Abstracts To Be Presented

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MEDICAL EDUCATION IN ISLAMIC MEDICINE. A.M. Dajani, M.D., Faculty of Medicine, Jordan University, Amman, Jordan.

The practice of medicine was considered a noble profession by the Moslems. Before being allowed to practice one should have acquired a wide experience in medicine and should have been well trained and disciplined. Students were asked to be in close contact with patients in order to apply the theory they had learnt by attending hospital rounds and seminars. Medical teaching had passed through different stages, starting by the Mosque and ending by medical schools which became the nuclei universities which had a great influence on the newly formed universities in Europe. Great libraries were attached to those schools. Well furnished and equipped hostels were built and attached to the centers of learning. These residential quarters for students were built for the first time in history. Practice was governed by certain legisltation and students had to sit for examinations before being licensed. A code of professional ethics was also introduced to regulate practice.

2

THE ISLAMIC VIEW OF MEDICINE. D.S. Sheriff, Department of Biochemistry, Al Arab Medical University, Benghazi, Libya.

The emergence of sub specialties and the advancement of many technology based health care systems has given greater prominence to medical ethics. Medical ethics is considered to be a study of right conduct, of rational processes for determining the best course of action in the face of conflicting choices. It leads to sets of guidelines that, if followed, may lead to correct behavior in the face of difficult choices. In simpler terms, medical ethics becomes the study of ideal conduct of health care professionals. All medical decisions involve an ethical component in addition to the scientific and clinical aspects of the problems. A moral sensitivity also plays a vital role in such medical actions. Such moral sensitivity usually stems from the moral roots of a society. Islam's rich moral roots help Medicine to serve humans better.

3

EDUCATION IN UNANI MEDICINE THROUGH THE MARCH OF TIME. A. Razzack, Department of Education, University of Delhi, Delhi, India.

Formal education in the Unani System of Medicine is now prevalent in the Indian sub-continent. India has the distinction of having postgraduate education in Unani Medicine at the Aligarh Muslim University, Aligarh and the Osmania University, Hyderabad. Education of Unani Medicine in India and Sri Lanka is controlled by the universities whereas in Pakistan and Bangladesh Statutory Bodies are responsible for maintaining standards. The existing curriculum of teaching in Unani Medicine, which includes pre-clinical subjects such as Anatomy, Physiology, basic principles and clinical subjects such as Medicine, Pathology, Preventive and Social Medicine, Pharmacology, Surgery, etc., is well defined. The university ensures that a candidate passing the final examination also undergoes compulsory internship in recognized hospitals. In this paper the history of medical education in the Unani System of Medicine is discussed in detail. What started with the teaching practices in the Hippocratic era at Cos has resulted in a cumulative fund of experience through the various schools of Ionia, Sicily, Athens, Alexandria, Rome, Jundi Shapur, Harran, Baghdad, Al-Azhar, Salerno, Toledo, etc. The present systematic education and training have all the ingredients which made a physician competent to successfully practice the healing art.

4

EFFECTS OF FASTING DURING RAMAḌĀN. N. Soliman, M.D., University Hospital, Amman, Jordan.

During the month of Ramaḍān 1404 AH (June-July, 1984 AD) healthy Muslim volunteers; 42 males and 26 females, ranging in age from 15-64 and 16-28 years respectively were studied. They were weighed and their blood levels of cortisol, testosterone, Na, K, urea, glucose, total cholesterol, high density lipoprotein (HDL), low density lipoprotein (LDL), triglycerides (TG) and serum osmolality were measured at the beginning and at the end of Ramaḍān. There was significant loss of weight in males from a mean of 73.8 $\pm$ 6.2 kg to 72.0 $\pm$ 7.1 Kg ($P < 0.01$) and in females from 55.2 $\pm$ 4.8 to 54.6 $\pm$ 4.2 Kg ($P < 0.05$). Blood glucose levels rose in males from 77.7 $\pm$ 23.6 mg/dl to 90.2 $\pm$ 31.2 mg/dl ($P < 0.05$) and in females from 76.0 $\pm$ 7.6 mg/dl to 84.5 $\pm$ 11.1 mg/dl ($P < 0.002$). All other parameters did not show significant changes. The rise in glucose showed a slight, but significant, negative correlation with the initial TG level. We conclude from the data presented that fasting Ramaḍān does not incur any metabolic changes in healthy individuals. However, weight loss and the rise in glucose with its negative correlation with the initial TG level warrant attention by physicians practicing in Muslim coummunities.

5

A REDUCTION IN THE INCIDENCE OF SEXUALLY TRANSMITTED DISEASES (STD) IN IRAN. N. Simforoosh, MD, Shahid Labbafi Nejad Medical Center, Shahid Beheshti University of Medical Sciences, Teheran, Iran.

A statistical study was conducted to observe the incidence of syphilis and gonorrhea in Iran. The period of study included three years before and after the Islamic Revolution. The number of gonorrhea cases diagnosed in the three years before (1973-1975) was 7,639 while there were only 1,124 cases diagnosed during the three years after (1980-1982). For syphilis, a sharp decline was noted in the positivitiy of RPR test in specimens of donated blood examined in Iranian Transfusion Organization; 6.83 per thousand before and 3.2 per thousand after the Islamic Revolution. At present, STD and AIDS are serious health problems in many countries. Based on our findings in Iran we will offer effective, less costly and practical means of controlling sexually transmitted diseases.

6

LEAD POISONING IN SCHOOL CHILDREN OF TEHERAN. A.S.G. Lotfi, M.D., E. Noormohamadi, M.D. and B. Farzami, M.D., Institute of Biophysic and Biochemistry (I.B.B.), University of Teheran & University of Tarbeiat Modarres, Teheran, Iran.

The aim of this research is to evaluate the lead concentration in Teheran's air (Pb-A); and in the blood and urine of primary school children aged nine years. Blood and urine lead levels (Pb-B), (Pb-U) are considered important parameters in lead poisoning. Lead is a suppressant of hemopoesis. The hemoglobin content in blood and G-6-PDH are affected by lead poisoning. All of the determinations was done by flame and graffit furnace atomic absorption spectrophotometer. Hemoglobin was calculated from the hematocrit level and G-6-PDH activity was measured by the method of sigma procedure (Sigma Kitts No. 400). The results of this study showed that with a $P \geq 95\%$ the pooled mean of Pb-A in Teheran city was 2.59 ± 0.588. According to the calculations there is a significant and positive correlation between Pb-A, and Pb-B ($r = 0.90$). Results concerning Pb-U were widely variable and were not in agreement with Pb-B in all cases although a relative and positive correlation was observed between Pb-B and Hb. ($r = 0.97$). It could be estimated that the effect of lead on G-6-PDH is dependent on physiological status and certain nutritional factors that effect lead absorption. The correlation between enzyme activity and Pb-B was not significant. We conclude therefore that the city of Teheran has a very high level of lead pollution which is higher than WHO standards for air, blood and urine lead levels.

7

CUTANEOUS FASCIOLIASIS. Yahya Dowlati, M.D., Ph.D., Dermatology Department, Chamran Hospital, Teheran, Iran.

A thirty-six year old white male had a migratory cutaneous nodule on his chest wall removed several times and diagnosed as angiolymphoid hyperplasia with eosinophilia but the lesion recurred after each excision. When we removed the lesion completely histopathological examination revealed an adult form of liver fluke (Faseiola Hepatica) in the skin. We have not found any similar case in dermatological text books or the literature available to us. We recommend to remove any migratory nodule large enough to include the body of a parasite and to do serial sections when eosinophilic microabscess is seen in such a lesion.

8

REVIEW OF BLOOD PRESSURE BEFORE AND AFTER RENAL TRANSPLANTATION IN 80 CASES. A COMPARISON BETWEEN AZOTHIOPRINE AND CYCLOSPORINE. Nasser Simforoosh, M.D., Behzad Amiransari, M.D. and Ali Taghizadeh, M.D., Shaid Labbafi Nejad Medical Center, Shahid Behesti University of Medical Sciences. Teheran, Iran.

From June 23, 1984 until March 9, 1987 there were 80 renal transplantations performed at our department. 46 patients were hypertensive before transplantation (57.5%). Following transplantation only 34 recipients were hypertensive (42.5%). Four of post transplant hypertensive cases were excluded from the study because of rejection. Of 30 remaining cases 44.7% of the recipients on Azothioprine were hypertensive while 36.1% on Cyclosporine were found to be hypertensive. Conclusion: Contrary to the experience of others, we find reduced incidence of post transplant hypertension in Cyclosporine treated group. We attribute this finding due to lower cyclosporine dose in our protocol (10 mg/kg starting dose, with maintainence dose of 3.5-4.5 mg/kg in the majority of the recipients.

9

BONE HISTOMORPHOMETRY STUDIES IN UREMIC PATIENTS UNDERGOING LONG-TERM HEMODIALYSIS. S.N. Asad, M.D., Department of Medicine, Nassau County Medical Center, East Meadow, New York.

Bone histomorphometry studies provide valuable information in the diagnosis of metabolic bone disease. Iliac crest bone biopsies were performed on 21 selected, long-term dialysis patients who developed clinical and radiological manifestations of uremic osteodystrophy despite treatment with calcitriol (1, 25 [OH] D_3) and Ca supplements. The bone histomorphometry was performed on the undecalcified bone sample using double tetracycline labels. The M to F sex ration for this group of patients was 1:1; the average age was 44 years (range 23-66 yrs). Outlined in the table, the results of this study are summarized.

	Diagnosis	Pts. (n)	Aluminum Staining +/-	Percentage Distribution %
Type I	Predominant HPTH*	2	1/1	9
Type II	Predominant Osteomalacia	7	5/2	33
Type III	Mixed Lesion	7	3/4	33
Type IV	Adynamic Bone Disease	4	4/0	19
	Normal Histology	1	0/1	4

Our data on bone biopsies in selected patients show predominant osteomalacia and mixed uremic lesions occur in a majority of dialysis patients (66%) despite adequate treatment with calcitriol and Ca supplements. Aluminum-induced oestomalacia was present in 19% of patients and positive aluminum staining was noted in 14/21 patients. Aluminum accumulation is a major etiologic factor in the pathogenesis of uremic osteomalacia. In conclusion our data indicate the usefulness of bone histomorphometry in establishing a correct diagnosis in managing renal osteodystrophy in general and aluminum-induced oestomalacia in particular. *HPTH = hyperparathyroid

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ACQUIRED CYSTIC KIDNEY DISEASE IN PATIENTS ON CHRONIC PERITONEAL DIALYSIS. S. Jaweed Ansari, M.D., Luan Truong, M.D., M. Qasim Ansari, M.D., Department of Pathology, Baylor College of Medicine, Houston, TX 77030

The development of multiple cysts in previously noncystic chronically diseased kidneys (acquired cystic kidney) of patients undergoing long-term hemodialysis has recently received a great deal of attention. Little has been published, however, on the occurrence of similar changes, in patients who have received continuous ambulatory peritoneal dialysis. We present two such cases, review the related literature and compare the features of these two closely related processes. It is concluded that the morphology of acquired cystic kidney seems to be independent of the type of dialysis and that hemodialysis is not necessary for the development of acquired cystic kidney disease.

