

CORRELATION BETWEEN THE ENZYME LEVELS AND THE LESIONS IN EXPERIMENTALLY INFECTED MICE WITH ENTAMOEBIA HISTOLYTICA. GS Quadri, MM Baig, CM Habibullah, Department of Gastroenterology, Osmania General Hospital, Hyderabad, India.

The sequential development of cecal and hepatic lesions were studied by oral feeding of the cysts of *Entamoeba histolytica* to mice strain BALB/C. The strain M OMC/88 was isolated by sucrose gradient technique. The animals were immunosuppressed by azathioprine and equal number of untreated animals served as controls. The grading of the lesions was by the Neal Caecal Score method at autopsy on day 3rd, 5th, 7th, 14th and 21st. The enzymes lactic dehydrogenase and arginase were estimated in tissues, i.e., small and large intestine, cecum and liver on above mentioned days. Significantly decreased levels of enzymes were observed. There was good correlation between the grading of the lesions and the enzymes.

ORNITHINE CARBAMYLE TRANSFERASE ACTIVITY IN ACUTE VIRAL HEPATITIS. MM Ali Baig,* AN Habibullah, S M Habibullah, and CM Habibullah, Department of Gastroenterology, Osmania General Hospital, Hyderabad, India.

A study has been carried out on ornithine carbamyl transferase (OCT) in acute viral hepatitis to see its activity during acute viral infection. Thirty-two cases of acute viral hepatitis screened by ELISA and positive to HBs Ag were selected for this study. The liver function tests SGOT, SGPT, and serum bilirubin were also included in this study for controls. Ornithine carbamyl transferase was estimated according to the method described by Vaclav Kulhanek (1964). The mean level of OCT was (mean \pm SD) 5.08 ± 1.85 u mol/hr/l of serum in patients and 4.50 ± 1.43 u mol/hr/l of serum in controls. The difference between the two levels was not statistically significant. The number of cases selected for this study were inadequate to show a constant increase or decrease in the activity. Thus it can be concluded that there may be a slight but insignificant increase in OCT level during acute viral hepatitis.

HEPATITIS B VIRUS IN HYDERABAD POPULATION. N Arshya, CM Habibullah, Department of Gastroenterology, Osmania General Hospital, Hyderabad, India.

The study was undertaken to determine the HBs Ag carrier rate in healthy and liver diseased populations. Three hundred and eighty-six patients with various hepatic diseases (i.e., viral hepatitis with pregnancy, viral hepatitis with diabetes mellitus, fulminant hepatic failure, subacute hepatic failure, chronic hepatitis, cirrhosis and hepatoma) were screened. Three hundred volunteers and professional blood donors, and 347 hospital staff (doctors, nurses, technicians, wardboys) were also screened for HBs Ag. HBs Ag was carried out by ELISA. The HBs Ag carrier rate in volunteer donors was 7.4% and in professional donors it was 16%. In hospital staff it was found to be 17.27%. The carrier rate in viral hepatitis with pregnancy, viral hepatitis with diabetes mellitus, fulminant hepatic failure, subacute hepatic failure, chronic hepatitis, cirrhosis and hepatoma was 2.6%, 4.6%, 5.7%, 3.1%, 11.9%, 21.8% and 5.7% respectively. The HBs Ag carrier rate in 220 renal dialysis patients was 33.6%.

CURRENT CONCEPTS IN WEIGHT MANAGEMENT. S Athar, MD, Department of Medicine and Endocrinology, Indiana University School of Medicine and St. Vincent Hospital, Indianapolis, Indiana.

Obesity is a major health problem for adults and children in the U.S.A. Obesity also affects other medical conditions, i.e., diabetes, hypertension, coronary heart disease, osteoarthritis and gallstones. Most cases of obesity (95%) are related to exogenous dietary factors. Weight loss regimes are usually ineffective in achieving a long term weight loss.

In this presentation factors leading to exogenous obesity, including food attitudes, eating habits, environment, stress and food choices, are analyzed. Methods to achieve durable weight loss to include various diets, exercise, anorexic agents and behavior modification are presented.

