

ABSTRACTS TO BE PRESENTED

DOI: <http://dx.doi.org/10.5915/22-3-14309>

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AL-ZAHRĀWĪ, THE GREAT MUSLIM SURGEON OF SPAIN. *N Ahmed, MD*, Department of Pediatric Surgery, St. Petersburg, FL.

Al-Zahrāwī, the magnificent surgeon of the Middle Ages had been known by various names like Albucasis, Bulcasis, Alsarbius, Alzahravius or Ezaharagui. His full name was 'Abdul-Qāsim Khalaf ibn 'Abbās al-Zahrāwī. He was born in the royal city of al-Zahrā' about five miles of "Qurṭubah" (Cordova) in 930 A.D. He attended the well known University of Cordova. "Qurṭubah" at that time was the magnificent capital of al-Andalus, with a population of about one million where Muslim culture and science were at their peak. Al-Zahrāwī was an eminent physician and surgeon of the court of caliph 'Abd-ul-Rahmān, III, who was the eight Ummayyad ruler of Spain. He spent a very productive life in practicing medicine, particularly surgery and medical writings. He died in 1013 A.D. at the age of eighty-three.

Al-Zahrāwī's work was part of the tremendous wealth of scientific knowledge which was the basis of the culture and learning of the Golden Age of the Islamic State. This was the time when Muslims established a brilliant empire which was organized, powerful, and sophisticated. The capital of this empire in the east was Baghdad, and in the West it was Cordova. It was into this golden age of the Islamic State that al-Zahrāwī appeared in the western part of the Islamic Empire. He lived in what has been considered the most glorious age of al-Andalus. Besides being a contemporary surgeon, he was a great teacher and prolific writer. He believed that the basic sciences like anatomy and physiology were the bases of good and sound surgery. He taught them as well as surgery.

Al-Zahrāwī wrote thirty treatises comprising his encyclopedia called "Kitāb al-Taṣrīf li-man 'Ajaza 'an al-Ta'līf". The literal meaning is: the book of enabling who can not author knowledge, to manage. The implication being that it is a self-contained manual of medical arts in all its branches; the user need not refer to other work.

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EFFECT OF FASTING RAMAḌĀN ON SOME HORMONES IN HEALTHY MUSLIM MALES. *NA Sliman, MD, KS Ajlouni, MD, FA Khatib, MD, MA Hajer, MD*, Department of Medicine, Faculty of Medicine, University of Jordan, Amman, Jordan.

Twelve healthy non-smoking Muslim male volunteers ranging in age between 35-55 years (average 38 years) were studied by measuring the effect of fasting RamaḌān on their serum level of testosterone, growth hormone, aldosterone, and cortisol. Venous blood samples were taken on four different days: one day before RamaḌān (day zero), then on the first, 14th, and 28th days of RamaḌān. In each of these four days, blood samples were taken at 8 a.m., 1 p.m., 7 p.m. (shortly before evening meal) and 9 p.m. (one hour after evening meal). All samples were assayed at the same time by radio-immunoassay.

Testosterone: There was a significant drop in the 9 p.m. samples as compared to the morning samples (9 p.m. vs 8 a.m.) on all days. This is the expected normal diurnal variation. Comparing values of the other days to day zero values, showed that only the 8 a.m. values dropped gradually through RamaḌān. The drop became significant at day 28.

Cortisol: The assay showed diurnal variation also. A significant rise of the 9 p.m. levels in all the fasting days and a significant rise of 7 p.m. values of day 28 were demonstrated.

There was no change in the level of the other hormones studied.

RITUAL PRAYERS, PHYSICAL AND MENTAL FITNESS. *PA Poonawalla*, Hadapsar, Pune, India.

Standing upright and a state of calmness is required of a Muslim when praying. Bending forward is obligatory. Prostrations are also obligatory. One's forehead must touch the earth. One rests upon seven points of the body; forehead, two palms, two knees and two tops of the toes.

Ṣalat has beneficial influence on body as well as mind. It brings about a body that is perfectly healthy and efficient and a mind that is turned to a high point of sensitivity and calmness. Attention and humility, in ritual prayers become a means of exercise for the mind and sense, so important in life. Ultimately, presence of mind, gathered attention and concentration of thought are important aspects of psychological health. Ablution before the ritual prayer has hygienic benefits both physically and spiritually.

A STUDY OF DIURNAL VARIATION IN SERUM AND URINE OSMOLALITIES AND IN SERUM CORTISOL DURING RAMAḌĀN FASTING. *MJ Alhabbal*, *MRCP*, Mosul General Hospital, Mosul, Iraq.

The daily, approximately 15 hours, of abstinence from food and drink for one month (Ramaḏān) is a unique type of fasting which deserves study on its own. Estimation of serum cortisol and serum and urine osmolalities of 22 healthy volunteers who fasted Ramaḏān, 1407 Hijrī in Mosul was conducted on days 1, 14, and 28 of the fast at 0800 hr and 1900 hr; the latter was just before the break of the fast at sunset. The results revealed a diurnal variation in serum and urine osmolalities that narrowed gradually as fast progressed over the month. The serum cortisol showed high evening values on days 1 and 14 but decreased on day 28. In four of the 66 occasions to compare morning and evening serum osmolalities, the evening values were 2 mOsm/mg lower than the morning values. Our results were interpreted as unexplainable by Arginine Vasopressin (AVP) action on the kidney alone. We postulate that daily fasting for some 15 hours leads during the first week of fasting, to increased capacity of glycogen storage as to suffice covering glucose needs for the new prolonged intermeal interval. It is maintained that increased glycogen synthesis during eating period from sunset to dawn incorporates water intracellularly; the water is released with the glycogenolysis during the daytime. Water released plays a significant role in preventing undue increase in serum osmolality during the daytime abstinence from water. This concept offers explanations to many phenomena that are experienced by people who fast Ramaḏān.