11

ON SURROGATE MOTHERHOOD. Ghazala Javaid, M.D., Department of Child Psychiatry, Nassau County Medical Center, East Meadow, NY

Modern technology of conception and gestation poses religious, ethical, legal and emotional problems for those involved. If a wife is unable to conceive, a surrogate mother can be artificially inseminated by her husband's sperm. She will then carry the fetus to term "under contract". The problem arises when the owner of the "hired" womb changes her mind and does not want to give up the child that she carried since she has nurtured it with her own flesh and blood. It is plausible for her to get attached to the growing fetus and experience feelings of loss. Who has the right to be the mother? The legal contract was given priority in the Baby M case in New Jersey in 1987 and the surrogate mother did not get the child. Can lending a womb be considered along the same lines as offering blood for a transfusion, donating a kidney, cornea, heart, etc.? Race and religion is not considered a bar to contributing or receiving non-reproductive medical aides to enhance or prolong life. Enabling a couple to have a child and maintain their family togetherness can be an act of kindness. Yet it gets complicated: Can an unwed mother become a professional surrogate? There seems to be no place in religion for out-of-wedlock pregnancy. It is considered immoral but is the question of immorality one of physical intimacy only? Hazrat Abraham's wife was barren, she offered him her maid, Hajar as his wife who had their son Ismael. As long as the woman was given in "Nikah", Islam allowed another wife to bear a child for the barren couple. This is not the equivalent of paying a surrogate in contract. Apart from the religious/ethical/moral question, is surrogacy psychologically viable? In the author's opinion, surrogacy may be psychologically viable, if a woman is counselled before she enters a contract as to what the emotional consequences may be, before, during and after the pregnancy.

12

GENETIC MARKERS IN DUODENAL ULCER. M. Mujahid Ali and C. M. Habibullah, Department of Gastroenterology, Osmania General Hospital, Hyderabad, India.

A study has been carried out on 100 endoscopically proved duodenal ulcer patients and in 100 healthy controls to see the role of genetic factors in the precipitation of duodenal ulcer in our population. Serum pepsinogen levels, serum alpha - 1 - antitrypsin, Haptoglobin phenotyping and ABO blood group were studied as genetic markers. Serum pepsinogen levels were estimated by the method of Mirsky et al (1952) using haemoglobin as substrate. Serum alpha - 1- antitrypsin was measured as described by Jacobsson (1955). Haptoglobin phenotypes were studied by the method of Clark (1964) and ABO Blood grouping was determined using specific antisera. Hyperpepsinogenenemia, deficiency of alpha - 1- antitrypsin, Haptoglobin 2-2 type and "O" blood group were found to be markers more commonly associated with duodenal ulcer. It can be concluded that persons with these markers, particularly family members of the duodenal ulcer patients are more susceptible to develop this disease than others.

13

BONE MARROW FINDINGS IN AIDS. Dr. M. Qasim Ansari, Dr. Eugene Banez, Department of Pathology, Baylor College of Medicine, Houston TX 77030

Bone marrow biopsies were performed on 61 patients with HIV infections seen at the Harris County Hospital District from January, 1985 to July, 1987. Increased cellularity was observed in 76%. The M.E. ratio was increased 35%. Megakaryocytes were increased in 50%. In 38% lymphohistocyte proliferation was observed. 30% of patients showed granulomas. Acid fast bacilli were demonstrated in 11% and fungal stain showed regain in 10%. Malignant lymphomatous infiltrates were observed in 3. 5% of patients showed serous atrophy. 90% showed increased fibrosis. Iron stores were increased in 77% and decreased in 10%. We conclude that bone marrow changes are found in most cases and that the findings though nonspecific, are sufficiently characteristic to arouse one's suspicion of HIV infection.

14

THE CONGO RED STAIN FOR AMYLOID: REVISITED. M. Tarek Elghetany, M.D., Abdus Saleem, M.D., Department of Pathology, Baylor College of Medicine, Houston, TX 77030

The traditional way of identifying amyloid in tissue sections has been staining with Congo red and demonstration of green birefringence under crossed polars. The original method of Congo red staining, described by Bennhold in 1922, has undergone several modifications, the most common of which is the alkaline Congo red method described by Puchtler in 1962. Staining specificity is improved by preparing fresh stain and full saturation with sodium chloride. Further classification of amyloid proteins can be achieved by autoclaving or treating the tissue with potassium permanganate or alkaline guanidine. Autoclaving the tissues at a temperature of 120^0C for 30 minutes causes protein AA to lose affinity to Congo red stain. Prolongation of autoclaving time to 120 minutes results in the loss of congophilia of protein AL. The prealbumin type shows little or no change. Treating the tissue with potassium permanganate causes protein AA and B_2-microglobulin amyloid to lose their affinity to Congo red. Protein AA is sensitive to treatment with alkaline guanidine for 1 minute while protein AL and systemic senile amyloid protein (SSA) resist up to 2 hours of treatment. However, familial amyloid protein (FAP) can stand 2 hours of alkaline guanidine treatment without losing staining properties with Congo red. Immunofluorescence and immunoperoxidase methods are used to identify and classify amyloid proteins in tissues. Antibodies against the P component, proteins AA and AL and prealbumin related amyloid have been used with great precision. However, these methods cannot differentiate between familial and senile forms of systemic amyloidosis. Both forms are related to prealbumin and show cross reactivity.

15

OSTEOMYELITIS AND OTHERORTHOPEDIC PROBLEMS IN AFGHAN MUJAHEDEEN. Mohd K. Nour, MD, Trauma Service, Nassau County Medical Center, East Meadow, NY.

It takes a minimum of two weeks for the war injured victims of the Afghan-Russian conflict to arrive at the nearest medical facility in Peshawar, Pakistan. During this period his wounds are usually wrapped in cloth and his fractures immobilized by sticks or wooden boards. By the time he arrives in Peshawar, he is usually draining from the site of his open fractures. Acute and chronic osteomyelitis and septic arthritis is prevalent in most of the Afghan Mujahedeen within the hospitals in Peshawar, as well as in many of the refugees in the camps around Peshawar. The management of these cases involves mutliple surgical debridgements, sequestrectomies and saucerizations of bone with no attempt at any stage for skin closure. The common pathogenic organism is Staph Aureus with E. Coli as an occasional pathogen. The experience which the author gained from two visits and the present needs of the Afghan Mujahedeen will be presented.

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Not received in time for publication

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TWO YEAR EXPERIENCE IN CONVERT ACTIVITY. A. S. Hashim, MD, Rockville, MD.

Experience in reaching 783 converts to Islam over a period of two years (February, 1985 to February, 1987) will be presented. Al-Muhtadoon (converts to Islam) come from 16 states, mostly converts within the last two years, of different backgrounds, sex, color, and nationality. Slides to show the mechanics employed in the project, the rate of growth, comparative analysis, states represented, and the localities within, will be presented. The educational material offered and the pen pal activity along with tests given to the converts will be discussed.

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THE IN VITRO AND IN VIVO ACTIVITY OF CIPROFLOXACIN. Y.J. Drabu, M.D., S. Methar, M.D., P.H. Blakemore, M.D., Department of Microbiology, North Middlesex Hospital, Edmonton, London N18 10X, England.

The in vitro antibacterial activity of ciprofloxacin was compared with three quinolones, three aminoglycosides and three cephalosporins against 500 clinical isolates including 100 gentamicin and 35 nalidixic acid resistant gram negative organisms. The MICs were performed by the Agar dilution method using a final inoculum of 10^5 c.f.u./ml. The results showed that ciprofloxacin was the most active drug against the aerobic gram negatives. Aminoglycoside resistance did not affect the median or MIC 90 however strains resistant to nalidixic acid showed an increase in the median but not the MIC 90. The in vivo activity of ciprofloxacin was tested in an open prospective study on 57 hospitalized patients with infections caused by multi resistant gram negative bacteria. A variable dosage regimen was used. Clinical and bacteriological success occurred in 49 patients including 12 with bacteraemia. Eight patients were classed as failures; although clinical improvement occurred the organisms persisted to the end of therapy. Persistence was associated with the presence of prostheses and four of these isolates showed a 4-fold rise in MIC to ciprofloxacin; two of the 57 patients had minor side effects. In summary ciprofloxacin has good in vitro and in vivo activity against a wide range of aerobes including multi resistant gram negative bacteria.

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TREATMENT OF RESPIRATORY TRACT INFECTIONS WITH CIPROFLOXACIN (BAY 9867), A NEW QUINOLONE ANTIBIOTIC. F. Khan, Q. Afzal, S. Raoof, C. Wollschlager, J. Guarneri, V. LaBombardi, Departments of Medicine and Microbiology, Queens Hospital Center, Jamaica, and Nassau County Medical Center, East Meadow, New York.

We have evaluated the safety and efficacy of Ciprofloxacin (Cipro) in an oral dose of 750 mgm twice a day in a variety of respiratory tract infections (RTI). In a study of 80 consecutive patients we evaluated Cipro in an open protocol and in another controlled double-blind study we compared Cipro (750 mgm orally BID) with Ampicillin (500 mgm orally QID) in 120 patients. The total number of patients studied was 200. The bacteria isolated from these patients included predominantly gram negative species - Hemophilus, Klebsiella, Pseudomonas, E. coli and to a lesser extent S. Pneumoniae and other gram positive organisms. All these isolates were sensitive to Cipro but 22% were resistant to Ampi. Our conclusions from this study included: 1) Cipro showed broad in vitro antibacterial activity; 2) it was highly effective therapy for RTI (96%) with marked advantage of BID dosing and better sputum sterilization (95%) than Ampi (78%). Cipro was associated with less diarrhea and a trend toward more theophylline toxicity than Ampi. (Ref: J. Antimicrobial Chemotherapy 1986; 18:Suppl D 139-145, 4) In the subset of 14 patients who had additional radiographic features of pneumonia, Cipro was effective. (Ref: New York State Journal of Medicine, In Press) Since September 1986 we have been studying the effectiveness of I.V. Cipro 200 mgm BID in serious RTI and comparing it with a third-generation cephalosporin, Ceftazidime. Preliminary analysis of results in the 40 patients studied indicate that Cipro is quite effective in serious RTI as well; the results of the parenteral study will be presented separately.

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COMPARISON OF CIPROFLOXACIN (IV/PO) WITH CEFTAZIDIME (IV) IN TREATMENT OF LOWER RESPIRATORY TRACT INFECTIONS (RTI). Q. Afzal and F. Khan, Department of Medicine, Nassau County Medical Center, East Meadow, New York.

We have previously reported on the effectiveness of oral cipro in treatment of RTI (A.R.R.D. 133 A126 Apr. '86). In this study we compared the safety/efficacy of IV cipro (200 mg BID) with IV ceftazidime in serious RTI. Bacterial infection was "presumed" if patients had compatible clinical features or "proven" if patients had, in addition, a positive sputum culture. Of the 40 patients treated (cipro 22, ceft 18), 30 were evaluable and 17 of these produced 27 bacterial isolates - Haemophilus (12), Pseudomonas (6), Klebsiella (2), other gram negatives (4) and gram positives (3). The results are tabulated:

CIPRO	CURE/FAILURE	% CURE	CEFTAZIDIME	CURE/FAILURE	% CURE
Proven	8/0	100	Proven	9/0	100
Presumed	8/1	89	Presumed	2/2	50

4/22 in the cipro group had side effects necessitating discontinuation of therapy in one, while none in the ceftazidime group had side effects. In conclusion, IV cipro is effective in the treatment of serious bacterial RTI with the advantage of BID dosing and sequential IV/PO administration.