THE EFFECTS OF MALNUTRITION AND RENUTRITION ON VARIABLES OF HOST DEFENSE. S Fakhir, MMA Faridi, A Rattan.* Department of Pediatrics and Microbiology,* JN Medical College, Aligarh Muslim University, Aligarh, India.

The present study included 100 children with protein energy malnutrition and 25 age-matched healthy children as controls. Cell mediated immunity (CMI) and humoral immunity (HI) were assessed using standard techniques. CMI was evaluated by enumerating both "early" and "late" T cells, PPD, and DNCB delayed cutaneous hypersensitivity. B cell count and serum immunoglobulins (IgG,M,A) were estimated to determine HI. Forty children were followed up after providing them with high protein and calorie diets for 4-6 weeks. None of the severely malnourished children showed positive Mantoux test while DNCB skin hypersensitivity was depressed significantly ($P < 0.001$) in malnourished children. Both "early" and "late" T cells were depressed significantly ($P < 0.001$) in severely malnourished children. B cell counts and all the three major types of immunoglobulins were found to be raised significantly ($P < 0.001$) in marasmus, marasmic kwashiorkor, and kwashiorkor. After renutrition for 4-6 weeks, CMI returned to normal but B cells as well as serum IgG remained elevated.

ACUTE PHASE REACTANTS (C3 AND CRP) IN TUBERCULOSIS IN INDICATOR OF ACTIVITY. P Ahmad*, G. Bajaj, and A Rattan, Department of Paediatrics and Microbiology, JN Medical College, Aligarh, India.

The present study was undertaken with the aim to study complement (C3) and C. Reactive Protein (CRP) in various types of childhood tuberculosis, and to correlate their values with the activity of the disease. One hundred children attending pediatrics services at JN Medical College Hospital, AMU, Aligarh were studied. There were 30 healthy, age and sex matched control children. They were subjected to hemogram, Mx Test/BCG Test, chest x-ray and LP (whenever needed). C3 and CRP was estimated by radial immuno-diffusion method. Seventy percent of the children had pulmonary tuberculosis and 24% of the children had meningitis. CRP and C3 values were significantly raised ($P < .05$) in all types of tuberculosis as compared to the controls. The positivity rate of CRP was 95% higher than C3 and hence is a more sensitive indicator of activity. Repeat measurements after 1 and 3-6 months of anti-tubercular therapy showed a significant decline in these values, along with clinical improvement, further substantiating their value as an indicator of tuberculosis activity.

TRANSRECTAL PROSTATIC ULTRASOUND IN THE DETECTION OF EARLY CARCINOMA. J

Devkota, MD, Department of Radiology, Grim-Smith Hospital, Kirksville, Missouri.

Prostatic carcinoma is one of the leading causes of death in older men. The mortality rate from this cancer is on the rise. Early detection and management can prevent catastrophic illness from this cancer. Until recently, digital rectal examination was the only reliable noninvasive diagnostic method. With the advent of superb resolution and high frequency transducers on transrectal probes, it has become possible to delineate early pathological change in the prostate. The reliable tissue characterization, minor deviation from the normal anatomy, capsule invasion, and periprostatic vascular space can be accurately evaluated and lead to proper management. Transrectal prostatic ultrasounds were obtained in 75 men of various ages during an eight month period (September 1988-April 1989) to evaluate various symptoms. Fifty percent of the patients were not suspected to have carcinoma; the digital rectal examination was unremarkable. Out of these, 20% showed hypo- or hyperechoic masses without capsular invasion or glandular enlargement. The other 50% of the patients who had palpable nodules and enlargement of the gland were accurately confirmed by ultrasound. Both palpable and nonpalpable lesions were biopsied and proved to be malignant. The transrectal prostatic ultrasound is a patient accepted, tolerated, noninvasive, and reliable diagnostic modality to detect carcinoma in situ. It may also be used as a screening method, similar to mammography.

DERMATOMYCOSES IN A NORTH INDIAN TOWN. A Malik, A Kalam,* Departments of Microbiology and Medicine*, JN Medical College, Aligarh, India.