CONSANGUINEOUS MARRIAGES. HOW TO INFORM, ADVISE, AND GUIDE FAMILIES. A BOOKLET FOR HEALTH WORKERS. *N Qureishi, MB*, Coventry, England, United Kingdom.

Consanguineous marriages are relatively frequent in many societies and communities. Since some individuals or population groups may have reservations about consanguineous marriages and their medical consequences, this booklet was prepared to review the topic of consanguinity for health workers so that they can, in turn, counsel and guide the families concerned.

The fact is that consanguineous marriages generally have no harmful consequences. Rarely, they may predispose to certain genetic diseases that are inherited in a particular manner, i.e., autosomal recessive diseases. If the husband and wife are related, the chance that both are carriers (heterozygotes) is increased. This may cause some medical concern. However, especially in some cultures, consanguineous marriages may have a socially stabilizing effect.

Nowadays it is possible to detect carriers of some inherited conditions such as thalassaemia, sickle cell anemia, and Tay-Sachs disease. It is also possible to offer fetal testing in early pregnancy to mothers at risk for bearing children with these diseases. The recent advances in human genetics are steadily increasing the number of diseases that can be tested for, so the amount of useful information that can be offered to married consanguineous couples is increasing.

Each family should be counselled separately. Testing should be offered for relevant conditions when it is feasible, and advice should be given on an individual basis, taking the social situation into account. Health workers should remember that their efforts to promote health and physical well-being are part of a broader aim of providing comfort and happiness and their approach to informing, advising, and guiding families with regard to consanguineous marriages should be oriented toward this broad aim.

Not received on time for publication

DISCRETE CRANIAL TRAITS AS INDICATORS OF ETHNICITY AND AS MARKERS OF CENTRAL NERVOUS SYSTEM DISORDERS. *HJ Chaudhry, BA, MS*, Department of Anatomy, College of Dentistry, New York University, New York, NY.

Wormian bones, the metopic suture and mylohyoid bridges are three discrete cranial traits that offer clues to anatomists and ethnohistorians regarding similarities and differences among ethnic races. The presence of Wormian bones in children has been associated with the development of certain central nervous system disorders including osteogenesis imperfecta, cleidocranial dysostosis, cretinism and hydrocephalus. In a study, the cranial skeletal remains of 60 American Indians and 130 East Indians were examined for the presence of discrete cranial traits. Wormian bones were found to occur with greatest frequency in both populations along the lambdoidal suture. Mylohyoid bridges of various shapes were seen in 74.9% of the American Indian population, higher than previously reported, and 17.5% of the East Indian population.

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EFFECT OF CRUDE WHEAT BRAN ON GLUCOSE ABSORPTION AND D-XYLOSE ABSORPTION IN TYPE I DIABETIC SUBJECTS. *R Sheikh, MD, SZ Ahmed, M.D.*, Doncaster Royal Infirmary, Doncaster, United Kingdom and Department of Medicine, Medical College, Shrinagar, Kashmir.

The effect of crude wheat bran on glucose absorption and D-xylose absorption was studied in twenty-five type I diabetic patients (15 males, 10 females; age 12-25 years). A 50 gm oral glucose tolerance test and 5 gm oral D-xylose absorption test was done in all subjects. Both tests were repeated giving 10 gm of crude wheat bran biscuits along with glucose and D-xylose respectively. The blood glucose levels were reduced by a mean of 28.2mg% ($p < .005$) by adding bran to the glucose powder. Similarly the D-xylose excretion showed a significant reduction by a mean of 0.9 gms ($p < .001$). These findings show that bran improves glucose tolerance and reduces D-xylose absorption in type-I diabetic subjects. Since type-I diabetics have minimal insulin secretion in response to a glucose meal, it is suggested by this study that bran interferes with absorption of glucose rather than raising insulin levels.

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Not received on time for publication

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SOCIETY, SEX, AND SPIRIT. *M Aia, FRCPE*, Department of Medicine, Baylor College of Medicine, Houston, Texas.

Graduates generally are 25 ± 2 years old when they finish their formal education. Biologically, they become men and women at the age of 12 ± 2 years. Thus, Muslim youth continue to be exposed to Western style of education 12 years after their puberty and have to observe behaviours and standards which are at great variance with prevalent "norms" that surround them. Such conflicts of the societies they keep, the peer pressures, especially of the sexual behaviour and demands of their own physique need to be addressed by the parents, Muslim scholars, teachers and all of us. The role of spiritual "Islamic" principles need to be evaluated and implemented in the light of current needs of protracted education. The problem is complex, the challenges are tremendous and temptations to deviate from "Sharīah" are too great. Unless such topics are openly discussed in societies like I.M.A., we will continue to shirk the real challenge that faces us as parents and physicians.

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THE CONCEPT OF "AL-SAMĀ' ". *MA Cheema, MD*, Department of Surgery, Elm Grove, Wisconsin.

