td>Abdel Naeim, Mohamed Abdo</td>
<td>Hyperthyroidism</td>
</tr>
<tr>
<td>Abdel Rahman, Gamal M.</td>
<td>Ultraviolet rays (adverse effects)</td>
</tr>
<tr>
<td></td>
<td>Ultraviolet raup (adverse effects)</td>
</tr>
<tr>
<td></td>
<td>Hepatectomy</td>
</tr>
<tr>
<td></td>
<td>Electromagnetic fields (adverse effects)</td>
</tr>
<tr>
<td>Abdel Samad, Abeer A.</td>
<td>Skin (anatomy and histology)</td>
</tr>
<tr>
<td>Abdel Sattar, Helmy H.</td>
<td>Contraceptive agents, female (administration and dosage)</td>
</tr>
<tr>
<td>Abdel Zaher, Eman</td>
<td>Lupus nephritis</td>
</tr>
<tr>
<td>Abdoli, H.</td>
<td>Leishmaniasis (epidemiology)</td>
</tr>
<tr>
<td>Abdul Haleem</td>
<td>Appendectomy (methods)</td>
</tr>
<tr>
<td>Abdul Majid</td>
<td>Surgical procedures, operative (adverse effects)</td>
</tr>
<tr>
<td>Abdulla, Mohamed Mohamed</td>
<td>Anemia, sickle cell (complications)</td>
</tr>
<tr>
<td>Abid, Muhammad</td>
<td>Weight-bearing</td>
</tr>
<tr>
<td>Abo Elfadi, Sameh M.</td>
<td>Radius fractures (therapy)</td>
</tr>
<tr>
<td>Abo Elmatty, Dina M.</td>
<td>Porifera</td>
</tr>
<tr>
<td>Abo Hager, Eman A.</td>
<td>Carcinoma, adenoid cystic (diagnosis)</td>
</tr>
<tr>
<td>Abou Elela, Soad H.</td>
<td>Porifera</td>
</tr>
<tr>
<td>Abou Elghait, Amal T.</td>
<td>Hernia, inguinal (pathology)</td>
</tr>
<tr>
<td>Aboul Enein, Naguib M.</td>
<td>Dental pulp cavity</td>
</tr>
<tr>
<td></td>
<td>Root canal preparation</td>
</tr>
<tr>
<td>Aboul Enien, Wafaa M.</td>
<td>Contraceptive agents, female (administration and dosage)</td>
</tr>
<tr>
<td>Abouzeid, Abouzeid M.H.</td>
<td>Pregnancy trimester, third</td>
</tr>
<tr>
<td>Abrishami, Mohammad</td>
<td>Trochlear nerve diseases (diagnosis)</td>
</tr>
<tr>
<td></td>
<td>Abbucens nerve diseases (surgery)</td>
</tr>
<tr>
<td></td>
<td>Hemangioma, cavernous</td>
</tr>
<tr>
<td>Abu Elnasr, Khaled M.</td>
<td>Radius fractures (therapy)</td>
</tr>
<tr>
<td>Abu Hamad, B.</td>
<td>Drugs, essential</td>
</tr>
<tr>
<td>Aburizk, Ibrahim</td>
<td>Trachea (pathology)</td>
</tr>
<tr>
<td>Name</td>
<td>Topic</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Abuzaid, Abeer</td>
<td>SELF MEDICATION (statistics and numerical data)</td>
</tr>
<tr>
<td>Acil, Meltem</td>
<td>PREGNANCY COMPLICATIONS, NEOPLASTIC (surgery)</td>
</tr>
<tr>
<td>Adebayo, M.O.</td>
<td>SCHISTOSOMIASIS HAEMATOBIA</td>
</tr>
<tr>
<td>Adeleke, M.A.</td>
<td>SCHISTOSOMIASIS HAEMATOBIA</td>
</tr>
<tr>
<td>Adeneye, A.K.</td>
<td>SCHISTOSOMIASIS HAEMATOBIA</td>
</tr>
<tr>
<td>Adibi, Hossein</td>
<td>LENGTH OF STAY</td>
</tr>
<tr>
<td>Aebi, Max</td>
<td>SPINAL FUSION</td>
</tr>
<tr>
<td>Afshari, Jali Tavakol</td>
<td>INTERLEUKIN-8 (diagnostic use)</td>
</tr>
<tr>
<td>Afshari, R.</td>
<td>LEAD POISONING (epidemiology)</td>
</tr>
<tr>
<td>Aftab, Pervez Ahmed</td>
<td>MACROGLOSSIA (etiology)</td>
</tr>
<tr>
<td>Afzal, Muhammad</td>
<td>DIVING (adverse effects)</td>
</tr>
<tr>
<td>Afzal, Muhammad Nasir</td>
<td>EUTHANASIA</td>
</tr>
<tr>
<td>Afzal, Waseem</td>
<td>SPINAL FUSION</td>
</tr>
<tr>
<td>Aghamohammadi, Asghar</td>
<td>IMMUNOLOGIC DEFICIENCY SYNDROMES (history)</td>
</tr>
<tr>
<td>Agrwal, Amit</td>
<td>ENCEPHALOCELE</td>
</tr>
<tr>
<td>Ahmad, E.M.</td>
<td>EPILEPSY (diagnosis)</td>
</tr>
<tr>
<td>Ahmad, Hossein</td>
<td>CAROTID STENOSIS (epidemiology)</td>
</tr>
<tr>
<td>Ahmad, Mitra</td>
<td>ANEMIA, MACROCYTIC (genetics)</td>
</tr>
<tr>
<td>Ahmed, A.E.</td>
<td>HYSTERECTOMY (adverse effects)</td>
</tr>
<tr>
<td>Ahmed, B.H.</td>
<td>HIV INFECTIONS (epidemiology)</td>
</tr>
<tr>
<td>Ahmed, Bashir</td>
<td>TINNITUS (drug therapy)</td>
</tr>
<tr>
<td>Ahmed, F.</td>
<td>PUBLIC-PRIVATE SECTOR PARTNERSHIPS</td>
</tr>
<tr>
<td>Ahmed, Mimir</td>
<td>HYPERTENSION, PREGNANCY-INDUCED (epidemiology)</td>
</tr>
<tr>
<td>Ahmed, Mohamed M.</td>
<td>CARCINOMA, ADENOID CYSTIC (diagnosis)</td>
</tr>
<tr>
<td>Ahmed, Mohamed Rifaat</td>
<td>HEARING LOSS, NOISE-INDUCED</td>
</tr>
<tr>
<td>Ahmed, Mona</td>
<td>HOMOCYSTEINE (toxicity)</td>
</tr>
<tr>
<td>Ahmed, Muhammad</td>
<td>WEIGHT-BEARING</td>
</tr>
<tr>
<td>Ahmed, Nagwa M.</td>
<td>DIABETES MELLITUS, TYPE 2 (genetics)</td>
</tr>
<tr>
<td>Ahmed, Rehab</td>
<td>ALUMINUM COMPOUNDS (adverse effects)</td>
</tr>
<tr>
<td>Ahmed, Sabihuddin</td>
<td>PHACOEMULSIFICATION (adverse effects)</td>
</tr>
<tr>
<td>Ahmed, Salahuddin</td>
<td>PHACOEMULSIFICATION (adverse effects)</td>
</tr>
<tr>
<td>Ahmed, Saleem</td>
<td>PREOPERATIVE CARE (psychology)</td>
</tr>
<tr>
<td>Ahmed, Shakeel</td>
<td>PREOPERATIVE CARE (psychology)</td>
</tr>
<tr>
<td>Ahmed, Shaobin</td>
<td>PREOPERATIVE CARE (psychology)</td>
</tr>
<tr>
<td>Ahmed, Tahir Masood</td>
<td>BIOPSY (methods)</td>
</tr>
<tr>
<td>Ahmed, Waqar</td>
<td>DIABETES MELLITUS (prevention and control)</td>
</tr>
<tr>
<td>Ajayi, M.B.</td>
<td>SCHISTOSOMIASIS HAEMATOBIA</td>
</tr>
<tr>
<td>Ajlouni, Kamel</td>
<td>TRANSAMINASES (blood)</td>
</tr>
<tr>
<td>Ajmal, Samira</td>
<td>CLEFT LIP (surgery)</td>
</tr>
<tr>
<td>Akande, D.O.</td>
<td>SCHISTOSOMIASIS HAEMATOBIA</td>
</tr>
<tr>
<td>Akhavan, A.A.</td>
<td>LEISHMANIASIS (epidemiology)</td>
</tr>
<tr>
<td>Akhtar, Mohammad</td>
<td>GLUCOSEPHOSPHATE DEHYDROGENASE DEFICIENCY (epidemiology)</td>
</tr>
<tr>
<td>Akhtar, Zubaida</td>
<td>POSTPARTUM HEMORRHAGE (drug therapy)</td>
</tr>
<tr>
<td>Akin, Sule</td>
<td>PREGNANCY COMPLICATIONS, NEOPLASTIC (surgery)</td>
</tr>
<tr>
<td>Akinci, M.</td>
<td>ECHINOCOCCOSIS (diagnosis)</td>
</tr>
<tr>
<td>Akinwale, O.P.</td>
<td>SCHISTOSOMIASIS HAEMATOBIA</td>
</tr>
<tr>
<td>Akmal, M.</td>
<td>PULMONARY CIRCULATION</td>
</tr>
<tr>
<td>Akylidiz, Senay</td>
<td>CORONARY VESSEL ANOMALIES (diagnosis)</td>
</tr>
<tr>
<td>Al Adsani, Afaf</td>
<td>RETINITIS PIGMENTOSA</td>
</tr>
</tbody>
</table>
Al Al, Kholod A.  
DIABETES MELLITUS, TYPE 2 (epidemiology)