Two hundred and forty seven clinically suspected cases of dermatomycosis were examined for evidence of fungal infection. Direct microscopy with 20% KOH, culture on Dermatophyte Test Medium (DTM), and Sabouraud's dextrose agar were done. Dermatophytes and candida were found in 146 (59.1%) cases. Out of these, 102 were positive by both direct smear and culture, 28 were only smear positive and 16 showed growth on culture but were direct smear negative.

Out of 118 isolates, 66 were trichophytonrubrum, 25 T. mentagrophytes, 5 T. tonsurans, 3 T. violaceum, 5 microsporum gypseum, 4 epidermophyton floccosum and 10 candida albicans. Tineacorposis (45.5%) was the most prevalent clinical type. Tinea capitis was more common in children while Tinea corporis and Tinea cruris in adults. The male to female ration was 5:1. The maximum number of cases were seen between April to September, the hot and humid months of North India.

ELECTRO-OCULOGRAPHIC EVALUATION OF CEREBELLAR ATAXIAS; BASIS FOR FURTHER CLASSIFICATION. M Moonis, S Jain, A Verma, M Maheshwari, All India Institute of Medical Sciences, New Delhi, India.

Nineteen patients (9 familial; 10 sporadic) with progressive cerebellar ataxia were examined by electro-oculography (EOG). Compared to 10 normal controls, all patients demonstrated ocular motor disturbances. On the basis of EOG, 2 distinct groups could be identified. Group I had slow saccades and relatively normal pursuit; group II had normal saccades and slow pursuit. Both groups demonstrated high intra-group phenotypic identity. Between the 2 groups, age of onset and phenotype were significant differentiating features. Early age of onset, prominent eyes, orolingual fasciculations, lower facial wasting and distal limb amyotrophy characterised group I while group II patients had a later age of onset, prominent pyramidal signs and absence of orolingual fasciculations, ocular prominence and amyotrophy. Both groups were genetically heterogenous and included familial and sporadic cases. A phenotypic similarity was noted between group I and cases described under Joseph Disease.

High intra-group correlation between familial and sporadic cases for ocular motor disturbances, age of onset and phenotype suggest similar neuronal system involvement and stresses a role for factors besides inheritance in its pathogenesis. It is suggested that EOG may be an additional useful parameter in classification of cerebellar ataxias.

TO BETTER UNDERSTAND THE ROLE OF DIETARY OLIVE OIL FROM ISLAMIC PERSPECTIVE. S Hussain, Ph. D., Swift-Eckrich, Inc., Oak Brook, IL.

'Abu 'Usaid al-Ansari reported Prophet Muhammad (PBUH) as saying, "Eat olive oil and anoint yourselves with it, for it comes from a blessed tree." (Tirmidhi, ibn Majah and Darimi)

Health authorities have advised Americans to modify their diet in order to reduce the risk of heart disease and cancer. The dietary goals for the United States suggest reducing average dietary fat to 30% of total energy, reducing cholesterol to 300 mg per day, and increasing the polyunsaturated to saturated fatty acid ratio (P/S) to 1:0.

Monounsaturated fats have been the object of considerable nutritional interest as epidemiological studies have determined that people in Mediterranean countries, where the predominant oil consumed is olive oil (a highly monounsaturated oil), suffer a very low incidence of cardiovascular disease.

Methodology is urgently needed for assessment of adherence to fat-controlled diets in free-living subjects, both long term and daily, or even from meal to meal. In this respect, the Holy Quran and the Sunnah of Prophet Muhammad (PBUH) offer great promise. The aim of this undertaking is to present a survey of literature on the role of dietary olive oil from the Islamic perspective.

INNOVATIONS IN SURGICAL TRAINING. J Zikria, BS,* B Zikria, MD, Rutgers University,* Norwoods, New Jersey and Department of Surgery, Columbia University, College of Physicians and Surgeons, New York, New York.

Within the past three decades there have been considerable additions of models in technical training and audio/visual aids for the teaching of medicine. We have used surgical drill boards in which knot-tying procedures, as well as the fundamentals of surgical techniques such as incisions, their closures, repair of tendons and nerves, and intestinal and vascular anastomoses, are practiced.