The word "al-Samā' " as it appears in the Qur'ān has been translated as "the sky" as well as "the heaven" by different translators or by the same translator at different places. It appears as "al-Samā' " in its singular form 120 times, and in its plural form "Samāwāt" or "as-Samāwāt" 190 times. Modern science is still unable to clearly explain the vast blue canopy perceived by an average person. A study of the Holy Book does give this author a perception that will be described. The plurality as understood by the author will also be described. The true nature of al-Samā', however, is known only to Allāh, Subḥānahu wa Ta'ālā (SWT).

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Not received on time for publication

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HEALTH SERVICES IN THE OCCUPIED TERRITORIES. *AA Jaljuli, MD*, Jordan University, Amman, Jordan.

Since the occupation of the West Bank and the Gaza Strip by the Israeli forces in 1967, the health services in the occupied territories have progressively deteriorated as a result of the inhumane policies of the Israelis, thus allowing for the spread of disease and epidemics. As the uprising (*Intifāḍah*) of the Palestinian people under occupation is continuing through its third year, the suffering of the populace has multiplied. Their health care needs became more urgent and specific, obviously as a result of the confrontation between the unarmed people and the occupying forces which are armed to the hilt. This paper will be a study of the health services available in the occupied territories and the needs of the people there. It will also show the obstacles that are put by the Israeli authorities against improving the medical care.

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Not received on time for publication

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PACING TRENDS FOR THE NINETIES. *AH Hakkı, MD, FRCS (C), H McNeel, MD, J Hernandez, MD*, Bayfront Medical Center, St. Petersburg, FL.

This paper reviews the growing trends in the use of dual chamber pacemakers with particular emphasis on the utilization of responsive pacemakers in clinical situations where optimal hemodynamic benefit is to be attained.

Between July 1988 and January 1990 fifty-three patients underwent permanent pacemaker implantation. Their age varied from 53 to 96 years (mean age 75). Thirty-nine out of fifty-three implants were dual chamber pacemakers (73.6%). Eight out of the thirty-nine (20.5%) dual chamber pacemakers and one out of the fourteen (7.1%) single chamber pacemakers were rate responsive.

During the period between October 1989 and January 1990, eighteen permanent pacemakers were inserted. Sixteen (88.9%) of which were dual chamber, eight (44.4%) were rate responsive dual chamber, and only 2 (11.1%) were single chamber pacemakers. The clinical benefits related to rate responsiveness during exercise and sleep was appreciated. Rate responsive dual chamber pacemakers provide a clinical advantage when compared to other modes of cardiac pacing.

PERCUTANEOUS ENDOSCOPIC GASTROSTOMY: REVIEW OF 43 CASES. *AM Muslim, MD, St. Luke's Hospital, Newburgh, NY.*

Percutaneous Endoscopic Gastrostomy (PEG) is a new non-operative technique for placement of a gastrostomy tube. The procedure is simple, safe and rapid and is particularly useful in high risk patients because general anesthesia is not required. I have carried out this procedure in 43 patients in the last two years. There has been no mortality. Morbidity has been limited to a skin irritation in three patients, accidental dropping out of the gastrostomy tube in three patients in the early stages of the study, gastrocolic fistula in one patient, and necrotizing ascitis requiring incision and drainage in one. PEG has been a useful relatively simple approach in sustaining nutrition in patients unable to swallow because of neurologic disorders or malignancies in the head, neck and/or upper gastrointestinal tract. Percutaneous endoscopic gastrostomy should become the method of choice for creation of a feeding gastrostomy.

EXCISION OF ATRIAL MYXOMA UTILIZING THE BIATRIAL APPROACH. *SS Kabbani, MD, FACS, FACC, R Meade, Damascus Cardiovascular Surgery Center, Damascus University, Damascus, Syria.*

Between October 1978 and October 1989 eleven patients with atrial myxoma were operated on at Damascus University using the bilateral approach introduced by the author in 1973. The male to female ratio was 5/6. Age ranged between 14 to 60 years, with a mean of 33.9 years. Eight patients presented with left ventricular obstruction, one with right atrio-ventricular obstruction, one with a cerebrovascular accident, and one with recurrent embolization to the lower extremities.

Diagnosis was established in all patients by echocardiography and cardiac catheterization. Ten patients had left atrial myxomas (two with mitral regurgitation) and one had a right atrial myxoma extending into the left atrium.

The operative findings established that the tumor arose from the atrial septum in all but one patient, in whom it originated from the posterior left atrial wall.

All patients were cured from their disease and complete follow-up has revealed no recurrence.

MYCOBACTERIAL INFECTION IN AIDS PATIENTS. *AK Haque, MD, H Thompson, MD, WT Cowan, MD and J Saad, MD*, University of Texas Medical Branch, Galveston, TX.

We studied the incidence of mycobacterial infection in 90 AIDS patients autopsied at UTMB during 1984 to 1988. Sixteen patients had documented antemortem or postmortem infection, 13 men and 3 women aged 26 to 60 years with a mean of 37.6 years. Risk factors included homosexuality in 9, drug abuse in 7, hemodialysis in 1, and no known risk factors in 2 patients. Four patients had a history of positive PPD; 3 were treated with anti-tuberculous drugs. At autopsy 12 patients had acid fast bacilli (AFB) in the lungs and 11 in the abdomen, mainly in the mesenteric lymph nodes, intestines, liver and spleen. Nine patients had a concomitant lung and abdominal infection. Three patients with MAC infection had no AFB in the lungs but 3+ to 4+ AFB in the abdomen. Eleven of the 12 patients who presented with diarrhea had AFB in the abdominal organs at autopsy. The abdominal infection was suspected antemortem in only 1 of the 11 patients. Two patients had abdominal mycobacterial infection but no symptoms. Based on this small series, we suggest that some AIDS patients may have a significant abdominal mycobacterial infection with absent or minimal pulmonary infection. Ingestion via the oral route may be an important source of infection, especially with the atypical mycobacteria.