23

EPIDEMIOLOGY OF URINARY SCHISTOSOMIASIS IN DASHT-AZADEGAN WEST OF AHWAZ, KHUZESTAN, IRAN. Abbas-Mahmoudzadeh, College of Paramedical, Teheran, Iran.

Urinary schistosomiasis is endemic in Kuzestan, southwest of Iran. Schistosoma haematobium is the only shcistosome found in Iran. A control program in Khuzestan was carried out since 1968. In this study a total of 52 villages located in Dasht-Azadegan region of 40 snail habitates were surveyed. The prevalence of infection in urine sampesl were 0.59/1000 (6 cases only). The prevalence of infection in different age groups and sexes were determined. Intensity of infection were between 5-80 eggs per 10 ml of urine. In malacological survey no alive Bulinus truncatus the snail intermediate host of S. haematobium were found, only a few old shell of this snail were observed in some habitates. The other aquatic snails found were lymnea, physa, Gyraulus, Viviparus, Melanoides in running and stagnant water bodies in the area. The infected cases in this study were treated with metrifonable 10 mg/kg in two doses at ten day intervals.

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NEONATAL TETANUS MORTALITY IN IRAN. H. Malek Afzali, M.D., M. Chasma M.D., School of Public Health, Tehran, Iran.

During March and October 1985 surveys on basic health indicators were carried out on 10% of rural and urban population of Islamic Republic of Iran. Families were selected by systematic random sampling. In the visited families, all deaths were recorded by age, sex, and cause. Deaths in the first month of life received particular attention for signs of neonatal tetanus. The neonatal mortality rate was 21 per 1,000 live births and neonatal - tetanus mortality rate was 5 per 1,000 live births. It may be estimated that over 10,000 children died from tetanus in 1985 in Iran. Neonatal tetanus mortality rate was lower in urban areas than in rural areas. The elimination of neonatal tetanus was still in its early stages and immunization of women (now 23%) and training of traditional birth attendants need to be accelerated.

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RESERVOIR HOST OF CUTANEOUS LEISHMANIASIS IN KHUZESTAN, SOUTH-WEST OF IRAN. R. Hoseinidoust, E. Javadian, University of Tehran-Dezful Research Station, Iran.

Cutaneous Leishmaniasis is one of the important endemic diseases in most parts of Iran. This protozoan parasite is usually transmitted by sandfiles. There are two types (rural and urban) in Iran. In Khuzestan, the rural type is mostly prevalent. Previous studies demonstrated that Ahwaz and Dezful suburban areas are highly endemic for cutaneous Leishmaniasis and mostly children are infected. The Dasht Abbas and Ain-khosh areas located in north west of Dezful were selected for this study. The wild rodents in this area were captured, with distribution of 63% Tatera indica, 12% Nesokia indica, and approximately 26% Mus musculus, but no Rhombomys were captured. The captured rodents were searched for wounds on the nose and ears, scrapings were collected from the ears. Extracts were tested directly for Leishman bodies after staining with Geimsa and also were inoculated in albino subor mouse. The results of this study demonstrated that 9 out of 75 Tatera indica (12%) and one out of 14 Nesokia indica (7%) were naturally infected witn Leishmania major. Some of the inoculated albino mice demonstarted cutaneous leisons on the site of injection. The slide preparation of these lesions demonstrated Leishman bodies. The isolated strains were maintained in the laboratory on albino mice. It is worth mentioning that previously experimental exposure of Tatera indica to Leishmania major demonstrated a good sensitivity of this reservoir.

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LIFE EXPECTANCY IN IRANIAN URBAN POPULATION. H. Malek Afzal, M.D. and M. Mahmoodi, M.D., School of Public Health, Teheran, Iran.

In this article the life tables of Iranian an urban population for male and female are calculated. The tables are based on data which were collected in a survey in 1984 on 10% of the urban population, excluding Tabriz, Shiraz, Esfahan, Teheran and Ilam province. The sample was divided in 3 groups according to IMR in different provinces. The life tables are calculated for the 3 groups of provinces separately as well as for the total country. To obtain more correct information and in order to avoid errors as to age of the population and age of death the logit system was used according to the Asian - African standard presented by William Brass. Sample size includes 779,976 males and 746,403 females. The results show that the life expectancies at birth are 66 and 70 years for males and females respectively. These figures vary between 61.2 to 68.7 for men and 68 to 71.5 for women in different provinces.

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DOUBLE BLIND CONTROLLED CLINICAL STUDY OF HERBAL DRUGS CODED AS BSL_5 + BS_4 AND BSL_3 + BS_1 IN VITILIGO: A THERAPEUTIC AND TOXICOLOGICAL STUDY. M. A. Waheed, M. Bano, M. M. Kahn, Central Research Institute For Unani Medicine, Hyderabad, Andhra Pradesh, India.

Vitiligo is an acquired depigmentation of the skin due to inactivation of previously active melanocytes, characterized by appearance of white macules of different sizes and shapes over the skin. It affects 1% of the World, and 4% of the Indian population. The aetiology and pathogenesis is unknown. Co-existing dietary, endocrine, nervous, and humoural factors seem to be of some importance in the precipitation of the disease. Two hundred and eighty patients with a clinical diagnosis of vitiligo were studied in a double blinded randomized clinical trial. The patients were treated exclusively with either BSL_5 + BS_4 or BSL_3 + BS_1 (coded formulae) using identical regimes. Treatment was continued till the complete remission of depigmented patches or 1 year of therapy had been given. They were fully assessed at entry and at every three months. Drugs BSL_3 + BS_1 were considered to be standard and the results were compared. Both drugs were found to be effective in repigmenting the depigmented areas. The coded drugs BSL_5 + BS_4 resulted in repigmenting the patches in 85% of the patients whereas the response rate with BSL_3 + BS_1 was 65%. No serious side effects were encountered in either treatment group.

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DOUBLE BLIND CLINICAL STUDY OF BUTEA MONOSPERMA AND CHICORIUM INTIBUSLINN IN VIRAL HEPATITIS. M. M. Khan, A. M. Tobal, Central Research Institute for Unani Medicine, Hyderabad, Andhra Pradesh, India.

The merits of two oral drugs coded as DPH (flowers of Butea Monosperma) and D_4 (Chicorium Intibus) in Viral Hepatitis were compared in a double blind randomized study on 70 patients treated with DPH and 72 patients treated with D_4. A daily dose of 25 gms was given as an aqueous extract. Treatment was continued till clinical and biochemical recovery or three weeks of therapy had been given. Both drugs were found to be effective in controlling the progress of the disease as well as restoring the liver functions. Sixty-two (87%) and 60 (78%), respectively, of the treated patients recovered completely. The mean duration of treatment was 16 and 23 days respectively. DPH appeared to be more potent. The liver regenerative activity was confirmed by pharmacological studies.

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SONOGRAPHIC APPEARANCE IN BILIARY ASCARIASIS. M. S. Khuroo, M.D., and S. A. Zargar, M.D., Department of Gastroenterology, Sher-i-Kashmir Institute of Medical Sciences, Kashmir, India.

Biliary ascariasis is equal to gallstones as a causative factor of adult biliary disease in Kashmir Valley, India. In the present study, we prospectively evaluated the role of sonography in the diagnosis of biliary ascariasis and its utility in monitoring the exit of worms from the bile duct. Sonography was performed on 28 patients with proven biliary ascariasis by endoscopic retrograde cholangiopancreatography. The bile ducts were dilated on sonography in 26 patients. The characteristic sonographic features of worms in the bile duct were: a) a single long linear or curved echogenic structure without acoustic shadowing in two patients; b) multiple long linear parallel echogenic strips usually without acoustic shadowing in 15 patients; c) a thick long linear or curved non-shadowing echogenic strip containing a central, longitudinal anechoic tube, probably representing the digestive tract of worm, in seven patients, and d) the characteristic movement of these long echogenic structures within the bile duct in eight patients. One patient with pancreatic ascariasis revealed long linear non-shadowing echogenic strips in dilated pancreatic duct. Sonography is a simple quick and non-invasive method for diagnosis and follow up of patients with biliary ascariasis.

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THE EFFECT OF SHORT STAY AT 300 METERS BELOW SEA LEVEL (DEAD SEA AREA) ON SEVERAL BLOOD HORMONES. N.A. Sliman, K.M. Ajlouni, M.M. Abu-Hajir, Department of Internal Medicine, Faculty of Medicine, University of Jordan, Amman, Jordan.

Thirteen healthy non-smoker male students, 21-22 years of age, were selected. Blood samples were collected in plain tubes on Day 0 in Amman (altitude 774 meters above sea level) before they left to stay near the Dead Sea area in the Jordan Valley (Altitude 300 meters below sea level) for a three-month agricultural course. Blood samples were also collected while in the Jordan Valley on days 3, 5 and 90, the serum was separated and frozen on the same day. Later, hormonal assay was done by radioimmunoassay (RIA) for Prolactin (PRL), Luetinizing Hormone (LH), Follicular Stimulating Hormone (DSH) and Testosterone. There is a tendency for the PRL level to fall and FSH to rise with duration of stay, but this did not attain statistical significance. The LH level had increased at Day 3 ($P < .005$) and started to decrease at Day 5 to reach almost baseline levels by Day 90. Testosterone levels decreased at Day 3 and Day 5 ($P < .002$), but by Day 90 returned back to above baseline value. In conclusion, it seems that short stay at below sea level may result in transient changes in gonadotrophins and testosterone which seem to reverse with more prolonged stay, the physiological significance of which remains to be studied.

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Not received in time for publication

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EARLY SMALL AIRWAY IMPAIRMENT IN ELECTRONIC ASSEMBLY WORKERS EXPOSED TO MIXED CHEMICALS. R.T. Myint, M.D., Occupational Medicine, Department of Comprehensive Medicine, University of South Florida, Tampa, and S. Myint, B.S., Post Graduate Studies, Columbia University, New York.

A pilot study was conducted to investigate small airway impairment in electronic assembly workers with simultaneous exposure to multiple interacting chemicals like 111 Trichloro, MEK, Locktide bonding agent, Resin Compound, Freon, Lead, Flux, Tin, Alcohol, Hysol, and Methyl Chloride were studied. 406 employees from two plants in the Tampa area were included. Spirometry tests were performed by Puritan Bennett Machine and computer printouts were obtained on FVC, FEV_1, FEF_{25-75}, and FEV_1/FVC ratio values. 113 non-smokers and 60 smokers from salary employees were included as control groups. Among 233 assembly workers, 84 were non-smokers and 149 were smokers. It is interesting to note that FEF_{25-75} volume impairment is present in spite of normal FVC and FEV_1 readings. Also, cigarette smokers who work in assembly lines have a higher incidence of small airway impairment than salary workers. Among the total population of 403 workers, 5.6% of salary workers have impairment of FEF_{25-75} whereas 17% of assembly workers have lower readings. In conclusion, evidence of clinical observation that poor performance in FEF_{25-75} could be an early indicator of mixed chemical insult found in electronic assembly workers are discussed. Recommendation of careful prospective investigation and research is warranted.