Around this concept we have tried to upgrade the teaching of the art and science of surgery in accordance with the great advances made in the fields of simulated computer and audio/visual technologies. Here we see a parallel in the training of a pilot and a surgeon. As pilots are being trained in computerized simulated cockpits, we are introducing training for surgical procedures at the computer terminal. The Patient's Bill of Rights and Animal Rights Groups as well as the high cost of training facilities have made the use of simulated models and computerized simulated operative procedures the logical alternatives for surgical and medical education in the legal atmosphere of today. We are presenting the models and computerized programs developed so far in this field.

ELEVATED URINARY PEPSINOGEN: A SUBCLINICAL MARKER OF ULCER DIATHESIS.

Mahboobunnisa M. Mujahid Ali, CM Habibullah. Department of Gastroenterology, Osmania General Hospital, Hyderabad, India.

Urinary pepsinogen levels were determined to study the possible association of this marker with duodenal ulcer disease. Two hundred patients with endoscopically proven duodenal ulcer were selected for this study, as well as 70 healthy individuals of the same age group as controls. Urinary pepsinogen was estimated by using hemoglobin substrate as described by Mirsky et al (1952). The mean \pm SD level of urinary pepsinogen in the patients was 2467.57 ± 900.97 units/ml/24 hours and in the controls was 1241.06 ± 330.4 unit/ml/24 hrs. The difference between the two levels was statistically significant ($P < 0.001$). This urinary pepsinogen level can serve as a subclinical marker of ulcer diathesis.

ANTHROPOMETRY AT BIRTH IN RELATION TO MORPHOMETRIC FEATURES OF PLACENTA.

Ashraf Malik, Reder. Department of Paediatrics, JN Medical College, Aligarh Muslim University, Aligarh, India.

Two hundred mothers, their newborns, and placentae were studied to establish the relationship of placental weight and surface area of placenta with that of the weight, length, and circumference of skull at birth. A direct relationship of statistical significance was established when placental weight was compared with the weight ($r = 0.74$) and length of the newborn ($r = 0.65$) as well as the circumference of skull ($r = 0.42$). Similarly, the placental surface area when compared with these three anthropometric features, showed a significant correlation. The value of r being 0.65, 0.47, and 0.40 respectively.

CURRENT TRENDS IN HEMODIALYSIS TREATMENT. SN Asad MD, Renal Division, Nassau County Medical Center, East Meadow, NY.

There are approximately 100,000 patients on dialysis in the U.S.A. The hemodialysis techniques appear to be in a stagnant phase in comparison to other medical achievements made between 1960-1980. However, despite the lack of major breakthroughs in the management of end stage renal disease, a steady improvement in the understanding of the dialysis process and commensurate improvement in technology have occurred.

This presentation will deal with our experience of chronic dialysis patients managed over many years, and will include the prescription dialysis and management of certain long term complications such as hyperparathyroidism (HPTH), aluminum toxicity and anemia. Furthermore, the pros and cons of conventional versus nonconventional dialysis will be addressed.

The table below outlines the mean (\pm S.D) values of the laboratory tests in 100 selected patients dialyzed three times/week at our dialysis center.

	<u>PTH</u> (intact)	<u>Hct</u> %	<u>KT/U</u>	<u>BUN</u> mg%	<u>Co2</u> mEq/l	<u>Ca</u> mg%	<u>Phos</u> mg%	<u>Alk Phos</u> U/l
Mean	291.07	24.93	1.12	87.56	15.46	9.58	6.69	137.97
S.D.	360.85	4.97	0.27	16.36	3.08	0.99	2.00	137.36

The results indicate that adequate dialysis (KT/V) was prescribed in the majority of patients. They also are noted to have optimal levels of Hct (24.9%). However, secondary HPTH, hyperphosphatemia and metabolic acidosis were present in a significant number of dialysis patients.

The current strategies in the management of these abnormalities consist of administering correct prescription dialysis (KT/V), parenteral Vit D3 (1,23(OH)₂D₃), Erythropoetin (EPO) and high flux dialysis with bicarbonate dialysate. The future for dialysis patients is promising because EPO and high flux dialysis techniques will soon be widely available, which will dramatically improve both patient physical well-being and rehabilitation potential.