DIAGNOSIS OF HERPES ZOSTER ENCEPHALITIS. *WD Ahmad, M.D.* Department of Neurology, VA Hospital, Fayetteville, NC.

A case of Herpes Zoster-associated Encephalitis is presented. Diagnosis of this condition is discussed, specifically, the pitfalls in the diagnosis. Other central nervous system complications of Herpes Zoster are enumerated and relevant points discussed. The use of Acyclovir in the treatment of Herpes Zoster in general, and in that of Herpes Zoster-associated Encephalitis in particular, will be briefly discussed.

ECTOPIC PREGNANCY TREATMENT BY OPERATIVE LAPAROSCOPY. *JA Foyez, MD*, Department of Obstetrics and Gynecology, Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, NC.

Twenty-six patients were diagnosed as having tubal pregnancies and all were treated by operative laparoscopy. Eighteen were diagnosed from the first visit while eight were diagnosed between 3-7 days after their first visit for suspicion of ectopic pregnancy. None of these were ruptured at the time of surgery. Sixteen were ampullary, six were isthmic, and four were fimbrial. All were treated as outpatients. It is concluded that ectopic pregnancy can easily be diagnosed before it ruptures and can be treated without laparotomy.

THE ROLE OF PROSTATE SPECIFIC ANTIGEN IN THE EARLY DETECTION OF PROSTATIC CANCER. *R Bhatti, MD, K Mallick, MD, R Ray, MD*, Division of Urology, Cook County Hospital and University of Illinois College of Medicine, Chicago, IL.

Prostate cancer (PCa) still remains one of the leading causes of death in men in the United States. Asymptomatic nature and limited knowledge of its etiology makes it difficult to diagnose this malignancy in its early stages. As a result, the majority of the cases are already in advanced stage when first detected. We evaluated the diagnostic potential of Prostatic Specific Antigen (PSA) in more than 100 patients with confirmed histological diagnosis of PCa and more than 100 control subjects including patients with Benign Prostatic Hyper trophy (BPH) and age matched controls. Prostatic acid phosphatase (PAP) was also measured in these subjects. Our results show that PSA had a much higher degree of sensitivity than PAP and was able to distinguish patients according to the stage of their disease and grade of their tumor. However, the specificity of PSA was limited when it came to identifying patients with BPH thus limiting its screening potential.

FREQUENCY DISTRIBUTION OF INTESTINAL PARASITES IN IRAQ WITH SPECIAL EMPHASIS OF BLASTOCYSTIS HOMINIS. *NK Mahdi, MSc, PhD*, Department of Microbiology, College of Medicine, University of Basrah, Basrah, Iraq.

Four hundred sixty three stool samples were examined for the presence of intestinal parasites including *Blastocystis hominis* by direct smear method. Examination for the presence of nine different parasites in patients attending the Medical Consultation Center in southern Iraq was performed. Two hundred fifty one (54.2%) of the samples were positive for ova, larvae, trophozoite or cysts of various parasites; of which *B. hominis* was recovered in 44.1% samples. Of the total 251 positive cases, 96.4% were positive for protozoa and the frequency of *B. hominis* was 69.9%. Mixed infections of *B. hominis* and *Entamoeba histolytica* was highly prevalent (16.7%). The prevalence rate was not found to be sex dependent. The highest frequency rate for *B. hominis* was in the age group 31-40 years. The most common clinical symptoms associated with *B. hominis* infection were recurrent diarrhea, abdominal pain and cramps. Morphologically, *B. hominis* appears as a spheroidal organism with a size of 8-20. Its cytoplasm is compressed at the periphery by a large central vacuole and provided with 3-4 nuclei.

THE ROLE OF ARABIC LITERATURE IN THE STRUGGLE AGAINST THE CRUSADERS IN PALESTINE. *MA Ibrahim, PhD*, Arabic Department, University of Jordan, Amman, Jordan.

In this presentation, the following will be discussed:

- a) The danger of the Crusaders on the Islamic faith and civilization, as well as on the land of Palestine and its inhabitants.
- b) The role of the foresaid literature in arousing Muslims everywhere to unite and throw out the invaders.
- c) The propagandistic nature of that literature.
- d) The "Merits Books" compiled in that period to assert the religious assets of occupied Palestinian towns, or the towns under the threat of occupation.

ROLE OF IMMUNOGENETICS IN THE PATHOGENESIS OF AUTOIMMUNITY: A MODEL PROVIDED BY THE STUDY OF PEMPHIGUS VULGARIS. *AR Ahmed, MD, DSc, CA Alper, MD, and EJ Yunis, MD*, The Center for Blood Research, Dana-Faber Cancer Institute, Harvard School of Dental Medicine, Harvard Medical School, and American Red Cross Blood Services, Northwest Region, Dedham, MA.