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ADULT RESPIRATORY DISTRESS SYNDROME. Ahmed Sayeed, P. O. Box 821, Sweeney, TX 77480.

Adult Respiratory Distress Syndrome was first recognized by Patty and Ashbaugh in 1967. It is characterized by severe dyspnea, hypoxemia which is unresponsive to oxygen therapy, decreased lung compliance, diffuse pulmonary infiltrates, alveolar collapse with hemorrhages, edema and hyaline membrane on the alveolar surfaces. The syndrome may be associated with shock, infections, trauma, aspirations, inhalation of noxious gases, drugs, neurologic lesions, and miscellaneous conditions like fat embolism, D.I.C., and multiple blood transfusions. In these circumstances if a patient presents with the above mentioned symptoms and signs, either insidiously or in an abrupt manner, one must think of the diagnosis of adult respiratory distress syndrome. The pathogenesis of the syndrome is not quite clear but it is postulated that singlet oxygen causes damage to the Pneumocytes II which in turn results in alteration or deficiency of surfactant. The other damaging factors considered are Complement C5a and C3b, platelet and fibrin microthrombi, vasoconstrictive substances, neurogenic reflex mechanism, and brain hypoxia. The mortality rate is high. At autopsy the lungs are found to be heavy and edematous with patchy alveolar collapse, congestion and hemorrhage. There is diffuse capillary damage, proliferation of Pneumotypes II, and presence of hyaline membrane on alveolar surfaces. Platelet and fibrin microthrombi are also found. Management of this syndrome consists of treatment of the underlying condition, Positive-end-expiratory pressure ventilation (PEEP), and oxygen therapy at lower concentration and tension (FI02 not exceeding 50%). Administration of the corticosteriods is controversial.

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MULTIPLE PULMONARY PARENCHYMAL MASSES IN AN ASYMPTOMATIC MALE. M. Mujahid Salim and Faroque A. Khan, Queens Hospital Center, Jamaica, NY and Nassau County Medical Center, East Meadow, NY.

A 35 year old non-smoker male came with a history of intermittent cough for one month. He denied fever, weight loss or chest pain. A chest x-ray film done three years back was normal. Physical examination showed no cardiac murmurs, lungs were clear, no lymphadenopathy was present. The hematocrit was 48 per cent and the white cell count was 6,200. An arterial blood gas showed pH 7.4, CO_2 was 34, PO_2 was 88, with a saturation of 97 per cent. A chest x-ray film revealed two large right parahilar masses with one smaller parenchymal density. Computerized tomography showed three sharply defined high attenuation masses in continuation with the vascular tree. A-V malformations, pulmonary artery aneurysms, pulmonary varices and coarctation of the pulmonary arteries were initially considered among the differential diagnosis. The shunt and mediastinal flow studies as well as the angiogram were normal, ruling out the possibility of a vascular mass. Right cervical lymphadenopathy was noted at this point and a biopsy was done. Light microscopy showed nests of pleomorphic cells with moderate mitoses. Ultrastructural evaluation revealed neurosecretory granules. Immunoperoxidase study for neuron specific enolase was focally positive. Thus, the diagnosis of a low grade well differentiated neuroendocrine carcinoma with metastases was made. These bronchopulmonary carcinoids give rise to metastatic disease in up to 73 per cent of the cases. This unusual case shows the problem of solid masses such as cystic nodular sclerosing Hodgkin's disease and bronchopulmonary carcinoids simulating vascular lesions. Pulmonary varices and A-V fistulae on the other hand can be mistaken for hilar disease and tumors.

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PULMONARY VENO-OCCLUSIVE DISEASE SECONDARY TO ANAPLASTIC CARCINOMA METASTATIC TO PULMONARY VEIN. M. K. Chaudhary, R. Chaudhary, L. Rajin, Dept. of Medicine, Nassau County Medical Center, East Meadow, NY 11554.

Pulmonary veno-occlusive disease (PVOD) is a rare entity. It is diagnosed by microscopic examination of lung tissue which reveals narrowing of pulmonary veins and accumulation of paucicellular material in the lumen. We present a case of a 58 year old white housewife who was admitted for dull mid-back pain and worsening dyspnea. She smoked cigarettes for 40 years. Physical exam revealed tachycardia and tachypna. Bronchoscopy revealed diffuse hyperemia, friability, and marked thickening of mucosal folds in right bronchial tree. She developed severe respiratory distress and wheezing and was supported with mechanical ventilation. Swan-ganz catheterization demonstrated pulmonary hypertension. V/Q lung scan showed decreased perfusion in entire right lung. Pulmonary angiogram revealed prolonged circulation time in right lung and filling defect in right pulmonary vein. Patient died after protracted hospital course. Autopsy revealed metastatic tumor in paratracheal, hilar, and subcarinal lymph nodes, as well as in the wall of the right pulmonary vein. There was Y-shaped thrombus in right pulmonary vein. Microscopic examination of pulmonary vasculature revealed characteristic changes of PVOD. In our patient, metastatic tumor probably infiltrated from hilar lymph node into right pulmonary vein, which started coagulation cascade and thrombosis. This led to stasis of circulation in right lung and pulmonary hypertension. Pulmonary veno-occlusive disease affects all age groups but most of the cases are below the age of 20. It has been reported with numerous diseases, eg. infections, collagen vascular disease, Hodgkin's lymphoma, and cytotoxic therapy. No definite treatment is available, but anticoagulants and steriods have been tried.

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COMPARATIVE EVALUATION OF CLINICAL HISTORY, CHEST RADIOGRAPHS, STANDARD CT, THIN-SECTION CT, REFERENCE-PHANTOM CT IN THE CLASSIFICATION OF SOLITARY PULMONARY NODULE. A. Khan, P. G. Herman, P. Stevens, K. Rojas, M. Graver, Dept. of Radiology, Long Island Jewish Medical Center, New Hyde Park, NY 11042.

To evaluate the role of computed tomography in the investigation of solitary pulmonary nodule, a prospective study of 51 consecutive patients was performed. A strict selection criteria was used. Only nodules with smooth or lobulated margins were included. Nodules with spiculated margins, cavitation or gross calcification were excluded from the study. In the latter half of the study, nodules larger than 3 cm in diameter were not included in the study. Each nodule was classified as benign or indeterminate by a consensus score on the basis of clinical history, chest x-rays, standard 10 mm-section CT, thin 1.5 mm-section CT and reference-phantom CT. All scans were performed on a GE 9800 system, using 512 matrix and no contrast. Of the 41 proven nodules, 33 were benign and 8 malignant. When CT was performed using phantom, 66% of benign nodules were correctly classified. Thin-section CT alone correctly indicated benign process in 42%. Standard section CT was accurate only in 20% of benign nodules. In conclusion, in our study, thin-section CT was better than standard CT for assessment of solitary pulmonary nodules. Reference-phantom CT had a higher sensitivity than thin-section CT for characterization of benign pulmonary nodules. CT densitometry of solitary pulmonary nodules was less accurate in lesions larger than 3 cm in diameter.

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CARDIOVASCULAR APPLICATIONS OF LASER. Amin H. Karim, M.D. MRCP, Consulting Cardiologist, The Methodist Hospital, and St. Lukes Episcopal Hospital, Houston, TX

The industrial and commercial applications of laser technology have been multiplying since its development nearly 25 years ago. Furthermore, its medical potential is being increasingly recognized. Refinements in laser technology are paving the way to a fuller realization of the advantages of this approach in the management of cardiovascular diseases. The cardiovascular applications of laser are now undergoing extensive experimental and clinical investigation. This report will review the current state of the cardiovascular uses of laser.

CARDIAC TRANSPLANTATION. Husain F. Nagamia, M.D., Tampa Heart Center, Tampa, Florida, U.S.A.

Cardiac transplantation has now become a universally accepted technique and presently more than 200 cardiac centers are doing cardiac transplantation, when in 1978 only five centers were performing heart transplants in the U.S.A. Tampa Heart Center performed its first heart transplant in 1985 and until today 16 heart transplants have been performed successfully. Both orthotopic and hetertopic transplants have been performed. A brief history of cardiac transplant will be presented. Procurement, preservation, and techniques of operation will be discussed. Problems encountered in post operative care will be discussed and outlined. The need for a bridge in the form of ventricular assist devices, or mechanical heart will be discussed. Problems posed with immunosuppression and rejection will be presented. Our experience with heart transplantation at the Tampa Heart Center will be presented. Future prospects in North America and in the developing nations will be discussed.

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AN EPIDEMIOLOGICAL STUDY OF URINARY SCHISTOSOMIASIS IN SHOUSH DANIEL AREA.
M.S. Moradi and J. Masood, Faculty of Health, University of Teheran and University of Tarbeiat Modarres, Teheran, Iran.

To study the incidence of urinary schistosomiasis, we analyzed 13844 urine samples collected from 44 villages of Shoush town area. In only 3 villages were 17 infected patients detected. The peak prevalence rate occurred in the 5-9 age groups with 0.39% and 0.21% in 40-44 age groups. The infection rate among males and females was 0.1% and 0/13 respectively. The infection rate in children under 15 years old was 0.1% and in adults 0.16%. The intensity of infection has been estimated by the number of eggs detected in 10 ml of each urine sample. The maximum egg count was 20 in a 10 year old boy and the minimum number was 1 egg per 10 ml urine sample. In the malocological survey, Bulinus truncatus were found in only 2 villages, but the other equatic snails like lymnea, physa, melanopsis, mellanoides, teoduxis and Giraulus were found in most snail habitats around the villages. Chemotherapy was performed in 17 infected persons in three villages using Metrifonate (Bilarcil) by 10 mg/kg of body weight, 2 doses at 10 day intervals. The cure rate obtained 30 days after administration of a second dose of the drug was 80%. There were no major complications and side effects observed, and the drug was tolerable and easy to administer.

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A BLUE PRINT FOR LONGTERM DEVELOPMENT OF ISLAMIC MEDICAL ASSOCIATION.
Husain F. Nagamia, M.D., Tampa Heart Center, Tampa, Florida. U.S.A.

Long term development is divided into three Phases. Phase 1 - Immediate Long Term 0-5 years, Phase 2 - Medium Long term 0-10 years, Phase 3 - Distant Long term 0-20 yers. History - Islamic Medical Association has been in existence for 20 years. Its immediate objectives have been achieved. These were to get the Muslim immigrant physicians together, discuss their common goals and ambitions, examine their problems, and possibly offer them solutions while preserving their Islamic heritage in an alien environment. In the Immediate Long Term Phase I.M.A. needs to strengthen and increase its membership so that the organization will become strong and viable. Suggestions for this development will be offered in this paper. In Phase 2 I.M.A. needs to examine the changing scenario of American Medicine. More specifically the stoppage of all physician immigration into this country including Muslim physician is going to deplete membership unless I.M.A. in cooperation with the Muslim communities in North America ensures that sufficient Muslims take up the Medical profession in this country. During this period also I.M.A. needs to address development of relationship between I.M.A. and Muslim Medical Institutions and organizations throughout the Muslim World and harness fully its potential and unlimited human resources. In Phase 3 I.M.A. needs to address the development of concept of "ISLAMIC MEDICINE" as the true method in practice of Medicine. A work plan for "ISLAMIZATION OF MEDICINE" and development of an "INSTITUTE OF ISLAMIC MEDICINE" for this purpose will be discussed and presented.