Al Ansi, A.  
DIABETIC ANGIOPATHIES (etiologic)

Al Ansi, Mohamed  
ENDOCARDITIS (diagnosis)

Al Barazangi, Bassam  
DEXMEDETOMIDINE (therapeutic use)

Al Barrak, Ali  
TUBERCULOSIS, PULMONARY (diagnosis)

Al Dahmash, Saad  
TUBERCULOSIS, OCULAR (diagnosis)

Al Delamie, Taha  
POLYCYTHEMIA VERA (complications)

Al Fraikh, Hamad  
TUBERCULOSIS, OCULAR (diagnosis)

Al Ghamdi, Ali Saad Thafeed  
ORTHODONTICS, CORRECTIVE (methods)

Al Giushy, Aly M.  
SHOULDER PAIN (diagnosis)

Al Hadabi, S.  
NUTRITION SURVEYS

Al Hajeri, Shailtha S.  
DIABETES MELLITUS, TYPE 2 (epidemiology)

Al Hajjaj, Mohammad  
TUBERCULOSIS, PULMONARY (diagnosis)

Al Hajjar, Sami  
INFLUENZA A VIRUS, H1N1 SUBTYPE

Al Hussyeen, Al Johara A.  
DENTAL HEALTH SERVICES

Al Ibrahim, Fatimah S.  
WOUNDS AND INJURIES

Al Jahdali, Hamdan H.  
TUBERCULOSIS, PULMONARY (diagnosis)

Al Kharusi, H.  
NUTRITION SURVEYS

Al Khawlanli, A.  
DIABETIC ANGIOPATHIES (etiologic)

Al Madani, Ayman  
MUCOCOELE (surgery)

Al Mazroa, Mohammad A.  
INFLUENZA A VIRUS, H1N1 SUBTYPE

Al Mendalawi, M.D.  
GLUCOSEPHOSPHATE DEHYDROGENASE DEFICIENCY (epidemiology)

Al Metwalli, R.R.  
ANALGESIA, EPIDURAL

Al Mezaine, Hani  
GLAUCOMA (therapy)

Al Momen, Sami  
ANASTOMOSIS, ROUX-EN-Y (adverse effects)

Al Muammar, Abdulrahman  
GLAUCOMA (therapy)

Al Naarni, Mohammed Y.  
WOUNDS AND INJURIES

Al Nahrawy, Osama Mohy Eldin  
HYPERTHYROIDISM

Al Noami, Alezzy Yahya  
ENDOCARDITIS (diagnosis)

Al Obeidan, Saleh A.  
GLAUCOMA (therapy)

Al Qallaf, Khalida I.  
DIABETES MELLITUS, TYPE 1 (complications)

Al Rifaiy, Mohammed Q.  
DENTAL POLISHING (methods)

Al Riyami, A.  
NUTRITION SURVEYS

Al Saif, Osama  
ANASTOMOSIS, ROUX-EN-Y (adverse effects)

Al Salem, Ahmed  
ANASTOMOSIS, ROUX-EN-Y (adverse effects)

Al Shamali, Nawal F.  
DIABETES MELLITUS, TYPE 1 (complications)

Al Shehah Abdulmajid  
CONJUNCTIVAL DISEASES (diagnosis)

Al Taie, Saqar  
POLYCYTHEMIA VERA (complications)

Al Tamwneh, M.  
NEOPLASMS (epidemiology)

Al Tawfiq, Jaffar A.  
HYDROGEN SULFIDE (toxicity)

Al Wadey, Ali M.  
INFLUENZA A VIRUS, H1N1 SUBTYPE

Al Zaben, Khaleel  
DEXMEDETOMIDINE (therapeutic use)

Alamgir, Wasim  
AMLODIPINE (therapeutic use)

Alamro, Abdullah  
TOMOGRAPHY, X-RAY COMPUTED

Alasti, Mohammad  
ATHLETES

Albinali, H.A. Hajar  
FATTY ACIDS, OMEGA-3

Aldar, Mohmad Malik  
EPILEPSY (diagnosis)

Aletaha, Maryam  
TROCHLEAR NERVE DISEASES (diagnosis)

Alfadjir, Malik Hassan Ibrahim  
ANEMIA, SICKLE CELL (epidemiology)

Alhaboob, Nassir  
ECHINOCOCCOSIS
Ali, Amr A.  
ULTRAVIOLET RAYS (adverse effects)  
ULTRAVIOLET RAUP (adverse effects)

Ali, Mumtaz  
INFRATENTORIAL NEOPLASMS (pathology)

Ali, Salman  
GONADAL DYSGENESIS

Ali, Syed Khawar  
GONADAL DYSGENESIS

Ali, Zulfiqar  
INFRATENTORIAL NEOPLASMS (surgery)

Alimohammadian, M.H.  
LEISHMANIASIS (epidemiology)

Aljhani, Ali  
MALOCCLUSION (surgery)

Alktatan, Hind  
EYE DISEASES (pathology)

Alktatan, Hind M.  
HISTIOCYTOMA, MALIGNANT FIBROUS

Almallah, Amany A.  
ELECTROMAGNETIC FIELDS (adverse effects)

Almasi, Simin  
SCLERODERMA, SYSTEMIC

Alomran, Reem  
TOMOGRAPHY, X-RAY COMPUTED

Alrajhi, Abdulrahman A.  
HIV INFECTIONS (transmission)  
TUBERCULOSIS, PULMONARY (diagnosis)

Altai, Choudhry  
MACROGLOSSIA (etiology)

Ambreen, Shumaila  
PEPTIC ULCER (epidemiology)

Amer, Abdel Hamid G.  
LIVER CIRRHOSIS, EXPERIMENTAL (drug therapy)

Amin, Abid  
APPENDICITIS (parasitology)

Amin, Said  
DIABETIC FOOT

Amini, Shahram  
PIPERIDINES (therapeutic use)

Ansari, A.H.  
PULMONARY CIRCULATION

Ansari, Mohammad Javad Alemzadeh  
ANEMIA, SICKLE CELL (diagnosis)

Ansari, Zahra  
ARTERIES (injuries)

Anwar, Ayesha  
DIASTEMA

Anwar, Ghada M.  
KERATOMILEUSIS, LASER IN SITU

Anwar, Syed Onaiz  
PEPTIC ULCER (epidemiology)

Arafa, Maria A.  
WOUNDS AND INJURIES

Arandian, M.H.  
LEISHMANIASIS (epidemiology)

Arasteh, Mehdi Tayebi  
PIPERIDINES (therapeutic use)

Arbibagan, Anis  
PREGNANCY COMPLICATIONS, NEOPLASTIC (surgery)

Arif, Nadia  
LABOR, INDUCED (methods)

Arqub, K.  
NEOPLASMS (epidemiology)

Arshad, Abdul Rehman  
DIABETES MELITUS (prevention and control)

Arzanian, Mohammad Taghi  
ANEMIA, MACROCYTIC (genetics)

Asad, Ambreen  
SPINAL FUSION

Asghar, Sohail  
SURGICAL PROCEDURES, OPERATIVE (adverse effects)

Asghari, F.  
PHYSICIAN-PATIENT RELATIONS

Ashraf, Hafiz Muhammad  
PEPTIC ULCER (epidemiology)

Ashraf, Muhammad  
MACROGLOSSIA (etiology)

Ashrafzai, K.  
DIROFILARIASIS (diagnosis)

Ashtari, Fereshteh  
WOLFRAM SYNDROME

Askari, G.H.  
EICOSAPENTAENOIC ACID

Asker Samad A.  
NITRIC-OXIDE SYNTHASE (analysis)

Aslam, Mohammad  
CATHETERIZATION (adverse effects)

Atef, Z.A.  
DIABETIC ANGIOPATHIES (etiology)

Atif, Said Ahmed Mohamed A.  
MANDIBLE (anatomy and histology)

Awad Alla, Abdel Shafy A.  
COLORECTAL NEOPLASMS (diagnosis)  
SHOULDER PAIN (diagnosis)

Awad, Ishraga Mohamed Ali  
PALLIATIVE CARE

Ayub, Shahid  
INFRATENTORIAL NEOPLASMS (pathology)

Ayub, Umar  
OSTEOPOROSIS, POSTMENOPAUSAL (epidemiology)

Azeemi, Mian Mukhtar Ill Haq  
IRRITABLE BOWEL SYNDROME (pathology)
Azzam, Amal Zaki  
ABORTION, THREATENED (diagnosis)

Azzam, Ayman  
LIVER TRANSPLANTATION (adverse effects)

Babsharif, Babak  
ABDUCENS NERVE DISEASES (surgery)

Badahdah, A.M.  
ACQUIRED IMMUNODEFICIENCY SYNDROME (psychology)

Badawy, Mohsen  
STEM CELL TRANSPLANTATION

Badr, Elsheikh  
PRIVATE SECTOR  
SELF MEDICATION (statistics and numerical data)