NEUROLOGIC COMPLICATIONS OF PROGRESSIVE SYSTEMIC SCLEROSIS. WD Ahmad, MD, Department of Medicine, VA Medical Center, Fayetteville, North Carolina.

Auto-immune diseases like Systemic Lupus Erythematosus (SLE) or Periarthritis Nodosa (PAN) are known to have well recognized neurologic complications, but Progressive Systemic Sclerosis (PSS) has been less often associated with such complications. During the last two, however, increasing number of case reports have been appearing in the Western literature describing a variety of neurologic signs and symptoms in relation to PSS.

In this paper I described three patients who suffered neurologic signs and symptoms in association with PSS. Also discussed are other neurologic problems reported in the literature, along with analysis of these cases and their autopsy findings. No attempt is made to classify them but the following neurologic disturbances will be discussed in appropriate context of the cases.

1. Cerebral signs and symptoms with or without extracranial or cranial arterial involvement
2. Diffuse peripheral neuropathy
3. Trigeminal neuropathy and its frequency in patients with PSS
4. Myopathy
5. Linear or localized scleroderma and its neurologic implications

Possible pathophysiologic mechanisms that result in disturbance of neurologic function will be discussed.

OSSEOINTEGRATION IN CLINICAL DENTISTRY. Safdar Hussain Chadda, DDS, FAGD, Department of Comprehensive Medicine, New York University, New York, NY.

Human beings have been endeavoring for centuries to replace missing teeth in such a way that provides excellent function, pleasing aesthetics and comfort. Some teeth can be replaced by fixed bridgework; however, where many or all teeth are missing, the problem becomes complex. Implants introduced in the 1950s appeared to be a solution to the problem. These implants functioned for a time, but usually became 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 for dental implants began with the introduction of "osseointegrated implants" by Dr. Branemark, an orthopaedic surgeon from Sweden. He explains that the basic prerequisite for establishing true and lasting tissue integration of a nonbiologic prosthesis, with minimal risk of adverse local or general tissue reactions, consists of a detailed understanding of the response behavior of highly differentiated hard and soft tissues to surgical preparation of recipient site and installation of the prosthesis, as well as the long term tissue adaption to functional demands on the anchorage unit. In this paper we will try to cover the surgical and prosthetic protocol of the osseointegrated implants.

HIGH DOSE PREOPERATIVE RADIATION AND SPHINCTER PRESERVATION SURGERY FOR RECTAL CANCER. M Mohiuddin, MD, G Marks, MD, Department of Radiation Oncology and the Comprehensive Rectal Cancer Center, Thomas Jefferson University Hospital, Philadelphia, Pennsylvania.

Thomas Jefferson University Hospital, Department of Radiation Oncology and the Comprehensive Rectal Cancer Center.

125 patients with carcinoma of the rectum were entered into a program of high dose preoperative radiation followed by sphincter preserving surgical resection. All patients were treated with high energy photons to a dose of 4000-6000 cGy in 4 1/2 - 6 weeks. Curative surgery consisted of either a combined abdominal transacral resection (N = 55), an anterior resection (N = 28), or transanal abdominotransanal resection with colonic anastomosis (N = 42). There was no perioperative mortality. Three anastomotic disruptions occurred, 2 of which were reconstituted. The overall 5 year survival rate with a median follow-up of 40 months was 81%. For post-radiation Stage O, A, and B1 (N = 37), the 5 year survival rate was 100%. For B2, C1, and C2 tumors, (N = 88), the 5 year survival rate was 74%. Overall local recurrence rate was 12.5%, and normal sphincter function was maintained in all but two patients.

CARDIAC MANIFESTATIONS OF THYROID DYSFUNCTION. S Akhtar, MD, Department of Medicine and Endocrinology, St. Vincent Hospital and Indiana University School of Medicine, Indianapolis, IN.