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ALCOHOL AND THE HEART. Sultan Ahmed, M.D., F.R.C.P.(C), F.A.C.P., F.A.C.C., New Jersey Medical School, Newark, New Jersey.

While the toxic effects of acute or chronic ethanol use on cerebral and hepatic function have long been recognized, evidence for alcohol's role as an etiologic factor in the heart disease has been slow in developing. In fact, alcohol, at least in modest amounts has commonly been prescribed as a medicinal agent. Many observations from our laboratory have indicated that ethyl alcohol may indeed have chronic toxic effects on the cardiovascular system. We have shown that alcohol when used in non-intoxicating doses elicits a depression of cardiovascular function in normals and unhabituated subjects. Chronic alcohol usage results in deterioration progressing from isolated impairment of muscle function to stages characterized successively by impaired pump performance, cardiomegaly, symptomatology and eventually clinical decompensation. Various conduction abnormalities and arrhythmias are also common and myocardial infarctions may appear on a non-coronary basis related to chronic ethanolism. As observed in the canine study, the changes in the myocardial cation, collagen accumulation and/or excess of calcium in the myofibrils may be the main pathogenetic mechanism responsible for the cardiac dysfunction.

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BILIARY AND PANCREATIC DYSKINESIA: CLINICAL AND MANOMETRIC STUDYWITH EVALUATION OF DRUG THERAPY WITH NEFIDIPIN. M.S. Khuroo, M.D., S.A. Zargar, M.D., Dept. of Gastroenterology, Sher-i-Kashmir Institute of Medical Sciences, Soura, Srinagar (Kashmir), India.

Endoscopic pancreatic and biliary manometry were performed in patients with typical pancreatic or biliary type pain in whom no anatomic abnormality could be found. Forty four of 119 consecutive post-cholecystectomy patients studied had no organic cause for their symptoms. Twenty four of these patients formed the subjects of this study. Ten healthy volunteers, 25 patients with choledocholithiasis, and 10 patients with chronic pancreatitis constituted the control group. Duodenoscopy was performed under sedation with intravenous diazepam. The manometry catheter with 1mm diameter side hole located 4mm from its sealed distal tip was perfused at 0.5ml/min. with bubble free water using Narco infusion pump. The catheter position was verified by Fluoroscopic examination. Pressures were recorded from the ducts, high pressure zone and duodenum by station pull through method. Another manometry catheter attached at the distal end of the endoscope recorded duodenal pressures. Of the 24 study subjects, pressures could not be recorded in 3 patients due to papillary stenosis. Eleven of the remaining 21 patients had elevated pressures when compared with control groups. The elevated pressures were in the bile duct in 4 patients. Nefidipin (10mg administered sublingually) lowered the elevated pressures significantly within 15 min. of observation. Fourteen patients with proven biliary or pancreatic dyskinesia were given oral Nefidipin therapy 10mg three times per day. Response was rated as excellent, good and poor on a score depending upon frequency and severity of pain. The response was rated as excellent in 4 patients, good in 7 patients and poor in 3 patients. These 3 had papillary stenosis.

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BASIC HEALTH INDICATORS IN ISLAMIC REPUBLIC OF IRAN. H. Malek Afzali, M.D., School of Public Health, Teheran, Iran.

In view of the fact that facilities for reliable recording of births and deaths are not available in the country, and particularly in rural areas, the collection of precise data on these events is not possible. Thus birth and death indicators could not be surveyed in reasonable confidence. The present survey was carried out in three stages during the period from March 21, 1985 to August 22, 1986 in rural areas, urban areas, and four big cities. In these surveys about 10% of all families' questionnaires regarding deaths and births were completed in a systematic way. Age, sex, literacy, live births during the past year, deaths during the past year, and finally the cause of deaths as determined by the head of the family, were specified in the questionnaire. If the data is weighed with a view of rural, urban, and big city populations the following results form the basic health indicators of Iran 1984-85:

Population - 46,500,000

Crude birth rate	40.4/1,000	Crude death rate	6.4/1,000
Neonatal mortality rate	20.7/1,000	Infant mortality rate	50.7/1,000
Maternal mortality rate per 10,000 live births	13.6		

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BIOTECHNICAL PARENTING: AN ISLAMIC VIEWPOINT. Abul Fadl Mohsin Ebrahim, Ph.D., Durban, South Africa.

It can not be denied that biomedical science has made positive contributions towards assisting infertile couples in becoming parents. The technological methods used in making them realize this are sometimes ethically questionable. But when evaluating such techniques under the Islamic framework, it is not looked upon only on the basis of ethics. In the Islamic system ethics are not divorced from law. Thus, the question that finally arises is whether such techniques are valid under Islamic law? We have attempted to analyze all biotechnical possiblities and have come to the conclusion that only artifical insemination with the sperm of the husband (AIH) can be regarded as lawful. It was also pointed out that even if the husband has to masturbate in order that his semen be obtained to inseminate the ovum of his wife, it would be permissible under the provision of the principle of the "rule of necessity" as stipulated in Islamic Law. The other technique that could be looked upon as permissible would be In Vitro Fertilization (IVF) where the ovum of the wife is fertilized by the sperm of the husband. All other remaining techniques can not get legal sanction, for they involve an element of adulterous union and/or could destroy the institution of marriage. The Qur'anic verse (42:50) which states that "it is within the power of Allah to leave barren whom He wills" enables Muslims to resign themselves to the will of Allah in the event that both the process of artificial insemination and IVF fails to leave them without offspring. Hence, we may conclude that in trying to resolve infertility through the two above mentioned technological means does not "tamper" with the Sunan ("Ways") of Allah. Rather, it should be viewed as trying to "cure' oneself of infertility in order to enjoy the divine blessing of fathering/mothering.

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CLINICAL SPECTRUM AND STEROID RESPONSE IN CHILDHOOD GLOMERULONEPHRITIS (GN) IN THE TROPICS. M. Hoque, M.D., H.U. Rashid, M. Q-K Talukder, M.R. Khan, Department of Medicine, Institute of Post Graduate Medicine, Dacca, Bangladesh.

Two hundred children with GN admitted in the department of pediatrics, Institute of Postgraduate Medicine and Research, Dhaka during January 1983 to September 1985 were studied. The mean age of the patients was 6.4 years (range 1-12 years; male 122, female 78). Ninety nine children presented with nephrotic syndrome (NS); 88 with acute nephritic illness (NI) and 13 with acute renal failure (ARF) and NI together. Microscopic examination of the urine of the NS group shows microscopic hematuria in 16% of cases whereas in the NI group in 69% of cases. The mean blood urea and serum creatinine in the NS group was 5 mmol/l and 180 mmol/l respectively. ASO titer was elevated (> 250 Todd units) in 85% in the NI group but in 20% of the cases in NS group. RA test was positive in 13.5 cases and HBsAg in 6% of cases considering both the groups. No patient of the NI group was given steroids and all remitted spontaneously within 8 weeks including cases of ARF. In the NS group steroid (ISKDC schedule) was given in all patients. Needle biopsy was done in 15 patients who did not respond to steroid. Histological diagnosis in these patients were minimal change (7), proliferative GN (6), mesangiocapillary GN (1) and focal glomerulosclerosis (1). It is concluded that steroid responsive GN comprises 42% of the children in this series.

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EPIDEMIC NON-A, NON-B IN INDIA. M.S. Khuroo, Department of Gastroenterology, Sher-i-Kashmir Institute of Medical Sciences, Soura, Srinager, Kashmir, India.

Epidemic non-A, non-B hepatitis is distinct from parenterally transmitted non-A, non-B hepatitis. Epidemic non-A, non-B hepatitis occurs as explosive outbreaks of jaundice. The disease affects selectively the 2nd, 3rd and 4th decade of life with equal involvement of the males and females. The icteric disease is considerably less in children. The jaundice has a high incidence in pregnant women. Pregnant women are affected eight times more than non-pregnant women and men of the same age. The mortality in the 3rd trimester of pregnancy is exceedingly high. The epidemic lasts in the community for a period of 6-7 weeks. The incubation period of the disease is 10-40 days. The disease is self-limiting with monophasic enzyme elevation and does not lead to chronic hepatitis. The histological changes are characteristic and show intralobular bile plugs with surrounding pseudo-ductular formation and relatively less lobular disarray when compared to hepatitis A and hepatitis B. These data point to the possibility of another human hepatitis virus of non-A, non-B type transmitted fecal oral with distinct epidemiological features from parenterally related non-A, non-B. Recently many investigators have reported transmissible agent in this disease in man, monkey and marmoset and have identified 27 NM virus particles in the stool samples of patients with this disease.

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MEDICAL MANAGEMENT OF CORONARY ARTERY DISEASE. J. Qazi, M.D., State University of New York, Buffalo, New York.

The management objectives for ischemic heart disease (IHD) or coronary artery disease (CAD) can be divided into general and specific goals. The general goals revolve around the improvement in the quality and quantity of life of patients with established disease. The specific goals relate to the control of specific ischemic manifestations and modification of various risk factors. There is objective evidence that selected patients with certain high risk lesions in their coronary vasculature have a longer life expectancy if they receive coronary bypass surgery. Beyond this, while it is reasonable to assume that other means of controlling CAD - specifically, risk factor modification, general medical measures and specific pharmacotherapy, can also improve prognosis, evidence is insufficient at this time to conclusively prove this to be the case. Based on clinical data it is probable that attempts to reduce atherosclerosis risk factors, especially hypertension, hyperlipidemia, and cigarette smoking will reduce the incidence of CAD morbidity and mortality in the general population. However, the role of risk factor modification in the patient with established CAD is not as clear. Nevertheless, since artherosclerosis is a dynamic, progressive condition and prognosis correlates with the severity of the disease, it makes sense to strive for risk-factor reduction. A large variety of drugs are available these days to specifically treat various manifestations of CAD. Angina pectoris, the most common presentation of CAD, can be successfully managed in the vast majority of patients with nitrates, beta-blockers or calcium-blockers, either alone or in combination. Introduction of thrombolysis and various newer anti-arrythmic drugs have also gone a long way in the management of these patients.

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UNUSUAL RESPONSE OF THIONAMIDE COMPOUNDS IN TEHERAN. F. Azizi, M.D., Shaheed Beheshti University of Medical Sciences, Eveen, Tehran, Iran.