Pemphigus vulgaris (PV) is a potentially fatal blistering autoimmune disease of the skin and mucous membranes. The disease has been reported to be more common among Jews than non-Jews. We studied 25 Jewish and 23 non-Jewish patients and their families for major histocompatibility complex (MHC) markers, including HLA-A, B, C, DR, complotype and restriction fragment length polymorphism (RFLP) in HLA-DQB and DRB region. Twenty-three of 25 Jewish patients had one of two extended haplotypes: [HLA-B38, SC21, DR4, DQw3] or [HLA-B35, SC31, DR4, DQw3] (combined haplotype frequency of .34 in patients compared with .15 in normal Jews) or their D-region fragments (.20 vs .06). RFLP analysis indicated that in all the patients the DQw3 was of the DQw8 subtype. In 23 non-Jewish patients, HLA-DR4 (but rarely the complete Jewish extended haplotypes) was found in .24 compared with .15 in control haplotypes, and [HLA-B55, SB45, DRw1] in .13 and DRw6 alone in .20, compared with .006 and .11 among normal non-Jewish haplotypes. All the DRw6 patient haplotypes were DRw14 by RFLP using DRB probe and TaqI digestion. RFLP analysis indicated that all patients with DQw1 were of the DQw5 subtype. Over one third of non-Jewish patients and all who carried [HLA-B55, SB45, DRw6] were of Italian ancestry. These findings suggest that either of two HLA-D region susceptibility genes account for most PV in Caucasians. The first, perhaps more ancient, arose in an ancestor of the Jews on an extended haplotype [HLA-B35/38, SC31/SC21, DR4, DQw8] and spread to non-Jews. The second gene perhaps arose in Italy on [HLA-B55, SB45, DRw6, DQw5]. Thus pemphigus provides a good model in which the role of the genes MHC and their products play an important role in pathogenesis. Disease susceptibility may result from an interaction between one of these MHC genes, other gene(s), and environmental factor(s).

TRANSESOPHAGEAL ECHOCARDIOGRAPHY. *M Moten, MD*, Veterans Administration Medical Center, Allen Park, MI.

Two dimensional echocardiography has been expanded to encompass various semi-invasive applications including transesophageal echocardiography. This provides a new acoustic window to evaluate the heart and the proximal section of the major vessels. The clinical indications for transesophageal echocardiography include evaluation of the aortic root for aortic dissection, location of prosthetic mitral valve dysfunction, intracardiac sources of emboli, endocarditis, cardiac and pericardiac masses, interatrial septum quantification of mitral regurgitation, perioperative assessment of left ventricular function, and the intra operative evaluation of prosthetic valves. The absence of a transthoracic window secondary to bandages, broken ribs, cutaneous emphysema or monitoring devices is also an indication.

The transesophageal probe is a conventional endoscope fitted with a small side viewing phased array transducer at the tip that can be flexed and moved laterally. It is about 100 cm in length and 1 cm in diameter (13mm for the tip) and is introduced orally through a mouth piece to prevent accidental injury to the probe. The patient has usually fasted for 6 hours and is then given topical anesthesia and a drying agent to reduce salivary secretion, plus IV tranquilizers and antibiotics for endocarditis prophylaxis if clinically indicated.

The procedure usually takes 15-20 minutes for an outpatient but the probe may safely be left inside for hours if it is being used for continuous or frequent hemodynamic monitoring, the evaluation of LV function or intraoperative prosthetic valve evaluation. The views that are commonly obtained include a short axis view at the level of the aortic valve, 4 chambers, 5 chambers and apical long axis view of the heart through the esophagus and short axis view of the left ventricle through the gastrium. Color flow imaging and pulsed wave Doppler examination are performed and measurements of cardiac output is done as needed during surgery.

The complications associated with the procedure if performed properly are virtually non-existent. It has been used in almost every clinical setting and appears as safe as a standard endoscopic examination. The major complication is esophageal perforation which is described as being 0.02% with esophagoscopy. It is therefore, not recommended for patients with a history of esophageal disease.

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STUDIES ON THE MECHANISM OF BACTERIAL CORNEAL INFECTION. *N Panjwani, PhD and J Bauni, MD*, Department of Ophthalmology, Tufts University School of Medicine, Boston, MA.

Pseudomonas aeruginosa is one of the most common pathogens associated with bacterial corneal ulcers and is the major cause of corneal infection in wearers of extended wear contact lenses. Furthermore, the rapidity of corneal degradation and risk of perforation occurring 24-28 hours following the onset of infection, makes *P. aeruginosa* keratitis one of the most dangerous of all corneal infections.

The adherence of bacteria to the host tissue generally is recognized as the important first step in the pathogenesis of corneal infections. The mechanisms by which *P. aeruginosa* adhere to the cornea and cause infection have not been fully defined. The present study was undertaken to contribute to our understanding of the mechanism of corneal infection. In this study, we demonstrated that *P. aeruginosa* bind to five of the ten neutral glycolipids of corneal epithelium. These data lead us to speculate that corneal epithelial cell surface glycolipids act as bacterial receptors and play a role in the pathogenesis of corneal infection. Studies are currently being performed to determine whether sugar analogues of the glycolipid receptors can be used to inhibit the binding of *P. aeruginosa* to the corneal epithelium.

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PALESTINIAN INTIFĀDAH: CAUSE, EFFECT AND FUTURE, *MN Sakr, PhD*, Department of Economics, Jordan University, Amman, Jordan.

In this presentation, the following points will be discussed:

- The establishment of Israel: Zionism and big power strategy towards Islam
- Israeli Occupation Policies: Economic, social, political, land use, water resources, etc.
- Palestinian Social Forces behind Intifadah
- The impact of the Intifadah upon the Palestinians, the Jews, Israel, Arabs, Muslims, and the International community
- The Intifadah vis-a-vis big power strategy in the region
- The Intifadah's future development: Peace or military confrontation

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Not received on time for publication

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Not received on time for publication

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Not received on time for publication

MASKED DEPRESSION: CULTURAL ASPECTS. *W Haque, MD*, Department of Psychiatry, University of Texas Medical Branch, Galveston, TX.