Cardiac manifestations of thyroid dysfunction are not uncommon. However, sometimes they present diagnostic and management problems. Acute pulmonary edema can occur during the treatment of hyperthyroidism and has also been reported during hypothyroidism. It is very important to ascertain whether the pulmonary edema is due to an underlying cardiac disease or is occurring because of thyroid dysfunction. We have recently seen cases of pulmonary edema occurring during both hyper- and hypothyroidism. The first case was a 59 year old woman, who developed acute pulmonary edema, 18 hours after I¹³¹ treatment for thyrotoxicosis. The second case was a 66 year old woman with recurrent hyperthyroidism, and known coronary artery disease, who developed acute pulmonary edema while being thyrotoxic and again during the phase of hypothyroidism post I¹³¹ treatment. High output cardiac failure, arrhythmias, pericardial effusion, septal hypertrophy, and cardiomyopathy can occur in patients with thyroid dysfunction.

UPDATE IN IMMUNOLOGY AND IMMUNOTHERAPY. Amanullah Khan, M.D., PhD., Immunotherapy Department, The Cancer Center at Wadley Institutes, Dallas, TX.

The last 15 years have seen tremendous strides made in the field of immunology and immunotherapy. This has been the direct result of development of new tools and techniques leading to better understanding of the basic immune process. For example, the development of monoclonal antibody techniques have made it possible to realize the long standing dream of immunologists to produce pure antibodies *in vitro*. The discovery and understanding of mediators of immunity and their molecular interaction has led to elucidation of the cellular immune responses. This development along with contributions made by biotechnology has made it possible, not only to understand the basic mechanisms involved in the immunologic reaction, but also has helped in the evolution of a whole new set of approaches in the field of immunotherapy. During a very short period of time, immunotherapy has established itself as a definite mode of treatment in neoplastic diseases, such as renal cell carcinoma, melanoma, and lymphoproliferative diseases. This presentation will discuss at length the subjects outlined above.

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ACUTE MYOCARDIAL INFARCTION, THROMBOLYTIC THERAPY. A Rahim, M.D., Mount Sinai Medical Center, Miami Beach, FL

The Management of acute myocardial infarction (MI) has changed significantly in the recent years from that of observation to active interventions with resultant decrease in mortality from 30% to 5%. It is now generally accepted that a thrombus on a ruptured plaque is the most common cause of acute coronary occlusion. Dissolution of the thrombus and recanalization of the occluded vessel appears to be crucial in salvaging the myocardium at risk for necrosis. Large trials such as GISSI clearly demonstrate the benefit of thrombolytic therapy, which is dependent on the time elapsed between the onset of symptoms and restoration of the patency of the occluded artery by such thrombolytic agents as tissue plasminogen activator (TPA), streptokinase, and urokinase, which are currently available, and APSAC and Prourokinase which are to be released soon. Trials are underway to compare the various agents and to study the subsequent course of management for patients who have received thrombolytic therapy.

CORONARY BYPASS SURGERY IN THE ELDERLY. AH Hakki, MD, St. Petersburg, Florida.

One hundred twenty one (121) consecutive, elderly patients who underwent coronary revascularization were studied to evaluate mortality, morbidity and surgical benefit. The patients were selected for surgery over a five-year period. The minimum age group selected was 70 years old. Their hospital mortality was 1.6% and late mortality 4.1%. Within two weeks of coronary bypass surgery, 10% of vein grafts were occluded, an additional 10-20% occluded by one year and very few thereafter. Vein grafts which were patent at 3-18 months after surgery occluded at a low rate of approximately 2% over the ensuing five years. Myocardial revascularization in elderly patients is feasible with acceptable mortality and only a modest increase in morbidity compared to younger patients. The advent of the internal mammary artery as a conduit has been expanded to the elderly group, thus further improving the patency of the graft and survival of patients.

ANTENATAL DIAGNOSIS OF FETAL INTRACRANIAL ANOMALIES. HE Fadel MD, Department of Obstetrics and Gynecology, Section of Perinatology, University Hospital and Department of Obstetrics and Gynecology, Medical College of Georgia, Augusta, GA.