We have previously reported that treatment with recommended doses of methimazole (MMI) rapidly causes hypothyroidism in patients residing in Teheran, an area of iodine deficiency (J. Clin, Endocrinol. Metab. 61:374, 1985). The response to Propylthiouracil (PTU) therapy was evaluated in 10 patients with diffuse toxic goiter residing in Teheran. The mean free T4 and T3 indices (FT4I and FT3I) decreased from 25.1±6.8 and 430±80 to 13.2±2.1 and 162±44 respectively, after 2 weeks of PTU administration (100 mg, twice daily). Four weeks after treatment, FT4I had decreased to 8.5±2.1 and PF3I was 140±35). Four of 10 patients had subnormal FT4I of which one had subnormal FT3I. In 8 pregnant women with thyrotocicosis, administration of MI (10 mg twice daily) for 4 weeks resulted in a fall of FT4I from 20.6±4.9 to 6.2±4.3, and of FT3I from 518±127 to 136±54. Three of 8 had subnormal FT4I. For the rest of the pregnancy, all were successfully maintained euthyroid with 2.5 to 5 mg MMI daily. We conclude that recommended dosages and regimens of thionamide compounds cannot be employed for the treatment of diffuse toxic goiter in Teheran and perhaps in other areas of iodine deficiency. The effective low dose treatment with antithyroid drugs during pregnancy minimizes the chance of adverse reactions in mother and fetus.

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THE EFFECTS OF DIFFERENT TYPES OF OUTPUT PULSES OF STIMULATORS ON ELECTROACUPUNCTURE AND TRANSCUTANEOUS NERVE STIMULATION INDUCED ANALGESIA. Motamedia, F., Mahaheji, H., and Moradi, A. A., Department of Physiolgoy, Shahid Beheshti Medical Science University, Teheran, Iran.

Analgesia could be made by electrical stimulation of a specific area of the body through insertion of needle electrodes into the skin. Stimulations could be applied by two ways; 1) Electro-Acupuncture (EA) with low frequency and high voltage pulses that stimulate the smaller diameter nerve fibers; 2) Transcutaneous Nerve Stimulation (TNS) with high frequency and low voltage pulses that cause stimulation of larger diameter fibers. The objective of this project is to recognize the best output pulse wave form which could produce analgesia and then design a stimulator with best standardized output pulse. For our experiments we used rat's tail immersion technique and the time of tail removal from hot water (52 C) was measured (2.5-5 sec) and then the electrical stimulations were given for 30 minutes and the time of tail removal was measured again. The wave forms were single and double square wave, trapezoid, saw tooth, and sinusoidal with different durations. With each wave form both stimulus conditions of EA and TNS were tested. Our results show that the single and double square wave with EA stimulus condition (2-5 Hz and 1-2 volts) will produce 50% analgesia while this wave form with TNs condition (80 Hz and 0.5 volt) did not have any analgesic effect. No analgesic effect was seen using trapezoid wave form. On the other hand, the sinusoidal wave form on both EA and TNS stimulus conditions produced 50% analgesic effect and finally the analgesic effect of saw tooth wave form in (EA) was 200% and in (TNS) was 100%. Another measured parameter was the after effect of stimulation i.e. the time that the analgesic effect was effective in the animal. In the single and double square wave it was between 15-20 minutes but in saw tooth wave form was more than two hours. Our results show that the most efficient wave form is the saw tooth wave form with electro-accupuncture stimulus condition.

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IMPORTANT CONTRIBUTIONS OF EARLY MUSLIM PERIOD TO MEDICAL SCIENCE. M. G. Muazzam, F.R.C. Path., Ibn Sina Laboratories and Naima Muazzam, M.B.B.S., Medical College, Dhaka, Bangladesh.

Muslims dominated the medical science for eight centuries (8th-15th). In this paper some of the major contributions of 33 eminent physicians of the early Muslim Period are presented, of whom the following have everlasting fame: Al-Kindi (810-873), Ali bin Rabban (810-850), Al-Razi (841-926), Ali ibn Abbas (d. 994), Abul Quasem (936-1013), Ibn al-Haitham (965-1039), Al-Biruni (973-1050), Ismail ad-Jurjani (d.c 1040), Ibn Sina (980-1037), Ibn Zuhr (1094-1162), Ibn Rushd (1126-1196). Imam Fakhruddin al-Razi (1140-1209), Abdul Latif (1162-1231), Ibn al-Baiter (d. 1248), Ibn al-Qifti (1172-1248), Ibn abi Usaibia (1203-1270), Ibn al-Nafis (1208-1288), Ibn al-Khatima (d. 1369), Ibn al-Khatib (1313-1374), Haji Pasha (d. 1417) and Baha al-Dawla (d. 1507). The contributions of the Muslim Period have been arranged subject-wise, viz: Anatomy, Physiology, Pharmacology, Pathology, and Microbiology, Medicine, Opthalmology, Surgery-general and special e.g. Obstetrics, Osteology, Ear-Nose-Throat, etc. and miscellaneous subjects.

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ETIOPATHOGENESIS OF CORONARY ARTERY DISEASE. J. Qazi, M.D., State University of New York, Buffalo, New York.

In the U.S., diseases of the heart and blood vessels are responsible for killing more people each year than all other causes of death combined. By far the great majority of all cardiac diseases is related to myocardial ischemia, a condition arising when blood supply to a region of the heart muscle is inadequate to meet its metabolic oxygen requirements. The major manifestation of the ischemic heart disease (IHD) is angina pectoris and myocardial infarction. In addition many arrhythmic states, including the sudden death syndrome, and heart failure can result from coronary artery disease. The vast majority of IHD is secondary to disorders of the coronary vasculature and foremost among these is the arteriosclerotic narrowing of the coronary arteries. Therefore, the risk factors associated with IHD are substantially the same as those for development of arteriosclerosis. From a clinical standpoint it is useful to divide these risk factors into non-modifiable and modifiable risk factors. Among the first group are age, sex, and heredity while the modifiable risk factors are hypertension, hyperlipidemia, cigarette smoking, glucose intolerance, obesity, sedentary lifestyle, and excessive psychological stress. Atherosclerosis is characterized by formation of lipid-rich plaques within the inner linings, or intima, of the large to medium sized arteries. One necessary condition for atherogenesis appears to be significant plasma levels of cholesterol-bearing LDL. These lipoproteins may infiltrate the arterial intima at points of epithelial injury, setting up a local degenerative process marked by platelet accumulation, smooth muscle cell proliferation and increased lipid infiltration leading to plaque formation. These plaques can severely limit or even obliterate the lumen of the artery and also become focus for lethal thrombus formation.

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PULMONARY COMPLICATIONS IN CHEMICALLY INJURED PATIENTS. M.R. Masjedi, M.D., M.R. Anaraki, M.D., M. Bahadori, M.D., H. Sohrabpour, M.D., G. Sohaleh, Ph.D. and M.H. Ali-Mohammadi, Ph.D., I. Komeini, Sina Medical, Labafi-Nejad Medical Center and Pasteur Institute, Teheran, Iran.

In the past three years, many chemically injured patients have been admitted. In order to investigate the nature of their pulmonary complications, many of these patients were examined, and thirty of them with respiratory symptoms related to mustard gas were followed up. Follow up investigations included complete history and physical examination, chest x-rays, spirometric studies, fiberoptic bronchoscopy with bonchoalveolar lavage (BAL) and transbronchial lung biopsy (TBLB). The initial results of this study reveals obstructive and restrictive lung disease due to certain pathological changes. We conclude that pulmonary complications of mustard gas are serious and cause a high degree of morbidity and unfortunately are almost untreatable.

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DIASTOLIC FUNCTION IN CARDIOMYOPATHY. F. Ziady, M.D. and D. Raidis, M.D., Department of Medicine, King Faisal Specialist Hospital and Research Centre, Riyadh, Saudi Arabia.

The study of diastolic left ventricular function (DF) in cardiomyopathy is as important as that of systolic function. In this report, the DF was studied in a group of various forms of cardiomyopathy using non-invasive and invasive methods. ECHO was the non-invasive method employed. Early and end diastolic pressure and volume, as well as instantaneous pressure-volume relationships, were recorded. Four types of cardiomyopathy were studied: hypertrophic cardiomyopathy (HC), dilated cardiomyopathy (DC), primary restrictive cardiomyopathy (RC), and amyloid heart disease (AHD). The left ventricle is stiff all through diastole in HC with diminished compliance. In RC the left ventricle is normal in early diastole with increasing stiffness toward the end of diastole. This difference in characteristic is reflected by high early diastolic pressure in HC, with normal early diastolic pressure in RC. The early and end diastolic volume in both conditions are similar. In patients with DC, the behavior is a mixture of both normal and abnormal compliance. In AHD the left ventricle is stiff but with larger volume than normal. The DF bears a relationship both direct and indirect to the prognosis and treatment in those conditions.

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TREATMENT OF PROLACTINOMAS IN MEN WITH BROMOCRYPTINE. F. Azizi, M.D., Shaheed Beheshti University of Medical Science, Tehran, Iran.

Prolactinomas are less common in men in whom hyperprolactinemia is often associated with macroadenomas with extension outside of sella turcica. Fifteen men, aged 25 to 46, with main complaints of decreased libido and impotence were studied. Mean serum prolactin and testosterone were 5078 $\pm$ 6491 (N: 100-450 mu/l) and 209 $\pm$ 118 (N: 300-1200 ng/dl) respectively. Serum FSH and LH were subnormal in four and three men respectively. In seven men their sperm count was below 30 million per ml. There were radiologic evidences of macroadenomas in six men. Treatment with bromocyptine, 7.5 to 15 mg daily reduced serum prolactin and increased serum serum testosterone (244 $\pm$ 167 mu/l and 426 $\pm$ 136 ng/dl respectively; both $P < 0.001$, compared to pretreatment values). Libido and potency improved and five of six infertile men attained fertility. Treatment with maintainence doses of bromocryptine has maintained normal serum prolactin in all subjects.

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EVALUATION OF CERTAIN HORMONES AND BLOOD CONSTITUENTS DURING ISLAMIC FASTING MONTH. F. Azizi, M.D. and H. Amir Rasouli, M.D., Shaheed Beheshti University of Medical Sciences, Teheran, Iran.

Serum levels of glucose, bilirubin, calcium, phosphorus, protein, albumin, FSH, LH, testosterone, prolactin, TSH, T4, T3, and T3 uptake, as well as prolactin and TSH responses to TRH were evaluated in a group of nine healthy men before and on the 10th, 20th, and 29th days of Ramadan. Mean body weight decreased from 65.4 $\pm$ 9.1 to 61.6 $\pm$ 9.0 kg at 29th day. Serum glucose decreased from 82 $\pm$ 4 to 69 $\pm$ 4 mg/dl on the 10th day, and increased thereafter (76 $\pm$ 3 and 84 $\pm$ 5 on the 20th and 29th days of fasting respectively). Serum bilirubin increased from 0.56 $\pm$ 0.17 to 1.43 $\pm$ .52 mg/dl on the 10th day, and decreased thereafter (1.1 $\pm$ 0.4 on the 20th and 29th days). All changes returned to basal values four weeks after fasting. There were no significant changes in serum levels of Ca, P, protein, albumin, and any of measured hormones. Prolactin and TSH responses to TRH were also unaltered. We conclude that: 1) intermittent abstinence from food and drink for 17 hours a day for 29 days does not alter male reproductive hormones, hypothalamic-pituitary-thyroid axis or peripheral metabolism of thyroid hormones and 2) physicians caring for Muslims should be aware of changes of glucose and bilirubin during Ramadan.