Depression is not only the most common illness seen in the practice of psychiatry, but is also one of the most common illnesses seen in the general practice of medicine. Unfortunately, however, the diagnosis is often missed because of the lack of appreciation of the various symptoms of depression by both the general public and professionals. This is particularly unfortunate, since today depression is essentially a treatable illness. One of the common causes of missed diagnosis is that a certain number of patients with depression present in an unusual or atypical fashion. This group has been referred to as "masked depression", "depression without depression" or "depressive equivalent". Some possible causes of this usual presentation are discussed and how not to miss these patients. An informal clinical study is reported, which points to certain social-cultural factors which may be important in such presentations. The patients from a cultural and linguistic minority group living in a larger and dominant culture may be more vulnerable to the "masking" of depression and thus to misdiagnosis and mistreatment.

PSYCHOSOMATIC DISORDERS: A MUSLIM PERSPECTIVE. *SH Almashoor, MD*, Department of Psychiatry, Universiti Kebangsaan, Kuala Lumpur, Malaysia.

Psychosomatic disorders reflect the interrelationship between the biological, psychological and social variables in the development of diseases. Its concept has undergone changes, its recognition by the WHO and its inclusion in the 9th ICD has widespread implications. The attempts to provide a comprehensive medical approach to the management of diseases illustrated the importance of this concept of medicine. It is quite important to understand the mechanism of such illness in order to provide the needs of those who require them. Islam has a lot to offer in this aspect of medicine where faith, steadfastness and obedience to the concept of the Islamic religion can influence the progress of the disease. The Qur'an and the Hadith are the vital sources of knowledge which can enhance the patient's and the physician's positive attitudes toward disease. These significant issues will be discussed in the context of medicine and the Islamic belief.

RADIONUCLIDE CEREBRAL PERFUSION IMAGING. *A Ali, MD*, Department of Diagnostic Radiology and Nuclear Medicine, Rush Medical College, Chicago, IL.

Recent advances in radiopharmaceutical and single photon emission computed tomographic (SPECT) technology have provided a relatively inexpensive and noninvasive method of "functional" brain imaging. Several single photon emitting radiopharmaceuticals are now available which when injected intravenously, cross the normal blood-brain barrier and localize within the brain in proportion to regional cerebral blood flow and brain metabolism. The SPECT brain studies can provide helpful information in the evaluation and management of patients with cerebrovascular diseases, dementia, epilepsy and psychiatric diseases. SPECT brain imaging has been shown to complement rather than compete with the widely available and routinely used anatomic brain imaging modalities of computerized axial tomography (CT) and magnetic resonance imaging (MRI).

In cerebrovascular diseases, SPECT brain imaging can identify functional changes associated with ischemia immediately after the onset of a cerebrovascular accident. In the first two days of acute cerebral infarction (when CT scans are usually negative) SPECT imaging can confirm the clinical diagnosis. In the acute period of stroke, CT and SPECT findings are helpful in distinguishing infarcted cerebral tissue from ischemic (i.e., viable) cerebral tissue. In patients with carotid artery stenosis, a positive SPECT study is very helpful in evaluating the hemodynamic significance of the lesion.

Fairly typical changes have been noted in cerebral perfusion and brain metabolism of patients with Alzheimer's disease and multi-infarct dementia. These diseases can be differentiated from other causes of dementia by SPECT brain imaging.

SPECT studies have shown encouraging results in the evaluation and follow up of patients with schizophrenia, affective disorders, head trauma and epilepsy.

CHEMICAL SYNTHESIS, IMMUNOLOGICAL AND PHYSICO-CHEMICAL STUDIES OF IMMUNODOMINANT PEPTIDES OF RING INFECTED ERYTHROCYTE SURFACE ANTIGEN (RESA) OF PLASMODIUM FALCIPARUM. *KJ Manzar, MD, DM Rao, MD*, Department of Biochemistry, AIIS, New Delhi-110029, India.

RESA is expressed on the RBC membrane infected by *P. falciparum*. This antigen consists of these repeating amino acid sequences: Asp.Asp.Glu.His.Val.Glu.Glu.Pro.Thr.Val.Ala. (DDEHVEEPTVA).Glu. Glu.Asn.Val.Glu.His.Asp.Ala. (EENVEHDA) and 2x (Glu.Glu.Asn.Val.) (EENV)₂. These peptides were synthesized by Merrifield solid phase methodology. They were purified by using different chromatographic techniques and HPLC. Amino acid analysis was also done. By using Chow Fasman Algorithmic Scale, these peptides were found to be hydrophilic molecules suggesting them to be B-cell epitopes. Immunoreactivity of the peptides was checked by ELISA. On CD-spectra, the peptides were found to have random structure. These 3 peptides as well as another peptide 4x (Asn.Ala.Asn.Pro.) (NANP)₄ which is a sequence from circumsporozoite protein of *P. falciparum* were used for the detection of malaria specific antibodies in human sera by ELISA. The results showed higher percentage positivity as well as the antibody titre in the endemic sera against (NANP)₄ and (EENV)₂ followed by EENVEHDA and DDEHVEEPTVA, therefore (NANP)₄ and (EENV)₂ are more immunogenic epitopes. There was also an age dependent relationship with the antibody profile. (NANP)₄ and (EENV)₂ can be envisaged as potential immunoprophylactic agents.