Badran, Izdiad  
DEXMEDETOMIDINE (therapeutic use)

Baghaii, Bahareh  
MALOCCLUSION (therapy)

Bagheri, Abbas  
TROCHLEAR NERVE DISEASES (diagnosis)  
ABDUCENS NERVE DISEASES (surgery)  
HEMANGIOMA, CAVERNOUS

Bagis, Tayfun  
PREGNANCY COMPLICATIONS, NEOPLASTIC (surgery)

Bahadori, M.  
OCCUPATIONAL EXPOSURE

Bahari, Ali  
HEPATITIS C (genetics)

Baharoon, Salim  
TUBERCULOSIS, PULMONARY (diagnosis)

Balali Mood, B.  
LEAD POISONING (epidemiology)

Balali Mood, M.  
LEAD POISONING (epidemiology)

Baluch, Amir  
ANESTHESIA

Banaee, Touka  
EYE FOREIGN BODIES (surgery)

Baraka, A.  
POST-DURAL PUNCTURE HEADACHE

Baraka, Anis S.  
POSTOPERATIVE NAUSEA AND VOMITING  
(drug therapy)

Baraty, Behrouz  
HYPOPARATHYROIDISM

Bartelink, Marie Louise  
CALCINOSIS (epidemiology)

Basar, Hulya  
ANESTHESIA, SPINAL

Basaran, Murat  
CORONARY VESSEL ANOMALIES (diagnosis)

Batool, Iffat  
CEPHALOMETRY

Bawahab, Mohammed  
GASTRECTOMY (adverse effects)

Bayomy, Naglaa A.  
DIETHYLHEXYL PHTHALATE (toxicity)  
SIMVASTATIN (toxicity)

Bayoumi, Yasser  
TOMOGRAPHY, X-RAY COMPUTED

Bazzazi, Nooshin  
NERVOUS SYSTEM DISEASES (genetics)

Beigi, Nooshin Moosavi  
DEXTROMETHORPHAN

Bell, Diana  
EYELID NEOPLASMS

Bhadra, Mithu  
ANTHROPOMETRY

Bhakta, Pradipika  
PROPOFOL

Bilal, Muhammad  
ECTODERMAL DYSPLASIA (surgery)

Billy, Helmut  
GASTRECTOMY (adverse effects)

Bin Dahham, Muneera  
HIV INFECTIONS (transmission)

Bin Saeed, Abdulaziz A.  
INFLUENZA A VIRUS, H1N1 SUBTYPE

Biswas, Sadaruddin  
ANTHROPOMETRY

Bokhari, Syed Zahid Hussain  
GUILLAIN-BARRE SYNDROME (rehabilitation)

Bose, Kaushik  
ANTHROPOMETRY

Bose, Somnath  
TONGUE NEOPLASMS (complications)

Boskabadi, Hassan  
INTERLEUKIN-8 (diagnostic use)

Bots, Michiel  
CALCINOSIS (epidemiology)

Bouanene, I.  
BREAST FEEDING (epidemiology)

Bouslah, A.  
BREAST FEEDING (epidemiology)

Bozikov, Velimir  
MACROPHAGE ACTIVATION SYNDROME (diagnosis)

Bseiso, Bahaa  
ANASTOMOSIS, ROUX-EN-Y (adverse effects)

Budhiraja, Sandeep  
RESPIRATORY FUNCTION TESTS

Bushra, M.  
ECHINOCOCCOSIS

Buyukbebeci, Orhan  
THROMBASTHENIA
<table>
<thead>
<tr>
<th>Author Name</th>
<th>Subject Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cacciapuoti, Federico</td>
<td>NATRIURETIC PEPTIDES</td>
</tr>
<tr>
<td>Caglar, Sabri O.</td>
<td>ATRIAL FIBRILLATION (etiology)</td>
</tr>
<tr>
<td>Cakmakci, Handan</td>
<td>WILMS TUMOR (diagnosis)</td>
</tr>
<tr>
<td>Cecen, Emre</td>
<td>WILMS TUMOR (diagnosis)</td>
</tr>
<tr>
<td>Cekic, Sonja Predrag</td>
<td>RETINAL ARTERY OCCLUSION</td>
</tr>
<tr>
<td>Chaikhouni, Amer</td>
<td>THORACIC SURGERY (history)</td>
</tr>
<tr>
<td>Chamari, M.</td>
<td>DERMATITIS, ATOPIC</td>
</tr>
<tr>
<td>Chatterjee, C.</td>
<td>THALASSEMIA (economics)</td>
</tr>
<tr>
<td>Chatterjee, Suman</td>
<td>POSTPARTUM HEMORRHAGE (therapy)</td>
</tr>
<tr>
<td>Chaudhry, Imtiaz A.</td>
<td>TRACHOMA (diagnosis)</td>
</tr>
<tr>
<td>Chhabra, Anjolie</td>
<td>TONGUE NEOPLASMS (complications) PREGNANCY COMPLICATIONS, NEOPLASTIC (surgery)</td>
</tr>
<tr>
<td>Coats, David</td>
<td>ABDUCENS NERVE DISEASES (surgery)</td>
</tr>
<tr>
<td>Cok, Oya Yalcin</td>
<td>PREGNANCY COMPLICATIONS, NEOPLASTIC (surgery)</td>
</tr>
<tr>
<td>Conrad, Erich</td>
<td>ANESTHESIA</td>
</tr>
<tr>
<td>Coskun, Orhan</td>
<td>CORONARY VESSEL ANOMALIES (diagnosis)</td>
</tr>
<tr>
<td>Cuvas, Ozgun</td>
<td>ANESTHESIA, SPINAL</td>
</tr>
<tr>
<td>Dabbagh, Ali</td>
<td>INFANT, NEWBORN</td>
</tr>
<tr>
<td>Dabbous, Alia S.</td>
<td>POSTOPERATIVE NAUSEA AND VOMITING (drug therapy)</td>
</tr>
<tr>
<td>Dalirani, Reza</td>
<td>URINARY TRACT INFECTIONS (etiology)</td>
</tr>
<tr>
<td>Davalloo, A.</td>
<td>ORAL HYGIENE</td>
</tr>
<tr>
<td>Dayioglu, Muruvvet</td>
<td>EISENMENTER COMPLEX</td>
</tr>
<tr>
<td>Deghady, Akram Abdel Moneim</td>
<td>ABORTION, THREATENED (diagnosis)</td>
</tr>
<tr>
<td>Dhooria, Gurdeep S.</td>
<td>RESPIRATORY FUNCTION TESTS</td>
</tr>
<tr>
<td>Dib, Jean G.</td>
<td>BLOOD GLUCOSE</td>
</tr>
<tr>
<td>Dief, Abeer El Emam</td>
<td>KIDNEY (pathology)</td>
</tr>
<tr>
<td>Dike, A.A.</td>
<td>SCHISTOSOMIASIS HAEMATOBIA</td>
</tr>
<tr>
<td>Djalali, M.</td>
<td>EICOSAPENTAENOIC ACID</td>
</tr>
<tr>
<td>Djazayery, S.A.</td>
<td>EICOSAPENTAENOIC ACID</td>
</tr>
<tr>
<td>Donaldson, Lucy F.</td>
<td>PROSTAGLANDIN-ENDOPEROXIDE, SYNTHASES</td>
</tr>
<tr>
<td>Doosti, M.</td>
<td>HELICOBACTER PYLORI (isolation and purification)</td>
</tr>
<tr>
<td>Doozande, Azade</td>
<td>NEOVASCULARIZATION, PATHOLOGIC (drug therapy)</td>
</tr>
<tr>
<td>Dormohammadi, T.</td>
<td>PHYSICIAN-PATIENT RELATIONS</td>
</tr>
<tr>
<td>Doujaiji, Bassam</td>
<td>HYDROGEN SULFIDE (toxicity)</td>
</tr>
<tr>
<td>Duman, Ates</td>
<td>EISENMENTER COMPLEX</td>
</tr>
<tr>
<td>Duncan, Andrew</td>
<td>GASTRECTOMY (adverse effects)</td>
</tr>
<tr>
<td>Edathodu, Jameela</td>
<td>HIV INFECTIONS (transmission)</td>
</tr>
<tr>
<td>Egawa, Hiroto</td>
<td>LIVER TRANSPLANTATION (adverse effects)</td>
</tr>
<tr>
<td>Eghbal, Mohammad Hossein</td>
<td>ATRACURUM (therapeutic use)</td>
</tr>
<tr>
<td>Eghbali, Aziz</td>
<td>ANEMIA, MACROCYTIC (genetics)</td>
</tr>
<tr>
<td>Eghbalian, Fatemeh</td>
<td>NERVOUS SYSTEM DISEASES (genetics)</td>
</tr>
<tr>
<td>Ehsani, A.H.</td>
<td>DERMATITIS, ATOPIC</td>
</tr>
<tr>
<td>El Abd, Mohamed</td>
<td>PRE-ECLAMPSIA (diagnosis)</td>
</tr>
<tr>
<td>El Adawy, Ibrahim T.</td>
<td>KERATOMILEUSIS, LASER IN SITU</td>
</tr>
<tr>
<td>El Adil, Omer</td>
<td>EPILEPSY (diagnosis)</td>
</tr>
<tr>
<td>El Bakary, Nafisa A.</td>
<td>THYROID GLAND (drug effects)</td>
</tr>
<tr>
<td>El Bakry, Nadia A.</td>
<td>SIMVASTATIN (toxicity)</td>
</tr>
<tr>
<td>El Barby Magdy Ali</td>
<td>HYPERTHYROIDISM</td>
</tr>
<tr>
<td>El Belbesy, Mervat Farag</td>
<td>LIMB DEFORMITIES, CONGENITAL (genetics)</td>
</tr>
<tr>
<td>El Defrawy, Mohamed</td>
<td>HODGKIN DISEASE (drug therapy)</td>
</tr>
<tr>
<td>El Drieny, Ezzat A.</td>
<td>DIETHYLBROMPHALATE (toxicity)</td>
</tr>
</tbody>
</table>
El Fayoumi, Tarek A.
HERNIA, VENTRAL (surgery)