Central nervous system defects are the most devastating of the various fetal malformations which can be sonographically diagnosed and thus the importance of their early detection. The sonographer often initiates a decision-making process presenting the patient with difficult options. An accurate and reliable sonographic diagnosis becomes an essential part of this evolving aspect of obstetric care. In this paper, the major CNS defects that have been diagnosed sonographically and the author's experience are presented with a brief outline of the pathology, diagnostic features, the prognosis as well as the management options. Most of these malformations are serious enough that termination of pregnancy is usually offered if the diagnosis is made before age of viability, and in some cases even later (anencephaly, hydranencephaly, alobar holoprosencephaly). Intrauterine treatment, principally ventriculo-amniotic shunting, has been the practice in several centers but the results are not encouraging and remains an investigational procedure with little possibility of wide clinical application. A diagnosis of one of the serious/lethal malformations in the third trimester of pregnancy allows the obstetrician to choose not to perform cesarean section because of fetal distress or because of dystocia (macrocephaly) in such "doomed" fetuses. On the other hand, cesarean section may be the preferred route of delivery in certain malformations, for example: encephalocele and meningocele.

MODERN IMMUNOLOGICAL KNOWLEDGE IN THE LIGHT OF QUR'ĀN AND ḤADITH. Shabbir Ahmed, O St J MRCGP. King Fahd Hospital, Jeddah, and Islamic Department, King Fahd Medical Research Centre, King Abdel-Aziz University, Jeddah, Saudi Arabia.

The miracle of the Qur'ān lies in its containing facts and knowledge true for all time. Allāh says, "We have left out nothing in this Book" (5:38). Passage of time and progress of science makes it possible for us to understand more and more of what the Qur'ān hints at in its text and what Ḥadith narrates. The Qur'ān invites scholars and researchers to find leads in the Divine text for our present knowledge and guidance for future research. Effort has been made to identify such 'Āyāt in the Qur'ān and such Ḥadith which refer to protection from infection in mankind. The paper also illustrates how the progress in knowledge of infection and immunity has elucidated the truth hidden in the diversity of the 'Adwā Aḥādīth which heretofore had provoked controversy. It also shows how the Ṭā'ūn Aḥādīth diluted the effect of Middle Age plague epidemics in the Islamic countries. The paper also refers to how hygiene of the orifices by Wudū' contains infection, and how sexual permissiveness creates uncontrollable diseases, as is warned in one of the Aḥādīth.

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RECURRENCE OF BREAST CANCER: DETERMINATION OF THE RISK FACTORS. KL Rehman, MD, Staten Island, New York.

In the USA 143,000 women are estimated to develop breast cancer this year. Of these, 70,000 will be diagnosed as Stage I-II with negative nodes. Of these, 25% will develop recurrent disease and 15% will die of the cancer within 5 years.

The debate continues as to whether or not to give adjuvant chemotherapy to this group of stage I-II, node negative patients. Those opposing chemotherapy point out the fact that to benefit the 25% who are at risk, we will have to treat the whole group, since we can not separate the at-risk group.

If reliable tests were available to identify the at-risk group, then the rest would be spared the physical, emotional and financial stress of the adjuvant chemotherapy.

The current state of laboratory tests and other risk factors which can help identify the at-risk group, as well as the direction of the research in this field, will be presented.

AN EVALUATION OF THE SAFETY AND EFFICACY OF IV/PO OFLOXACIN IN THE TREATMENT OF LOWER RESPIRATORY TRACT INFECTIONS (LRTI). S Chadda, A Soltan, F Khan, MD, FACP, Department of Medicine, Nassau County Medical Center, East Meadow, NY and State University of New York at Stony Brook.

We observed in this study the efficiency and safety of IV Ofloxacin PO q12h in LRTI. Bacterial infection was "presumed" if patients had compatible clinical features, and "proven" if patient had, in addition, a positive sputum culture. Of the 22 patients treated, 20 were evaluable and produced 33 bacterial isolates: Haemophilus influenzae (2), Haemophilus parainfluenzae (2), Neisseriae (3), Branhamella catarrhalis (3), Klebsiella (1), Enterobacter arogenes (2), and gram positives: Strep pneumoniae (12), Staph aureus (1), B-streptococci (4), and corynebacterium (3). All these isolates showed in vitro sensitivity to Ofloxacin. The results of this clinical trial are tabulated:

<u>Ofloxacin</u>	<u>Success/Failure</u>	<u>%Cure</u>
Proven	14/0	100
Presumed	6/0	100

We conclude: 1) Ofloxacin was a highly effective therapy for moderate to severe LRTI, with the marked advantage of bid dosing in both IV and oral forms. 2) Ofloxacin showed broad in vitro activity against both gram-positive and gram negative bacteria. 3) All isolates were sensitive to Ofloxacin. 4) Six of the 22 patients had minor side effects (skin rash, dizziness, palpitations, itching, visual hallucinations, insomnia, epistaxis and abdominal distention) necessitating discontinuation of therapy in one. 5) Ofloxacin will be a useful antimicrobial in the treatment of respiratory tract infections.