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GLOMERULAR DISEASES. Gh. Hashemi, M.D., Z. Karamizadeh, M.D., Z. Tabei, M.D., Nemazee Hospital, Shiraz, Iran.

Clinical, pathological and response to treatment of eighty patients aged 1-15 years of Southern Iranian children with different glomerular diseases over the last ten years are included in this study. All except a few with renal failure had a classical picture of nephrotic syndrome (hypoalbuminemia, proteinuria and edema). All had kidney biopsy with light microscopy and few with immunoflourescence examination. Hematuria plus proteinuria was observed in 70 percent, isolated proteinuria in 25 percent and isolated hematuria in 5 percent. Pathologic findings were as Mesangial Proliferative Glomerulonephritis (Mes PGN) in 33.7%, focal glomerulosclerosis (FGS) in 20%, membranous glomerulopathy (MGN) in 13.7%, membrano proliferative glomerulonephritis (MPGN) and rapid progressive glomerulonephritis (RPGN) each in 11.2%. The best results with immunosuppressive therapy were obtained in cases with Mes PGN however the over all response was 23.75%. In conclusion, comparing our study to reports from Western countries and India, the rate of Mes PGN has greater frequency and rate of MPGN has the least frequency. The response to combination therapy of Prednisolone and immunosuppressive drugs in Mes PGN is the best.

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HOSPITALS AND MEDICAL SERVICES IN ISLAMIC MEDICINE. A.M. Dajani, Faculty of Medicine, Jordan University, Amman, Jordan.

Before the dawn of Islam the Arabs used to treat their patients with herbs, plants and cauterization, etc., without any scientific background. When Islam came they realized the importance of medicine and they devoted a lot of their time and effort to learn its principles and practices from nations which preceded them in the process of civilization, and then they added their contribution from their own knowledge and experience. The process of building hospitals passed through different stages starting with the tent and ending with the most sophisticated and well equipped and staffed hospitals which flourished all along the great cities of the Islamic Empire. Those hospitals were either stationary or mobile and they rendered services free of charge to all citizens irrespective of their creed or race. It was during the Islamic golden ages that the idea of ambulance services, prison and school medical services were introduced, and out-patient clinics were built. Dispensaries were also part of those services which were made available and were carefully controlled. The article also includes the role played by Moslem women in the fields of treatment and nursing.

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METABOLIC ACIDOSIS AND ITS INFLUENCE ON THE CARDIOVASCULAR SYSTEM. Ali R. Asgari, M.D., Gholam A. Dehghani, M.D., Department of Physiology, Shiraz Medical School, Teheran, Iran.

The effect of acute metabolic acidosis on the cardiovascular system was studied in 12 anesthetized artifically ventilated open-chested cats. Femoral artery and veins were cannulated for the measurement of arterial and central venous pressures and infusion of drugs as needed. An electromagnetic flow probe was placed about the root of aorta to record aortic flow. The arterial O_2 and CO_2 tension was kept at the normal physiologic range. Acute metabolic acidosis (pH 7.03±0.01) was produced by slow intravenous infusion of one molar lactic acid (0.7 ml/min) for 30 minutes and the results were recorded for 70 minutes. To exclude the effect of volume expansion, normal saline was injected intravenously in the control group in the same rate as the acidotic group and variations of cardiovascular parameters were compared statistically. The total peripheral resistance, and mean arterial and diastolic blood pressures did not change statistically when compared to the control group. Aortic flow increased in the control group but did not change in acidosis. Metabolic acidosis did decrease the heart rate significantly.

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RELATIVE MERITS OF IMAGING TECHNIQUES IN THE MANAGEMENT OF ECHINOCOCCOSIS OF LUNG AND LIVER. Farrokh Saidi, M.D., F.A.C.S., F.R.C.S., Department of Surgery, Shahid Beheshti University of Medical Sciences, Teheran, Iran.

A review of 46 cases of hydatid cysts of the lung and 64 cases of hydatid cysts of the liver was carried out to assess the dignostic value of different non-invasive imaging techniques in the management of echinococcal disease. Methods available were standard radiological techniques, radionuclide scanning, ultrasonography and CT scanning. Criteria used in assessing their relative merits were accuracy of diagnosis, change in the clinical approach brought by the method used, and general cost-benefit analysis. For lung hydatids standard two view x-ray films of chest gave an error rate of 8.6% but did not materially affect the operative approach or the final outcome. CT scanning used in four instances did not alter the diagnosis; but confirmed the clinical impression of a ruptured cyst in one case, prompting surgical treatment. For liver cysts standard radiological examination was useful in showing calcification and thus obviating the need for any surgical intervention; or revealing significant elevation of the hemidiaphragm to direct the surgical approach. Sonography, as the sole diagnostic imaging technique, could not be relied upon. Radionuclide scanning had the lowest rate of diagnostic accuracy, while CT scanning had the additional value of differentiating ruptured from unruptured cysts. Results obtained can only be evaluated in the light of clinical setting in an area where echnicoccal disease is endemic.

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OSSEOINTEGRATION IN CLINICAL DENTISTRY. S.H. Chadda, D.D.S., New York College of Dentistry, New York, New York.

Human beings have been endeavoring for centuries to replace missing teeth in such a way that provides excellent function, pleasing esthetics and comfort. A few teeth can be replaced by fixed bridgework; however, where many or all teeth are missing, the problems become complex. Implants introduced in the 1950's appeared to be a solution to the problem. These implants functioned for a time but usually become surrounded by a fibrous connective tissue membrane that led to mobility, bone loss and finally loss of the implant. The latest increase in the interest of dental implants began with the introduction of "Osseointegrated implants" by Dr. Branemark of Sweden, an orthopaedic surgeon. He explains that the basic prerequisite for establishing true and lasting tissue integration of a non-biologic prothesis with minimal risk of adverse local or general tissue reactions consists of a detailed understanding of the response behavior of highly differentialed hard and soft tissues to surgical preparation of recipient site and installation of the prothesis, as well as the long-term tissue adaptation to functional demands on the anchorage unit. In this paper we will try to cover the surgical and prosthetic protocol of the Osseointegrated implants.

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THE EFFECT OF RESPIRATORY ACIDOSIS-HYPERCAPNIA ON THE CARDIOVASCULAR SYSTEM. A. Khoshbaten and G.A. Dehghani, Department of Physiology, Shiraz Medical School, Teheran, Iran.

The different effects of hypercapnic-acidosis and hypercapnia with controlled arterial blood pH on the cardiovascular system are studied in two groups of anesthetized artifically ventilated open-chested cats. Femoral artery and veins were cannulated for the measurement of arterial and central venous blood pressures. After thoracotomy an electromagnetic flow probe was placed about the root of the aorta to measure the aortic flow. In Group I the animal was exposed to 12% CO_2 and 20% O_2 and hypercapnic-acidosis was produced for 20 minutes. In Group II arterial blood pH was kept constant by intravenous injection of THAM (0.5 mM, Kg^{-1} min^{-1}) and ventilated as above, and hypercapnia with normal pH was induced for 20 minutes. The results of the two groups compared with their values during normocapnia and assumed statistically significant when the p value was less than 0.05. The results of this study show a significant increase in heart rate during hypercapnic-acidosis but the heart rate decreased in Group II. Mean arterial pressure increased significantly in Group I but did not change in Group II. Aortic blood flow and stroke volume increased in both groups, but the calculated total peripheral resistance decreased significantly. In conclusion, the results of this investigation show that the cardiovascular system of the anesthetized cat responds to hypercapnic-acidosis and hypercapnia with normal arterial pH differently.

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The GARREN-EDWARDS GASTRIC BUBBLE. Mushtaq Shah, M.D., Cheverly, Maryland, U.S.A.

Obesity (< 20% body wt.) represents a significant health risk. It is estimated that there are 34 million obese men and women in the U.S.A. Recently a new device (gastric bubble), used in conjunction with nutritional counseling and behavior modification, has been tried for weight reduction. The bubble is a soft, plastic device which is inserted into the stomach and then inflated giving a sensation of fullness. The treatment can be reversed, should the patient develop any adverse reactions. The patient can engage in normal activities, eat nutritiously, while following a low caloric diet. The gastric bubble reduces the volume of the stomach, giving the patient a full feeling. The bubble is actually designed to float free in the stomach. Because it is cylindrical when inflated, the size and dimension resist exit from the stomach. In a survey of 59 patients treated, 85% reported that the implantation process was comfortable, 95% reported the bubble was comfortable while in the stomach, 97% reported their appetite decreased while the bubble was in place, and 90% reported their weight loss was easier than the past experience. Because the gastric bubble is new, ungoing clinical investigations are being done to determine long term weight loss results. The procedure of implantation will be presented.

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THE STUDY OF MYOELECTRIC COMMANDS OF HAND FAST MOVEMENTS IN NORMAL SUBJECTS AND IN CEREBELLAR PATIENTS. S.A. Eftekhar, M.D., F. Motamedi, M.D., M. Nahvi, M.D., Department of Physiology, Shahid Beheshti Medical Sciences University, Teheran, Iran.

In order to understand more about the role of the cerebellum in control of movements, EMG patterns from normal subjects were compared to those of cerebellar patients. In our experiments the Rebound Phenomenon which is one of the symptoms of cerebellar syndrome was investigated. The subject's hand was kept against a resistant force and suddenly the force was removed and flexion of elbow started. The parameters that were measured were velocity, acceleration, torque of inertia and EMG activity of Biceps and Triceps muscles during elbow flexion. Our results on Rebound phenomenon show that during the fast movement of the hand (elbow flexion) in normal subjects, both agonist and antagonist muscles will alternatively and reciprocally activate and deactivate. The EMG recording of these muscles show a period of early silence of 50 msec in agonist muscle (biceps) during which the antagonist muscle (triceps) is active. After this period, the agonist stop or will be reduced and again the antagonist muscle will be active. In contrast to these myoelectric patterns, the cerebellar patient's EMG activity were completely different from the normal subjects with both muscles being active during elbow flexion. Also the recorded acceleration curves in cerebellar patients were significantly different from normal subjects. While the torque of inertia in normal subjects appeared 50-100 msec after the start of movement, in cerebella patients the torgue of inertia appeared in a longer time i.e. 150 msec after the start of movement. Our results show the controlling effect of cerebellum on both groups of muscles.

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STUDY OF ESOPHAGEAL MOTILITY DISORDERS. M.S. Khuroo, M.D., S.A. Zargar, M.D., Dept. of Gastroenterology, Sher-i-Kashmir Institute of Medical Sciences, Soura, Srinagar (Kashmir), India.

Esophageal manometry is an excellent tool for diagnosis of various motility disorders of the esophagus. Esophageal manometry was performed on 75 patients (48 males and 27 females) with suspected primary and secondary esophageal motility disorders, by a standard method using Narco Motility System with infusion pump. Twenty five patients had primary motility disorders of the esophagus including Acklasia (6), diffuse esophageal spasm (12), hypertensive LES (4), nut cracker esophagus (1) and crico-pharyngeal dyskinesia (2). Eleven patients had low LESP. Abnormal manometric findings were seen in 3 of 4 cases of scleroderma and in one patient of CREST. Sublingual Nafedipine (10-20mgs) and Nitrites (10mgs) were shown to affect the amplitude of contractions in the body and also effectively decrease LES pressure in normal healthy controls and patients with Achlasia.