El Gamal, Dalia A.
GARLIC (drug effects)

El Gamal, Dalia Abd
MALATHION (toxicity)

El Gamal, Abdel Rahman A.
LACRIMAL APPARATUS (anatomy and histology)

El Hefnawy, Nadia G.
ELECTROMAGNETIC FIELDS (adverse effects)

El Hilaly, Asser
BURNS (therapy)

El Hosainy, Wafaa Abdel Azeem
STRESS, PSYCHOLOGICAL

El Kerdawy, Hala
LABOR PAIN (therapy)

El Khatib, Mohamad
TRACHEA (pathology)

El Khatib, Mohamad F.
POSTOPERATIVE NAUSEA AND VOMITING
(drug therapy)

El Makhzangy, I.
PRE-ECLAMPSIA

El Medany, S.
PRE-ECLAMPSIA

El Mekkawy, Soha F.
BURNS (therapy)

El Mhamdi, S.
BREAST FEEDING (epidemiology)

El Nahas, Hussein
STEM CELL TRANSPLANTATION

El Nahass, Hussein S.
ULTRAVIOLET RAYS (adverse effects)
ULTRAVIOLET RAUP (adverse effects)

El Odemi, Mahmoud H.
CYCLOSPORINE (toxicity)

El Rahmany, Hossam
UTERINE RUPTURE

El Refai, Abdel Nasser M.H.
9,10-DIMETHYL-1,2-BENZANTHRACENE
(toxicity)

El Ridi, Mamdouh R.
HYPERTENSION (chemically induced)

El Sebay, S.
PRE-ECLAMPSIA

El Serafi, Taher L.
DIABETES MELLITUS, TYPE 2 (genetics)
DIABETES MELLITUS, TYPE 2

El Serogy, Hesham
ACUTE LUNG INJURY (chemically induced)

El Shafei, Mohammad D.
VASCULAR ENDOTHELIAL GROWTH FACTORS

El Shafey, Basem
ACUTE LUNG INJURY (chemically induced)

El Shafey, Saad
NITRIC-OXIDE SYNTHASE (analysis)

El Shazly, Medhat K.
DIABETES MELLITUS, TYPE 1 (complications)

El Sheikh, Samar Mohamed
RHABDOMYOSARCOMA (genetic)

El Shireef, Eman M.K.
HEPATECTOMY

El Sorady, Manal
HODGKIN DISEASE (drug therapy)

El Sweify, Amr A.
9,10-DIMETHYL-1,2-BENZANTHRACENE
(toxicity)

El Sweify, Amr A.
DENTAL IMPLANTS, SINGLE-TOOTH

El Taher, Sameh M.
BURNS (therapy)

El Tawil, A.M.
CHRONIC DISEASE (epidemiology)

El Yamani, Nahala
STEM CELL TRANSPLANTATION

Elkakumanan, Lenib Babu
TONGUE NEOPLASMS (complications)

Elamin, Elfatih Ibrahim
DRUGS, ESSENTIAL (supply and distribution)

Elawadi, Abou Saleh
TOMOGRAPHY, X-RAY COMPUTED

Elbazar, Mona A.
MALATHION (toxicity)

Elbordini, Madgy
LUPUS NEPHRITIS (physiopathology)

Elgezeery, Amina R.
OBESITY (genetics)

Elhohary, Eman
LUPUS NEPHRITIS (physiopathology)

Elissidi, Heba Atta Almannan
SELF MEDICATION (statistics and numerical data)

Eltony, Sohair A.M.
HARDERIAN GLAND (anatomy and histology)

Eltoum, Hassan A.A.
EPILEPSY (diagnosis)

Elwy, M.A.
LUPUS ERYTHEMATOSUS, SYSTEMIC
(immunology)

Emre, Ilhan
POSTOPERATIVE COMPLICATIONS

Enabulele, I.O.
WOUND INFECTION (microbiology)

Erden, Emine C.
ATRIAL FIBRILLATION (etiology)
Erden, Ismail
ATRIAL FIBRILLATION (etiology)

Erdogan, Bulent
PREGNANCY COMPLICATIONS, NEOPLASTIC (surgery)

Erfanian, Mohammad Reza
HEMANGIOMA, CAVERNOUS

Ergul, Z.
ECHINOCOCCOSIS (diagnosis)

Ershadi, M.R. Yaghoobi
LEISHMANIASIS (epidemiology)

Eshraghian, M.R.
DERMATITIS, ATOPIC

Esmaeilzadeh, Maryam
HEART RUPTURE, POST-INFARCTION (diagnosis)

Esmaeli, Bita
EYELID NEOPLASMS

Esmaeli, J.
PISTACIA

Ezzatpanah, Hamid
MILK (chemistry)

Faghn, J.
LEUKOCIDINS (genetics)

Faheem, Mohammad
CARDIOVASCULAR DISEASES (etiology)
VENTRICULAR FUNCTION

Fahim, Ayman Ekram
STRESS, PSYCHOLOGICAL
HEARING LOSS, NOISE-INDUCED

Fahimzad, Alireza
URINARY TRACT INFECTIONS (etiology)

Faiza, Ahmed Askar
ENDOCARDITIS (diagnosis)

Falah, Hamid
MALATHION (toxicity)

Fathi, Hala M.
MALATHION (toxicity)

Fattouh, R.
DRUGS, ESSENTIAL

Fawad, Ahmad
CARDIOVASCULAR DISEASES (etiology)

Fayyaz, Muhammad
PHACOEMULSIFICATION (adverse effects)

Fazal Ghafour
VENTRICULAR FUNCTION

Feizi, Sepehr
CORNEAL WAVEFRONT ABERRATION

Firooz, A.R.
DERMATITIS, ATOPIC

Firoozrai, Mohsen
NITRIC OXIDE SYNTHASE TYPE III (genetics)

Flahati, F.
WAR

Frost, Elizabeth
ANESTHESIA

Fuleihan, Nabil
TRACHEA (pathology)

Galah, Z.A.
LUPUS ERYTHEMATOSUS, SYSTEMIC (immunology)

Ganef, M.
VASCULAR ENDOTHELIAL GROWTH FACTORS

Geranmayeh, S.
DIROFILARIASIS (diagnosis)

Ghaemi, Mir Reza
GOLDENHAR SYNDROME (diagnosis)

Ghafour, Hemmat H.
GARLIC (drug effects)

Ghanavati, Arash
INFANT, NEWBORN

Ghandour, Nagwa M.
MALATHION (toxicity)

Ghani, Fazal
LEISHMANIASIS (epidemiology)

Ghanem, Assad A.
KERATOMILEUSIS, LASER IN SITU

Ghanem, Mahmoud
COLORECTAL NEOPLASMS (diagnosis)
SHOULDER PAIN (diagnosis)

Ghani, Fazal
DENTAL PROSTHESIS

Gharebaghi, Manizheh Mostafa
GOLDENHAR SYNDROME (diagnosis)
Ghasemi, Abdolrahim
INFANT, NEWBORN

Ghassemi, M. Nameei
LEAD POISONING (epidemiology)

Ghauri, Abdul Qayyum
PREOPERATIVE CARE (psychology)

Ghayour Mobaran, Majid
INTERLEUKIN-8 (diagnostic use)

Ghazal, Abdel Hamid A.
HERNIA, VENTRAL (surgery)

Ghiasvand, R.
EICOSAPENTAENOIC ACID

Ghah, Mohamed M.
SIMVASTATIN (toxicity)

Ghiasvand, R.
EICOSAPENTAENOIC ACID

Ghobara, Mohamed M.
SIMVASTATIN (toxicity)

Ghaneim, M. Tharwat
BRAIN ISCHEMIA (etiology)

Ghorobi, Javad
THYROID NODULE (diagnosis)

Ghosh, P.
THALASSEMA (economics)

Ghotbi, Nahid
HYPOXIA-ISCHEMIA, BRAIN (diagnosis)

Giovanoni, M.R.
HIV INFECTIONS (epidemiology)

Givianrad, Mohammad Hadi
MILK (chemistry)

Gokcen, Basaranoglu
POSTOPERATIVE COMPLICATIONS

Goksu, Sitki
THROMBASTHENIA

Golchai, J.
DIROFILARIASIS (diagnosis)

Goodarzynjad, Hamidreza
LENGTH OF STAY

Gorji, Fatemeh Abdollah
THYROID NODULE (diagnosis)

Gormus, Niyazi
EISENEMGER COMPLEX

Grobebee, Diederick
CALCINOSIS (epidemiology)

Gul, Adnan Mahmood
CARDIOVASCULAR DISEASES (etiology)