CIPROFLOXACIN AND OFLOXACIN IN THE TREATMENT OF SERIOUS PNEUMONIA IN THE ELDERLY. *T Mir, MD, A Sultan, MD, J Mir, MD, R Basir, MD, F Khun, MD*, Department of Medicine, Nassau County Medical Center, East Meadow, NY.

From 1/88 to 7/89 we prospectively evaluated the safety and efficacy of two new quinolones, Ciprofloxacin (Cipro) and Ofloxacin (Ofi), in the treatment of hospitalized elderly patients with pneumonia. Of the 69 patients, there were 51 females and 18 males, with an age range of 65-94 years (mean age 81 years). The 4 common pathogens were *P. aeruginosa* (19), *S. pneumoniae* (15), Enterobacteria (9), *S. aureus* (8). All isolates were sensitive in vitro. Cipro was given IV 200 mg, then PO Cipro 500 mgm Q 12 hrs (mean 5.8 days). Ofi was given IV 400 mg, Q 12 hrs (mean 7.3 days) followed by PO Ofi 400 mg, Q 12 hrs (mean 1.8 dys).

	CULTURE POSITIVE	I*	GNB**	GPC***	SUCCESS/ FAILURE	INDET
Cipro 39	29	54	42	12	28/6	5
Ofi 30	23	43	22	21	20/8	2

*Isolates **Gram (-) Bacteria ***Gram (+) Cocci

Conclusion: 1) In the elderly, quinolones are useful due to convenience of BID dosage, sequential IV/PO availability, good safety and efficacy. 2) Both quinolones show good in vitro activity. 3) Clinical results are comparable to the results obtained with conventional therapy. (Pasterson PK et al, *Am J Med* 85:164-71, 1988.) 4) All 15/69 patients with *S. pneumoniae* as the only isolate were cured. 5) Quinolones are cost effective. Early use of oral Cipro in the 39 patients resulted in estimated savings of approximately \$6,000.

ENDOVASCULAR SURGERY: A NEW DIMENSION IN VASCULAR SURGERY. *HF Nagamia, MD*, Department of Cardiovascular Surgery, Tampa General Hospital, Tampa, FL and Humana Hospital, Brandon, FL.

A new era of vascular intervention was ushered in 1964 when Dotter described a series of percutaneous balloon dilations of stenotic lesions of the superficial femoral artery, which he termed as "percutaneous transluminal cryoplasty" (PTA). It was, however, left to Gruntzig in 1974 to popularize this new technique for use in coronary angioplasty (PTCA), now commonplace. Since then rapid advances are taking place in this new and evolving field of Endo-Vascular Surgery.

Endovascular surgery may be defined as vascular surgery undertaken to alleviate lesions in the vascular system at a site quite remote from the site of the lesion itself. The newer techniques that are now supplementing the original technique may be classified as follows:

1. Laser assisted balloon angioplasty (LABA)
2. Transluminal atherectomy (TATH)
3. Transluminal angioscopy (TANGIO)
4. Transluminal intravascular stenting (TRINSTENT)

In this paper, each of these new modalities will be examined and illustrative cases of each will be presented.

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Not received on time for publication

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THE ROLE OF QUINOLONES IN URINARY TRACT INFECTION. *YJ Drabu, MD*, North Middlesex Hospital, London.

In domiciliary practice in the United Kingdom between 12 and 80 consultations per 1000 are for symptoms suggestive of infections of the urinary tract. Cystitis is the commonest cause of illness in women and after age 70 the incidence of UTI in men approaches that in women. Successful management of cystitis/UTI will depend on the correct diagnosis and correct choice of an appropriate anti-microbial agent. Clinical history, examination (including examination of urine by microscopy and culture) should precede treatment. In general practice, the choice of antibiotics is often made and treatment commenced on a 'best guess' principle. If this principle is to be applied rationally, knowledge of the probable infecting organism and its likely susceptibility is essential. Organisms causing urinary tract infections vary from place to place, from time to time, and so do their sensitivities to antibiotics. Therefore, it is important to collect ecological information of the organism causing urinary tract infections and their antibiotic sensitivity pattern. In hospital practice, urinary tract infection (bacterial) is directly related to catheterization causing hospital acquired infections. In hospitals, investigation and parenteral therapy is more feasible than in general practice, but the choice of treatment should again be dependent on ecological information of the causative organisms. These aspects will be discussed further in relation to the new quinolones.

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QUINOLONES IN GASTROINTESTINAL INFECTIONS. *F Moosdeen, MD*, Department of Medical Microbiology, Universiti Kebangsaan, Kuala Lumpur, Malaysia.

The etiological causes of gastrointestinal infections vary with geographical location. In developing countries, the more common bacterial causes include *E. coli* (mostly enterotoxigenic), *Shigella* spp., *Salmonella* spp., and *Campylobacter* spp. The Flouroquinolones are highly active against these organisms, except that *Campylobacter* is only moderately susceptible. Together with their high drug levels in feces, these agents would be efficacious in the treatment of bacterial diarrheal diseases, especially in the areas where there is a predominance of multiple antibiotic resistant strains. Norfloxacin, ofloxacin and ciprofloxacin have been successfully used to treat shigellosis, salmonellosis and traveller's diarrhea. The fluoroquinolones have also been successfully used to treat typhoid fever and eliminate the *Salmonella* carrier state. The gastrointestinal flora is only partially affected, with no colonization by other organism. Resistant strains have not been selected.