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THE EFFECT OF SHORT STAY AT 300 METERS BELOW SEA LEVEL (DEAD SEA AREA) ON PLATELETS AND SEVERAL BLOOD COAGULATION FACTORS AND NATURAL ANTICOAGULANTS. N.A. Sliman and A.S. Awidi, Department of Internal Medicine, Faculty of Medicine, University of Jordan, Amman, Jordan.

Citrated blood samples were collected from thirteen healthy non-smoker male students, 21-22 years of age, on Day 0 in Amman (Altitude 774 meters above sea level) before they left to stay near Dead Sea area in Jordan Valley (Altitude 300 meters below sea level) for a three month agricultural course. Similar samples were collected in Jordan Valley on Days 3, 5 and 90. Platelet count and aggregation were done within 1-2 hours of blood collection. Plasma was separated and frozen at the same time and all samples were tested later for Fibrinogen, Factor VIII:VWF (F VIII:VWF), Anti-Thrombin III (AT III) and Protein C (immunological and functional assay). There were no significatn changes regarding platelets count or aggregation, AT III or F VIII:VWF, while fibrinogen showed a significant increase at day 90 (P .002). Protein C (both immunological and functional assays) showed a significant rise at Day 90 (P .0001 and .033, respectively). It seems that a 3 month stay at 300 meters below sea level has influence on blood levels of Protein C and Fibrinogen, but not on platelet count or platelet aggregation or blood levels of F VIII:VWF or AT III, the physiological significance of which remains to be studied.

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PHSYICAL GROWTH IN TEHERAN. F. Azizi, M.D., Shaheed Beheshti University of Medical Sciences, Eveen, Tehran, Iran.

In order to develop the first growth chart of average height (ht) and weight (wt) and to determine the occurence of first signs of puberty in school children in Teheran, we conducted a cross-sectional study in 606 girls and 770 boys. The mean yearly increase in ht was 3 to 7 cm for girls and 5 to 8 cm for boys. The mean yearly increase in wt was 2 kg from age 6 to 11 and 5 kg thereafter in boys. Compared to growth charts in the U.S., 50th percentile curves of Teheranian girls and boys were superimposed on the 25th percentile curves of Americans at ages 13 to 15. In girls, the first sign of breast development occurred from 6.5 to 12.1 (mean 10.1±1.1 yr), the first appearance of pubic hair occurred from 6.7 to 15.1 (mean 10.2±1.0 yr), and menarche occurred from 10.4 to 15.3 (mean 12.5±0.8). In boys, the first appearance of pubic hair occurred from 6.9 to 13.1 (mean 9.3±1.0 yr) and the first development of genital growth occurred from 6.8 to 14.7 (mean 9.8±1.0 yr). These results indicate that the first signs of puberty appear much earlier in Teheranian girls and boys than in their western counterparts.

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RELATION OF SERUM LIPID AND LIPOPROTEIN CONCENTRATION IN MYOCARDIAL INFARCTION. H. Amirrasoul, S. Aizaz Abedi, M. Sandoughchin, Department of Clinical Pathology, Taleghant Medical Center, University of Shahid Beheshti, Eveen, Teheran, Iran.

We evaluated the concentration of serum lipids and lipoproteins in 62 patients with myocardial infarction and a control group of 96 normal healthy volunteers. Serum cholesterol, triglycerides, low density lipoproteins (LDL), very low density lipoproteins (VLDL), high density lipoproteins (HDL) were measured by the precipitation and electrophoretic techniques. In patients with myocardial infarction we found high levels of serum LDL and low HDL, while these measurements were normal in the control group, and this finding was also present in those patients with normal cholesterol and myocardial infarction. We conclude that a high serum LDL level along with a low HDL level represents a significant risk factor for myocardial infarction in IRAN.

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DELTA HEPATITIS IN THE FOOTHILLS OF THE HIMALAYAS IN SOUTH KASHMIR. M.S. Khuroo, M.D., S.A. Zargar, Department of Gastroenterology, Institute of Medical Sciences, Soura, Srinagar, Kashmir, India

We have identified delta hepatitis as an etiologic cause of an outbreak of hepatitis in an endemic area for hepatitis B in South Kashmir, India. Thirty five of 51 patients with jaundice were hepatitis B virus carriers. Twenty-two of 24 patients tested had delta hepatitis (delta super-infection). Two of the 3 patients with acute hepatitis B were coinfected with delta hepatitis. Thirty six asymptomatic household contacts of delta hepatitis patients were assessed. Six were hepatitis B virus carriers and 3 with delta coinfection. The disease occured in adults with mean age of 28.±10.5 yr (range 10-56 yr) and was equally distributed in both the sexes. Three patients with delta superinfection presented with fulminant hepatic failure with fatal outcome. All the patients with non-fulminant delta hepatitis showed apparent clinical recovery. However, in the subsequent follow up at 4 years, 7 patients with delta superinfection had evidence of chronic hepatitis. One of these 7 patients died due to progressive chronic liver disease.

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POST-MORTEM EXAMINATION IN MUSLIM COUNTRIES. M. G. Muazzam, F.R.C. Path., Ibn Sina Laboratories, Dhaka, Bangladesh.

Progress of medical science in any country depends largely on post-mortem examination. In spite of excellent clinical acumen and reliable laboratory facilities, there are many occasions when the diagnosis remains doubtful or even unknown. One post-mortem (autopsy) examination if properly done and studied by the pathologist and clinician concerned, may eliminate many mistakes later. But unfortunately, post-mortem is very difficult in the developing countries specially, the Muslim countries of Asia and Africa. In this paper the importance of post-mortem examinations followed by regular clinico-pathological conferences (morbidity and mortality seminars) is emphasized. Islam is often blamed for lack of post-mortem examinations in the Muslim countries, but this is unfortunate and wrong. In the present paper suggestions of ways and means to defuse the so-called religious objections and to popularize the clinical autopsies in Muslim societies are provided. It is further suggested that the clinicians may motivate the people and the attendants of their patients if they explain to them that the purpose of the post-mortem examinations is to raise the standard of diagnosis and treamtment.

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THE MYTH OF ST-SEGMENT & NITRATES. Mahmood Khan, M.D., Mudassir Ali, M.D., Aftab A. Khalil, M.D., Tariq Irani, M.D., Naseem Qureshi, M.D., and M. Sharif Chaudhry, M.D.

Feil & Siegal came across a chance historic observation of ST-Segment shift association with myocardial hypoxia. This led to an endless chain of studies by experimental physiologists, pathologists, clinicians and pharmacologists centering their energies on this small segment of myocardial electrical activity regarding its shift from the baseline. These studies were the basis for further research in the arena of coronary artery disease. ST-Segment deviation to myocardial hypoxia/injury below the iso-electric line is conventionally recognized as myocardial injury. Oral nitrates have been prescribed for a long time for the relief of ischemic myocardial pain. It is imagined that the relief of pain should be associated with normalizing of ST-Segment to iso-electric line but results of some studies do not bear that out. Thirty-six cases with myocardial infarction were subjected to submaximal exercise tolerance test 10 days after the episode. They were resubmitted to another submaximal exercise tolerance test 24 hours after oral Nitrates. The pre & post Nitrate studies were compared with seventeen patients with simple angina.

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UPDATE IN CARDIAC PACING. F.A. Pirzada, M.D., Departments of Cardiology, Malden & Boston City Hospitals, Boston University School of Medicine, Boston, Massachusetts.

Permanent cardiac pacing in recent years has undergone a great amount of change. From single unit pacing in ventricle, dual chamber pacing in the atrium and ventricle has become the routine. Dual chamber pacing simulates the normal physiological melieu, unlike single chamber pacing which causes decrease in cardiac output by loss of atrial mechanism and retrograde stimulation of the atrium. With the advent of dual chamber pacing, follow-up of these patients has become complicated. Arrhythmias due to retrograde stimulation of the atrium need to be recognized and prevented by appropriate programming of the pacing units. Recognition of proper functioning of the units need a precise understanding of refractory periods. The newer generation of pacing units will be utilizing other sensor technology, which will use physical activity, change in body temperature, pH and oxygen tension to increase rate and thus improve cardiac output.

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THE SPECTRUM OF GASTROINTESTINAL TRACT MALIGNANCY IN IRAN. M. Ali, M.D. and M. R. Zali, M.D., Taleghani Medical Center, Shahid Beheshti University of Medicine, Tehran, Iran.

Five-hundred and sixty-five cases of malignant gastrointestinal tract (GI) tumors were reviewed. These were the total number of GI cancer patients operated or biopsied at this center. These patients were referred mostly from north Iran. In contrast to prior studies, carcinoma of the stomach was the most common 177/565 (34%). Carcinoma of the esophagus was the second most common (21%). Carcinoma of the colon comprised 15% and primary and metastatic tumors of the liver comprised 20%. Lymphoma of the small bowel comprised 5% of cases, while carcinoma of the pancreas constituted 2.4% of the cases. The aetiological factors leading to the high incidence of upper GI tract cancer in Iran will be discussed.

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DIARRHEA MORTALITY AND MORBIDITY IN ISLAMIC REPUBLIC OF IRAN. H. Malek Afzali, M.D., M.P.H. School of Public Health, Teheran, Iran.

A survey of 10% of the urban and rual population in Iran in 1984, revealed:

1 - The rate of mortality due to diarrhea in children under 5 years is as high as 48 and 24 per 10000 in rural and urban areas respectively. In other words, every year 34,000 children under 5 years of age die because of diarrheal diseases. This figure represents 25% of the total deaths in this age group.

2 - The occurence of diarrhea averaged 7.2 epidsodes in this age group. This should be corrected by 3 to 4 times, as the survey was made during the second half of the month of shanrivar (4-19 September), the period that the disease reaches its peak of prevalence.

3 - Not more than 25% of cases receive ORS or other similar solution while 7% require intravenous serotherapy.

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CARDIAC PACING IN THE MANAGEMENT OF CARDIAC ARRHYTHMIAS IN ISCHEMIC HEART DISEASE. A. Pirzada, M.D., Maiden Hospital, Maiden, Ma.

Guidelines for temporary pacing can vary according to the clinical presentation in individual patients. Temporary pacing is largely used for bradyarrhythmias in patients with acute myocardial infarctions. Inferior and anterior wall myocardial infarctions are two areas of special clinical importance. Inferior myocardial infarcts are generally not seen in association with bundle branch blocks, but require temporary pacing when associated with high grade atrioventricular block in a setting of a slow escape mechanism. Anterior myocardial infarcts can be associated with high grade antrioventricular blocks and bundle branch blocks. In the latter setting, prophylactic pacing is recommended prior to development of complete heart block, as the escape mechanism is generally quite slow and can occur suddenly without warning leading to hemodynamic catastrophe. In a setting of an acute myocardial infarction and bifasicular block followed by complete heart block, uninterrupted pacing becomes the therapy of choice to prevent mortality due to bradyarrhythmias.