Gul, Rauf
THROMBASTHENIA

Gyang, P.V.
SCHISTOSOMIASIS HAEMATOBIA

Habib, O.S
DELIVERY, OBSTETRIC (psychology)

Haddad, Qais A.
TUBERCULOSIS, PULMONARY (diagnosis)

Hadi, Ussama
TRACHEA (pathology)

Hafez, Mohamed
ELECTROMAGNETIC FIELDS (adverse effects)

Hafiz ur Rahman
VENTRICULAR FUNCTION

Hafizullah, Mohammad
CARDIOVASCULAR DISEASES (etiology)

Haghighat, Mahmood
GILBERT DISEASE

Haghighi, Mohammad
LARYNGEAL MASKS

Haghighi, Zahra Ojaghi
CORONARY STENOSIS (diagnosis)

Haji abdolbaghi, M.
FLAVIVIRUS INFECTIONS (epidemiology)

Hajian, K.
BONE DENSITY

Hakim, Mojtaba
SCLERODERMA, SYSTEMIC

Halim, Magid M.
HIV INFECTIONS (transmission)

Haluk, Ozdemir
POSTOPERATIVE COMPLICATIONS

Hamad, Ahmed
EPILEPSY (diagnosis)

Hamdan, Abdul Latif
TRACHEA (pathology)

Hamdan, Naeem Raza
MUCOCCELL (pathology)

Hamed, Mohamed S.
DENTAL IMPLANTS, SINGLE-TOOTH

Hamed, Tamer A.
DENTAL IMPLANTS, SINGLE-TOOTH

Hamissi, J.
ORAL HYGIENE

Hamze, M.
MYCOBACTERIUM TUBERCULOSIS (isolation and purification)

Hanif, Mohammad Shoai
CEREBROVASCULAR CIRCULATION

Hanora, Amro
PORIFERA

Haruna, T.
WOUND INFECTION (microbiology)

Hasan, H.E.
LUPUS ERYTHEMATOSUS, SYSTEMIC (immunology)

Hashim, Rizwan
GONADAL DYSGENESIS

Hashmat, Asif
AMLODIPINE (therapeutic use)
Hashmi, Javed  
SURGICAL PROCEDURES, OPERATIVE (adverse effects)

Hassan, Magda M.A.  
9,10-DIMETHYL-1,2-BENZANTHRACENE (toxicity)

Hassan, Nadia F.  
SIMVASTATIN (toxicity)

Hassanein, Nargues M.  
OBESITY (genetics)

Hassouna, Mohamed E.  
URINARY INCONTINENCE (etiology)

Havaei, S.A.  
LEUKOCIDINS (genetics)

Heidari, B.  
BONE DENSITY

Heidari, P.  
BONE DENSITY

Hekmat, Manuchehr  
INFANT, NEWBORN

Hemmati, Fariba  
GILBERT DISEASE

Heshmati, Behnaz Nozary  
SCLERODERMA, SYSTEMIC

Hikmatullah  
VENTRICULAR FUNCTION

Hokenek, Faruk  
AORTIC COARCTATION (surgery)

Hoseinkhan, N.  
DIARRHEA (epidemiology)

Hoshmand, S.  
BONE DENSITY

Hosny, Marwa M.  
DIABETES MELLITUS, TYPE 2

Hosseini, M.  
EICOSAPENTAENOIC ACID

Hosseini, Seyed Hamzeh  
HERNIA, DIAPHRAGMATIC (chemically induced)

Houshmand, Massoud  
ANEMIA, MACROCYTIC (genetics)

Hussain, Cheragh  
VENTRICULAR FUNCTION

Hussain, Ijaz  
MEDIASTINAL DISEASES (diagnosis)

Hussain, Mushtaq  
APPENDECTOMY (methods)

Hussain, Ramzan  
INFRATENTORIAL NEOPLASMS (pathology)

Hussain, Tassawar  
HELICOBACTER INFECTIONS (epidemiology)

Hussein, Abbashar  
EPILEPSY (diagnosis)

Ibraheem, Lubna M.  
OBESITY (genetics)

Ibrahim, Ahmed  
UTERINE RUPTURE

Ibrahim, Mohamed Izham Mohamed  
DRUGS, ESSENTIAL (supply and distribution)

Ibrahim, Muhammad Tahir  
PLEURAL EFFUSION (etiopathology)

Iffet, Shazia  
DISSEMINATED INTRAVASCULAR COAGULATION (epidemiology)

Imam, Mohamed  
DIABETES MELLITUS, TYPE 2 (complications)

Imtiaz, Nauman  
BLOOD VESSELS (injuries)

Inam ul Haq  
ORBITAL PSEUDOTUMOR (diagnosis)

Iqbal, Muhammad  
SPHINCTEROTOMY, ENDOSCOPIC

Iqbal, Tariq  
CLEF LIP (surgery)

Irfan ul Haq  
ROTATOR CUFF (injuries)

Ishaq, Muhammad  
AORTIC ANEURYSM, ABDOMINAL (surgery)

Ismaiel, Ali E.  
DIABETES MELLITUS, TYPE 2 (epidemiology)

Ismail, Abdel Naby S.  
COLORECTAL NEOPLASMS (diagnosis)

Ismail, Abdulsalam  
TOMOGRAPHY, X-RAY COMPUTED

Ismail, Emad El Din F.  
DIABETES MELLITUS, TYPE 2 (genetics)

Issa, Hussain  
ANASTOMOSIS, ROUX-EN-Y (adverse effects)

Jaafar, Haifaa Y.  
DIABETES MELLITUS, TYPE 1 (complications)

Jabbour Khoury, Samar I.  
POSTOPERATIVE NAUSEA AND VOMITING (drug therapy)

Jacob, J.  
WOUND INFECTION (microbiology)

Jadbabaei, Mohammad Hossein  
ATHLETES

Jafari, B. Pour  
ALBINISM, OCULOCUTANEOUS (genetics)

Jafari, F.  
DIARRHEA (epidemiology)

Jafari, Fahim Haider  
OLFACTORY MUCOSA (anatomy and histology)

Jafari, R.  
LEISHMANIASIS (epidemiology)
Jafart, H. Pour
ALBINISM, OCULOCUTANEOUS (genetics)

Jahanbin, Arezoo
MALOCCLUSION (therapy)

Jaju, S.
NUTRITION SURVEYS

Jalali Zand, N.
LEISHMANIASIS (epidemiology)

Jamal, Shahid
DEATH, SUDDEN, CARDIAC

Jamshidiha, F.
PNEUMOCONIOSIS

Jan, Behrawar
BIOPSY (methods)

Jan, Hameedullah
DIASTEMA

Jan, Hikmatullah
CARDIOVASCULAR DISEASES (etiology)

Jan, Qutbe Alam
CHOLECYSTECTOMY, LAPAROSCOPIC

Jan, Waqar Alam
APPENDECTOMY (methods)

Jani, N.
EICOSAPENTAENOIC ACID

Javaid, Arshad
TUBERCULOSIS (epidemiology)

Javanbakht, M.H.
DERMATITIS, ATOPIC

Javed Rehman
MACROGLOSSIA (etiology)

Joharapurkar, Sudhakar Ratanlal
ENCEPHALOCELE

Judi, Layla
TRANSAMINASES (blood)

Jumah, Nadia A.
DIABETES MELLITUS, TYPE 2 (epidemiology)

Kalleny, Nagwa Kostandy
SKIN (anatomy and histology)

Kamel, Mohamed I.
DIABETES MELLITUS, TYPE 2 (epidemiology)

Kaplan, Levent
AORTIC COARCTATION (surgery)

Karam, Khaled
COLORECTAL NEOPLASMS (diagnosis)

Karam, Khaled S.
SHOULDER PAIN (diagnosis)

Karimi, Abbasali
CAROTID STENOSIS (epidemiology)

Karimian, Farid
CORNEAL WAVEFRONT ABERRATION

Karimzade, Parvaneh
ANEMIA, MACROCYTIC (genetics)

Karnik, A.B.
SILICOSIS

Kassem, Mohamed S.
PRE-ECLAMPSIA (diagnosis)

Kawgi, Rania Zoheir Bacri
ABORTION, THREATENED (diagnosis)

Keema, Arshad
APPENDICITIS (parasitology)

Keramati, M.R.
LEAD POISONING (epidemiology)

Kerem, Erkalp
POSTOPERATIVE COMPLICATIONS

Kermani, N.A.
DIARRHEA (epidemiology)

Keshavarz, S.A.
EICOSAPENTAENOIC ACID
DERMATITIS, ATOPIC

Keyvani, H.
FLAVIVIRUS INFECTIONS (epidemiology)

Khader, Yousef
TRANSAMINASES (blood)

Khaghani, Shahnaz
MILK (chemistry)

Khaji, A.
WAR

Khalaf, Adel M.
COLORECTAL NEOPLASMS (diagnosis)

Khaled, Al Aghbari
ENDOCARDITIS (diagnosis)

Khalifa, Yasser
STEM CELL TRANSPLANTATION

Khalil, Mahmoud S.
DOXORUBICIN (toxicity)

Khalil, Sahar
DOXORUBICIN (toxicity)

Khalique, Ahmed Bilal
SPINAL FUSION

Khamesipour, A.
LEISHMANIASIS (epidemiology)

Khan, Abdul Aziz
INFRATENTORIAL NEOPLASMS (pathology)