CIPROFLOXACIN IN THE TREATMENT OF BACTERIAL LOWER RESPIRATORY TRACT INFECTIONS (LRTI). *F Khan, MD*, Department of Medicine, Nassau County Medical Center, State University of New York at Stony Brook, East Meadow, NY.

Since 1984 I have evaluated different Ciprofloxacin (CIP) oral dosage regimens (750mg bid, 500mg bid, 250mg bid) and different comparative drugs (Ampicillin, Augmentin) in over 400 patients with various types of LRTI. Predominant organisms isolated include: Hemophilus species, P. Aeruginosa, Serratia marcescens, E. coli, K pneumoniae, other gram-negatives, S. aureus, S. pneumoniae, Branhamella catarrhalis. Over 97% of all strains showed in vitro sensitivity to CIP. Clinical effectiveness of CIP irrespective of organism isolated was over 95%, and bacterial eradication rate was also over 95%. Based on this experience my conclusions are: 1) CIP is a highly effective therapy for LRTI. 2) CIP showed broad in-vitro activity against both gram-negative and gram-positive bacteria. 3) Over 95% of bacterial isolates showed in vitro sensitivity to CIP. 4) Elderly female patients receiving more than one gram/day of CIP and theophylline may experience an increase in blood theophylline level (*Am J Med* 1987; 82:115). My recommendations for use of CIP in LRTI are: 1) For community-acquired LRTI in a compromised host such as a patient with COPD, alcoholism, diabetes or is elderly, CIP is a suitable agent in oral dosage of 250mg twice a day in mild cases and 500mg twice a day in others. 2) For nosocomial gram-negative LRTI, CIP is useful for Pseudomonas, Enterobacter, Serratia, and is an excellent oral follow-up agent. 3) For cystic fibrosis bacterial exacerbations, CIP is an excellent choice and should be alternated with other agents. 4) For a healthy host with LRTI, other agents such as penicillin, erythromycin are preferred. 5) CIP is not indicated for aspiration pneumonia. Word of Caution: CIP may increase serum theophylline and caffeine levels while antacids reduce CIP absorption.

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OPERATIVE LAPAROSCOPY IN THE TREATMENT OF ENDOMETRIOSIS. *JA Fuyez, MD*, Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, NC.

This is a retrospective study designed to compare the results of treatment of moderate and severe stages of endometriosis by laparotomy and by operative laparoscopy. The patients were divided into three groups: the first consisted of 42 patients treated by laparotomy followed immediately with Danazol treatment for 6-9 months; the second consisted of 44 patients treated by operative laparoscopy followed immediately with Danazol treatment for 4-6 months, and the third consisted of 62 patients treated by operative laparoscopy followed immediately with Danazol treatment for 6-10 weeks. The cumulative pregnancy rate in the laparoscopy groups was better than of that of the laparotomy group. Most patients who failed to conceive underwent a second-look laparoscopy for re-evaluation. Residual endometriosis and associated adhesions were noticed least in the third group. It is concluded that operative laparoscopy could be efficiently used for the treatment of moderate or severe endometriosis.

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HYPERTENSION IN THE UNITED STATES - CURRENT STRATEGIES. *KJ Qazi, MD, FACP*, Department of Medicine, Sister's of Charity Hospital, Buffalo, NY.

Of the approximately 60 million Americans with hypertension, the vast majority (well over 90%) have essential hypertension. Almost half of these are unaware of their hypertension primarily because of the asymptomatic nature of the disease. The majority have mild hypertension with a diastolic pressure of 90 to 104 mm Hg. This can generally be controlled with simple therapies.

The National High Blood Pressure Education Program that was initiated in the early 1970's has markedly increased the awareness of the need to identify and treat hypertension. A significant reduction in the cardiovascular mortality has been seen over the last 30 years. This may partially be explained by the increased awareness and the benefits achieved from this education program. The fourth recommendation from the Joint National Committee on Detection, Evaluation and Treatment published just over a year ago stresses the individualization of the hypertensive treatment for various hypertensive patients. With more than 50 effective anti-hypertensive drugs available, finding the optimal regimen for every individual patient can be a challenge. However, with the addition of converting enzyme inhibitors and calcium antagonists to the other conventional anti-hypertensive treatments, a physician is equipped to deal effectively with almost all forms of hypertension.

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TUMOR'S METASTATIC POTENTIAL COULD INFLUENCE HOST'S ANTI TUMOR RESPONSES. *R Bhatti, MD, K. Mallick, MD, and P Ray, MD*, Division of Urology, Cook County Hospital and University of Illinois College of Medicine, Chicago, IL.

The metastatic potential of a tumor can influence host's immunological attempts of rejecting tumor. We evaluated the effect of such influence in a prostatic tumor model. Circulating antigen/antibody complexes (AAC) reflecting host's humoral immunity were measured in Copenhagen x Fisher rats bearing three different sublines of R-3327 adenocarcinoma of the prostate. Our data show significantly high levels of AAC in rats bearing fast growing androgen insensitive metastatic subline as compared to two slow growing hormone sensitive non-metastatic sublines. AAC levels were higher in rats with smaller tumors as compared to those with a larger tumor burden. AAC levels were also shown to have an inhibitory effect on the host's cell mediated anti-tumor responses, thus suggesting that AAC may have a meaningful influence on tumor/host relationship.