Khan, Abdur Rehman
MEDIASTINAL DISEASES (diagnosis)

Khan, Abdus Samad
APPENDECTOMY (methods)

Khan, Amir Taimur
CLEFT LIP (surgery)
Khan, Arif O.
CONJUNCTIVAL DISEASES (diagnosis)

Khan, Asif Ullah
DENTAL PROSTHESIS

Khan, Ata Ullah
ENCEPHALOCELE

Khan, Farooq Ahmad
GONADAL DYSGENESIS

Khan, Hidayatullah
LYMPH NODES (pathology)

Khan, Imram
POSTPARTUM HEMORRHAGE (drug therapy)

Khan, Mansoor
CHOLECYSTECTOMY, LAPAROSCOPIC

Khan, Mohammad Yousaf
MADESTINAL DISEASES (diagnosis)

Khan, Muhammad Ayub
CLEFT LIP (surgery)

Khan, Muhammad Babar
AMILODIPINE (therapeutic use)

Khan, Muhammad Naeem
HELICOBACTER INFECTIONS (epidemiology)

Khanzada, Khalid
APPENDICETOMY (methods)

Khateri, S.
WAR

Khatib, M. Amer
TRANSAMINASES (blood)

Khatib, S.
NEOPLASMS (epidemiology)

Khattak, Isfaq
DIABETIC FOOT

Khodadad, Ahmad
HELICOBACTER INFECTIONS (drug therapy)

Kholeif, A.
PRE-ECLAMPSIA

Khousam, Nabil E.
POSTOPERATIVE NAUSEA AND VOMITING (drug therapy)

Kiavar, Majid
HEART RUPTURE, POST-INFARCTION (diagnosis)

Kinoglu, Barbaras
AORTIC COARCTATION (surgery)

Kitagawa, Maki
APPENDICITIS (parasitology)

Kocailik, Ali
CORONARY VESSEL ANOMALIES (diagnosis)

Kolkailah, Kareem
STEM CELL TRANSPLANTATION

Korish, Aida A.
CORONARY DISEASE

Kowsarian, S.
PNEUMOCONIOSIS

Kucheki, M.
BURNS, CHEMICAL

Kulacoglu, H.
ECHINOCOCCOSIS (diagnosis)

Kumar, Ashwini
PREGNANCY COMPLICATIONS, NEOPLASTIC (surgery)

Kumar, Neeraj
PREGNANCY COMPLICATIONS, NEOPLASTIC (surgery)

Laiq, Nasreen
ECTODERMAL DYSPLASIA (surgery)

Lakeh, Maziar Moradi
SCLERODERMA, SYSTEMIC

Latif, Rabia
EUTHANASIA

Leyla, Saidoglu
POSTOPERATIVE COMPLICATIONS

Maaliki, H.
POST-DURAL PUNCTURE HEADACHE

Maamouri, Gholamali
INTERLEUKIN-8 (diagnostic use)

Madkour, Somaya A.
TOLUENE (toxicity)

Mahad, H.
HIV INFECTIONS (epidemiology)

Mahdavi, Kia Nouri
WOLFRAM SYNDROME

Mahdi, S.S.
DELIVERY, OBSTETRIC (psychology)

Mahmood ur Rehman
DIVING (adverse effects)

Mahmoodzadeh, Hossein
DEXTROMETHORPHAN

Mahmoud, Doaa Hanafy
DIABETES MELLITUS, TYPE 2 NEURONAL CEROID-LIPOFUSCINOSIS (diagnosis)

Mahmoud, Sahar A.
TOLUENE (toxicity)

Mahrous, Hanan S.
DNA DAMAGE (genetics)

Maitra, Gaurab
POSTPARTUM HEMORRHAGE (therapy)

Maktabi, Azzah
HISTIOCYTOMA, MALIGNANT FIBROUS

Maleki, Arash
VITREOUS DETACHMENT (drug therapy)

Malik, Arsalan Sharif
SPINAL FUSION
Malik, Kamran Zammurrad
MACROGLOSSIA (etiology)

Malik, Maujid Masood
TOBACCO SMOKE POLLUTION

Malik, Muhammad Farooq
HELICOBACTER INFECTIONS (epidemiology)

Malik, Tahir
SURGICAL PROCEDURES, OPERATIVE (adverse effects)

Malik, Tariq Masood
DEATH, SUDDEN, CARDIAC

Malik, S.
THALASSEMIA (economics)

Mandal, Pankaj K.
THALASSEMIA (economics)

Manna, N.
THALASSEMIA (economics)

Mansour, Araf
ANESTHESIOLOGY (manpower)

Mansour, Magda A.
CYCLOSPORINE (toxicity)
LIVER CIRRHOSIS, EXPERIMENTAL (drug therapy)

Manzoor, Syed Mohsin
GONADAL DYSGENESIS

Manzoor, Tahir
TINNITUS (drug therapy)

Maqbool, Muddasir
APPENDICITIS (parasitology)

Maqbool, Shahzad
TINNITUS (drug therapy)

Marzban, Mehrab
CAROTID STENOSIS (epidemiology)

Massarrat, S.
HELICOBACTER PYLORI (isolation and purification)

Mattar, Fathy
ELECTROMAGNETIC FIELDS (adverse effects)

Mayo, Cody
ANESTHESIA

Mazhari, Najmeh
MILK (chemistry)

Mazroa, Shireen A.
NITRIC-OXIDE SYNTHASE (analysis)

McIntosh, Kenneth
INFLUENZA A VIRUS, H1N1 SUBTYPE

Megahed, Haidy M.
HELICOBACTER INFECTIONS (epidemiology)

Megahed, Haidy M.
HELICOBACTER INFECTIONS (epidemiology)

Megahed, Haidy M.
HELICOBACTER INFECTIONS (epidemiology)

Megahed, Haidy M.
HELICOBACTER INFECTIONS (epidemiology)

Megahed, Haidy M.
HELICOBACTER INFECTIONS (epidemiology)

Mehmood, Aamer
GLUCOSEPHOSPHATE DEHYDROGENASE DEFICIENCY (epidemiology)

Mellies, Mahmoud
PRE-ECLAMPSIA (diagnosis)

Memish, Ziad A.
INFLUENZA A VIRUS, H1N1 SUBTYPE
TUBERCULOSIS, PULMONARY (diagnosis)

Memon, Ajson
HYPERTENSION, PREGNANCY-INDUCED (epidemiology)

Menzie, Dick
TUBERCULOSIS, PULMONARY (diagnosis)

Minhas, Liaquat Ali
OLFATORY MUCOSA (anatomy and histology)

Mirandam, Ahmad
HEART RUPTURE, POST-INFARCTION (diagnosis)

Mirhendi, H.
LEISHMANIASIS (epidemiology)

Mirmiranpour, Hossein
MILK (chemistry)

Mirshafley, A.
DERMATITIS, ATOPIC

Mirshemirani, Alireza
THYROID NODULE (diagnosis)

Mirza, Shakeel Ahmed
HELICOBACTER INFECTIONS (epidemiology)

Mirza, Tariq
ROTATOR CUFF (injuries)

Mishra, Pragyadipa
PROPOFOL

Mitra, Jayanta
POSTPARTUM HEMORRHAGE (therapy)

Moad, Ashraf I.
KERATOMILEUSIS, LASER IN SITU

Modarres, Mehdi Zadeh
VITREOUS DETACHMENT (drug therapy)

Moghadam, J. Rastegar
LEAD POISONING (epidemiology)

Moghadam, S. Obadian
LEUKOCIDINS (genetics)

Moghadam, Esmaiel Sanei
HEPATITIS C (genetics)

Mohamed, Abeer A.K.
DOXORUBICIN (toxicity)

Mohamed, Adham R.
CORONARY DISEASE
BRAIN ISCHEMIA (etiolog)

Mohamed, E.Y.
HYSTERECTOMY (adverse effects)

Mohamed, Mervat E.
BRAIN ISCHEMIA (etiolog)
Mohamed, Sherif K.
Hysterectomy (adverse effects)

Mohammadi, A.
Flavivirus infections (epidemiology)

Mohammadi, Mahmoud
Seizures, febrile (diagnosis)

Mohammadzadeh, Ali
Laryngeal masks

Mohammed, Abdelbadia A.A.
Dental implants, single-tooth

Mohanied, Aida M.
Urinary incontinence (etiopathology)

Mohobali, M.
Pistacia

Mohiebbi, Ahmad
Nitric oxide synthase type III (genetics)

Moin, Mostafa
Immunologic deficiency syndromes (history)

Mojarad, H.N.
Diarrhea (epidemiology)

Mokhtar, Mohamed M.
Obesity (genetics)

Mokhtari Dizaji, Manihe
Coronary stenosis (diagnosis)

Moladoust, Hassan
Coronary stenosis (diagnosis)

Morsi, M.
Nutrition surveys

Mortazavi, Zhaleh
Hyperbilirubinemia, neonatal (drug therapy)

Moshtaghi, Naghmeh
Carotid stenosis (epidemiology)

Mostafa, Manal
Analgesia, epidural

Mostafa, Nadia A.
Vascular endothelial growth factors

Motamed, Farzaneh
Helicobacter infections (drug therapy)

Moukarbel, Roger V.
Trachea (pathology)

Mousa, Ahmed
Glaucoma (therapy)

Mousa, Wesam F.
Analgesia, epidural

Mousavi, Seyed Abdullah
Hernia, diaphragmatic (chemically induced)

Moussa, Ashraf
Anesthesiology (manpower)

Moussa, Ashraf
Histerectomy (adverse effects)

Movafegh, Ali
Dextromethorphan

Movahedi, Homa
Laryngeal masks

Movahedi, Namvar
Carotid stenosis (epidemiology)

Mrsic, Jovica Mile
Retinal artery occlusion

Muawia, Shaden
Lupus nephritis (physiopathology)

Mubarak, Azhar
Death, sudden, cardiac

Mubark, Bedraldin
Epilepsy (diagnosis)

Mukhairi, Mohammed
Polycythemia vera (complications)

Mukhopadhyay, Ashish
Anthropometry

Munir, Tahir Ahmad
Euthanasia

Mushtaq, Mamoon
Labor, induced (methods)

Mukhtar, Mohamed M.
Obesity (genetics)

Naderian, Gholamali
Wolfram syndrome

Nafees, Muhammad
Appendicitis (diagnosis)

Najafi, Mahdi
Length of stay

Najafi, Mehri
Helicobacter infections (drug therapy)

Najam us Saqib
Aortic aneurysm, abdominal (surgery)

Najibi, Babak
Hypoxia-ischemia, brain (diagnosis)

Nakhae, Alireza
Nitric oxide synthase type III (genetics)

Nandi, Biswajit
Postpartum hemorrhage (therapy)

Naqvi, Syeda Rifaat Qamar
Biopsy (methods)

Naqvi, Syeda Saima Qamar
Biopsy (methods)

Naseem ul Haq
Ectodermal dysplasia (surgery)
Prabhakar, Hemanshu
INFRATENTORIAL NEOPLASMS (surgery)

Prinja, S.
HEALTH POLICY

Prokop, Mathias
CALCINOSIS (epidemiology)

Qadir, Manzoor
AMLODIPINE (therapeutic use)

Qamar, Tehmina
TOBACCO SMOKE POLLUTION

Qayum, Mamuna
DINOPROST (therapeutic use)

Qazi, Qudsia
POSTPARTUM HEMORRHAGE (drug therapy)

Qudaisat, Ibraheem
DEXMEDETOMIDINE (therapeutic use)

Qureshi, Muhammad Asad
SPINAL FUSION

Rabie, Mohammad I.
ROOT CANAL PREPARATION

Rabie, Mohammad I.
ROOT CANAL PREPARATION

Radman, Maja
MACROPHAGE ACTIVATION SYNDROME (diagnosis)

Radwan, Mohamed A.
RADIUS FRACTURES (therapy)

Radwan, Mona
PORIFERA

Ragab, Ibrahim K.I.
HERNIA, INGUINAL (pathology)

Ragab, Saadia
ALUMINUM COMPOUNDS (adverse effects)

Ragae, Alyaa
HOMOCYSTEINE (toxicity)

Rahim, Amena
TOBACCO SMOKE POLLUTION

Rahmo, A.
MYCOBACTERIUM TUBERCULOSIS (isolation and purification)

Ramezani, Alireza
NEOVASCULARIZATION, PATHOLOGIC

Rashidi, Houman
HERNIA, DIAPHRAGMATIC (chemically induced)

Rashidian, A.
PHYSICIAN-PATIENT RELATIONS

Rassì, Y.
LEISHMANIASIS (epidemiology)

Rath, Girija P.
INFRATENTORIAL NEOPLASMS (surgery)

Raza, Saleem
ROTATOR CUFF (injuries)

Razavi, Zahra
NERVOUS SYSTEM DISEASES (genetics)

Razeghinejad, Mohammad Reza
ATRACURIUM (therapeutic use)

Rehan e Kibria
HERNIA, INGUINAL

Rehman, Asif
APPENDICITIS (diagnosis)

Rehmani, Jamshed Ahmed
HERNIA, INGUINAL

Rezaei, Nima
IMMUNOLOGIC DEFICIENCY SYNDROMES (history)

ANEMIA, MACROCYTIC (genetics)

Riad, Walked
ANESTHESIOLOGY (manpower)

Risk, Mustafa
PRE-ECLAMPSIA (diagnosis)

Rizk, Ahmed Abdel Aziz M.
CONTRACEPTIVE AGENTS, FEMALE (administration and dosage)

Rizk, Ahmed Mohamed
ABORTION, THREATENED (diagnosis)

Rizvi, Farwa
DIVING (adverse effects)

Rizvi, Syed Ausaf Ali
CEPHALOMETRY

Rooh ul Muqim
CHOLECYSTECTOMY, LAPAROSCOPIC

Roshanzamir, Fatolah
THYROID NODULE (diagnosis)

Rudra, Amitava
POSTPARTUM HEMORRHAGE (therapy)

Rutten, Annemarieke
CALCINOSIS (epidemiology)

Saad, Alaa E.
HEPATECTOMY

Saad, Mohamed
EPILEPSY (diagnosis)

Saade, M.
MYCOBACTERIUM TUBERCULOSIS (isolation and purification)

Sabaghi, M. Aalabaf
MORTALITY

Sabek, Nagwan A.
DIABETES MELLITUS, TYPE 2

Sabour, Siamak
CALCINOSIS (epidemiology)

Sabra, Omar
TRACHEA (pathology)

Sadeeq ur Rehman
DIABETIC FOOT

Sadigh, G.
OCCUPATIONAL EXPOSURE
Sadrabadi, Fatemeh Shahi  
MILK (chemistry)

Saeed, Muhammad Katran  
PLEURAL EFFUSION (etiology)

Safa  
EPILEPSY (diagnosis)

Safdar, Chaudhary Aqeel  
HERNIA, INGUINAL TRIAGE

Said, Mohammad  
LYMPH NODES (pathology)

Saied, Mohammed  
LUPUS NEPHRITIS (physiopathology)

Sajjadi, Valleh  
WOLFRAM SYNDROME

Saki, Forugh  
GILBERT DISEASE

Saki, Nasrin  
GILBERT DISEASE

Saleem, Muhammad  
POLYCYTHEMIA VERA (complications)  
LYMPH NODES (pathology)

Saleh, Fawzia Mahmoud  
ABORTION, THREATENED (diagnosis)

Salehiomran, Abbas  
CAROTID STENOSIS (epidemiology)

Salehipour, Masoud  
NEOVASCULARIZATION, PATHOLOGIC (drug therapy)

Salehpoor, Shadab  
THYROID NODULE (diagnosis)

Salem Noha A.  
ULTRAVIOLET RAYS (adverse effects)

Salem, Mona Abd Alkader  
NEURONAL CEROID-LIPOFUSCINOSIS (diagnosis)

Salem, Noha A.  
ULTRAVIOLET RAUP (adverse effects)

Salimi, Saeedeh  
NITRIC OXIDE SYNTHASE TYPE III (genetics)

Salour, Hossein  
TROCHLEAR NERVE DISEASES (diagnosis)  
ABDUCENS NERVE DISEASES (surgery)  
HEMANGIOMA, CAVERNOUS

Samir M.E.  
HYSTERECTOMY (adverse effects)

Saqib, M.  
CARDIOVASCULAR DISEASES (etiology)

Sarayrah, Majed A.  
INTESTINAL OBSTRUCTION (mortality)

Sardar, Jadab C.  
THALASSEMIA (economics)

Sarkilar, Gamze  
EISENMENGER COMPLEX

Sarwar, Shakeel  
APPENDICITIS (diagnosis)

Sayem, N.  
ACQUIRED IMMUNODEFICIENCY SYNDROME (psychology)

Schouw, Yvonne van der  
CALCINOSIS (epidemiology)

Seddighinejad, Abbas  
LARYNGEAL MASKS

Seif, Marwa  
HODGKIN DISEASE (drug therapy)

Seirafi, H.  
DERMATITIS, ATOPIC

Selimoglu, Ozer  
CORONARY VESSEL ANOMALIES (diagnosis)

Sengupta, Saikat  
POSTPARTUM HEMORRHAGE (therapy)

Sepahi, Mohsen Akhavan  
HYPOPARATHYROIDISM

Shabayek, Sarah AA.  
PREGNANCY TRIMESTER, THIRD

Shabbier, Ghulam  
DIABETIC FOOT

Shademianfar, S.  
LEAD POISONING (epidemiology)

Shadgar, Bita  
RETINAL NEOVASCULARIZATION (diagnosis)

Shadman, Muhammad  
CLEFT LIP (surgery)

Shafiee, Sayed M.  
NITRIC OXIDE SYNTHASE TYPE III (genetics)

Shah, Farrukh Saleem  
CEREBROVASCULAR CIRCULATION

Shah, Firdous  
APPENDICITIS (parasitology)

Shah, Mian Qaiser Ali  
SPINAL FUSION

Shah, Mubashar  
CEREBROVASCULAR CIRCULATION

Shaheed, Mehwish  
CEPHALOMETRY

Shahin, Mohamed  
STEM CELL TRANSPLANTATION

Shahraki, Mansour  
HEPATITIS C (genetics)

Shahraki, Touran  
HEPATITIS C (genetics)

Shahzad, Tahir  
MACROGLOSSIA (etiology)

Shakeri, Mohammad Taghy  
INTERLEUKIN-8 (diagnostic use)
Shalaby, Nawar M.
Estradiol (adverse effects)
Simvastatin (toxicity)

Shami, Shoaleh
Piperidines (therapeutic use)

Shamshiri, Ahmadreza
Urinary tract infections (etiology)

Shaqweer, Mostafa M.
Colorectal neoplasms (diagnosis)
Shoulder pain (diagnosis)

Sharaan, Marwa E.
Root canal preparation

Sharafi, Reza
Hyperbilirubinemia, neonatal (drug therapy)

Sharafi, Simin
Hyperbilirubinemia, neonatal (drug therapy)

Shareghi, N.
Leishmaniasis (epidemiology)

Sharepoor, Maria
Eye foreign bodies (surgery)

Sharma, B.S.
Pregnancy complications, neoplastic (surgery)

Sharma, Kiran
Tongue neoplasms (complications)

Sharma, Y.K.
Silicosis

Shehata, Osama H.
Diabetes mellitus, type 2 (complications)
Lupus nephritis (physiopathology)
Hepatitis C, chronic (genetics)

Sheikhhafollahlai, Mahmood
Length of stay

Sheta, Abeer A.
Wounds and injuries

Shirani, Shapour
Carotid stenosis (epidemiology)

Shoaib, Khawaja Khalid
Phacoemulsification (adverse effects)
Orbital pseudotumor (diagnosis)

Shome, Debraj
Eyelid neoplasms

Shooshtry, Fatemeh Khalifeh
Hypoparathyroidism

Shoro, Amir Ali
Olfactory mucosa (anatomy and histology)

Shoukat, Nazish
Aortic aneurysm, abdominal (surgery)

Siassi, F.
Dermatitis, atopic

Siavoshi, F.
Helicobacter pylori (isolation and purification)

Siddiqi, Hammad Ahmad
Rotator cuff (injuries)

Sidig, A.
Epilepsy (diagnosis)

Simi, A.
Burns, chemical

Simmons, Daniel L.
Prostaglandin-endoperoxide, synthases

Singh, Daljit
Respiratory function tests

Singh, Jang
Appendicitis (parasitology)

Singh, Neena
Pregnancy complications, neoplastic (surgery)

Sobhani, Mohammad
Helicobacter infections (drug therapy)

Sohoo, Nisar Ahmed
Hypertension, pregnancy-induced (epidemiology)

Sokar, Samia S.
Hypertension (chemically induced)

Soldo Juresa, Dragica
Macrophage activation syndrome (diagnosis)

Soliman Gehan M.
Diethylhexyl phthalate (toxicity)

Soliman, Gehan M.
Acute lung injury (chemically induced)
Thyroid gland (drug effects)

Soliman, Maha E.
Methotrexate (toxicity)

Soltani, M.
Breast feeding (epidemiology)

Soroush, A.R.
War

Soroush, M.R.
War

Sriha, A.
Breast feeding (epidemiology)

Staikou, Chryssonoula
Laryngeal masks

Stankovic Babic, Gordana Ljubomir
Retinal artery occlusion

Suliman, Howayda S.
Coronary disease
Wounds and injuries

Sunay, Mehmet Melih
Anesthesia, spinal

Tabari, Ahmad Khaleghnejad
Thyroid nodule (diagnosis)

Tabei, Hesam
Atracurium (therapeutic use)
Tag El Din, Loaa A.
DIABETES MELLITUS, TYPE 2 (genetics)

Taghdiri, Mohammad Mehdi
NERVOUS SYSTEM DISEASES (genetics)

Taherian, Masoomeh
URINARY TRACT INFECTIONS (etiology)

Tahir, Mohammad
OLFACTORY MUCOSA (anatomy and histology)
AMLODIPINE (therapeutic use)

Tahmeedullah
ECTODERMAL DYSPLASIA (surgery)

Taka, Ito
LIVER TRANSPLANTATION (adverse effects)

Takada, Yasutugu
LIVER TRANSPLANTATION (adverse effects)

Talab, Abdel Aziz A.
LIVER CIRRHOSIS, EXPERIMENTAL (drug therapy)

Tanaka, Koichi
LIVER TRANSPLANTATION (adverse effects)

Taran, M.
PISTACIA

Taregh, Shoja Alhagh
ATRACURIUM (therapeutic use)

Tariq, Muhammad
FURUNCULOSIS

Tarsitani, G.G.
HIV INFECTIONS (epidemiology)

Tashkandi, Esam
PROTHESIS COLORING

Tavilani, Heidar
NITRIC OXIDE SYNTHASE TYPE III (genetics)

Tawfic, Qutaiba Amir
PROPOFOL

Tawil, Ayman
TRACHEA (pathology)

Thabet, Mostafa
HERNIA, INGUINAL (pathology)

Tiwari, R.R.
SILICOSIS

Torabi, Z.
HEARING LOSS, SENSORINEURAL

Toukan, Ala
TRANSAMINASES (blood)

Tsaroucha, Athanassia
LARYNGEAL MASKS

Turkyilmaz, Esra
ANESTHESIA, SPINAL

Ugurlucan, Murat
CORONARY VESSEL ANOMALIES (diagnosis)
AORTIC COARCTATION (surgery)

Ullah, Muhammad Usman
AMLODIPINE (therapeutic use)

Ullah, Zaka
WEIGHT-BEARING

Umar, Muhammad
PLEURAL EFFUSION (etioloogy)

Umer, I. Farooq
CEREBROVASCULAR CIRCULATION

Unal, Egeli
POSTOPERATIVE COMPLICATIONS

Uryuhara, Kinji
LIVER TRANSPLANTATION (adverse effects)

Us, Melih
CORONARY VESSEL ANOMALIES (diagnosis)

Usman, Brig Javaid
INFLUENZA A VIRUS, H1N1 SUBTYPE

Usman, Muhammad
APPENDICITIS (methods)

Vafi, Nasser
NEOVASCULARIZATION, PATHOLOGIC (drug therapy)

Valavi, Ehsan
ANEMIA, SICKLE CELL (diagnosis)

Varastehravan, Hamidreza
ARTERIES (injuries)

Vaziri, P. Bakianian
ORAL HYGIENE

Wani, Imtiaz
APPENDICITIS (parasitology)

Wankhede, Ravi
POSTPARTUM HEMORRHAGE (therapy)

Widaa, Y.A.
EPILEPSY (diagnosis)

Yadollahie, M.
BREAST NEOPLASMS (etiology)

Yaghmaei, Minoo
PIPERIDINES (therapeutic use)

Yah, S.C
WOUND INFECTION (microbiology)

Yaseri, Mehdi
NEOVASCULARIZATION, PATHOLOGIC (drug therapy)

Yassien, Faroug
EPILEPSY (diagnosis)

Yilmaz, Mehmet
THROMBASTHENIA

Yousaf, Kanwal
CLEFT LIP (surgery)
Yousaf, Muhammad Ali
AMLODIPINE (therapeutic use)

Yousif, Mirghani Abd Elrahman
DRUGS, ESSENTIAL (supply and distribution)

Yousry, M.M.A.
HYSTERECTOMY (adverse effects)

Yousry, Mohamed
PRE-ECLAMPSIA

Yousry, Mohamed A.
PRE-ECLAMPSIA (diagnosis)

Zachariah, Sunny
POLYCYTHEMIA VERA (complications)

Zaghloul, Mervat S.
ELECTROMAGNETIC FIELDS (adverse effects)

Zaheer, Saqib
DIVING (adverse effects)

Zahid, Samina
GUILLAIN-BARRE SYNDROME (rehabilitation)

Zahoor, Shafaq
OSTEOPOROSIS, POSTMENOPAUSAL (epidemiology)

Zahran, Samer Mahmoud
KIDNEY (pathology)

Zaidi, Riaz
WEIGHT-BEARING

Zali, M.R.
DIARRHEA (epidemiology)

Zamanian, A.
ALBINISM, OCULOCUTANEOUS (genetics)

Zand, Hamid
NITRIC OXIDE SYNTHASE TYPE III (genetics)

Zandian, Khodamorad
ANEMIA, SICKLE CELL (diagnosis)

Zare, G.
LEAD POISONING (epidemiology)

Zargar, M.
WAR

Zarir, Mohammad
CHOLECYSTECTOMY, LAPAROSCOPIC

Zawawi, Khalid H.
MALOCCLUSION (surgery)

Zbeidy, Reine A.
POSTOPERATIVE NAUSEA AND VOMITING (drug therapy)

Zeidan, A.
POST-DURAL PUNCTURE HEADACHE

Zubair, Alia
DEATH, SUDDEN, CARDIAC

Zulkifle, M.
PULMONARY CIRCULATION
Appendix II

List of EMR Journals Indexed in IMEMR

(by country)
<table>
<thead>
<tr>
<th>Journal Title</th>
<th>ISSN</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arab Journal for Food and Nutrition</td>
<td>1608-8352</td>
<td>Active</td>
</tr>
<tr>
<td>Bahrain Medical Bulletin</td>
<td>1012-8298</td>
<td>Active</td>
</tr>
<tr>
<td>JBMS - Journal of the Bahrain Medical Society</td>
<td>1015-6321</td>
<td>Active</td>
</tr>
<tr>
<td><strong>Egypt (127)</strong></td>
<td></td>
<td></td>
</tr>
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Last update December 2010
Appendix III

List of EMR Journals Indexed in IMEMR

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