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ADHERENCE OF PSEUDOMONAS TO SOFT CONTACT LENSES, CORNEA, MECHANISMS, AND PROPHYLAXIS. N Panjwani, Jules Baum, Tufts-New England Medical Center, Boston, Massachusetts.

We have observed a recent increase in the incidence of bacterial keratitis with the use of extended wear contact lenses. At present, there are only clues to the causality of the association and investigators are tracking both the epidemiological aspects of this concurrence and its possible mechanisms. In this presentation, we will briefly survey the burgeoning literature relating to mechanisms of bacterial adherence to epithelial cells in general and pseudomonas adherence in particular. We will examine bacterial adherence to inert materials, especially contact lenses, and explore those paths that might lead to the prevention of pseudomonal corneal infection due to extended wear contact lenses.

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THE PSYCHOANALYSIS OF SALMAN RUSHDIE. MS Megahed, Department of Neurology, University of Rochester, Williamsville, New York.

What type of personality is Salman Rushdie, the author of Satanic Verses? Is he a twentieth century Don Quixote? Is he a politically motivated anarchist? Or is he simply a marginal person with schizophrenia?

Rushdie's book revolves primarily around his hatred towards his father and what he stood for-color, culture, and religion.

CURRENT STATUS OF HUMAN IN VITRO FERTILIZATION. MY Dawood, Obstetrics and Gynecology Department, University of Illinois College of Medicine, Chicago, IL.

In Vitro fertilization (IVF) is now one of the established treatments for infertility. IVF consists of 4 essential major steps: (1) recruitment and stimulation of multiple follicles (ovulation induction), (2) oocyte retrieval, (3) fertilization of oocyte with spermatozoa in the laboratory, and (4) transfer of the embryo into the uterus. Successful pregnancy rates are 15-20 percent at best. A high loss rate appears to occur after embryo transfer mainly due to our poor understanding of implantation biology. Besides a proficient, experienced team and a good laboratory, success rates are higher with more oocytes and therefore more embryos for transfer. The ovulation induction step has undergone changes from clomiphene citrate alone to human menopausal gonadotropin (HMG), to programmed ovulation induction with gonadotropin releasing hormone agonist (GnRHa), or oral contraceptive or progestin (to suppress the pituitary and therefore prevent premature LH surges) combined with HMG. Initially performed through the laparoscope, oocyte retrieval is increasingly performed transvaginally under ultrasonographic guidance as an outpatient procedure. Combined with programmed ovulation induction, sonographic oocyte retrieval and embryo/ova freezing will enable IVF to be simpler, less expensive and more readily available. Newer developments riding on IVF include micromanipulation of the ova (zona drilling, sperm injection) to facilitate fertilization, embryo biopsy for fetal sexing by DNA analysis and optimal freezing techniques for ova and embryos. In the future, genetic therapy or manipulation, and cloning of embryos may be practical for more efficient and economical assisted human reproduction.

LASER LAPAROSCOPY FOR PELVIC-ABDOMINAL SURGERY. JA Fayez, MD, Department of Obstetrics and Gynecology, Section of Reproductive Endocrinology, Bowman Gray School of Medicine of Wake Forest University, Winston-Salem, North Carolina.

The carbon dioxide laser was used for the treatment of different pelvic and abdominal pathologic entities in 443 women. Two hundred and three women had different stages of endometriosis treated, 68 had salpingo-oophorectomy, 52 had salpingostomy, 18 had fimbrioplasty, 37 had upper abdominal adhesiolysis, 18 had Frankenhauser plexus ablation, 16 had ectopic pregnancies, 14 had ovarian cystectomies, 11 had myomectomy, and 6 had ovarian cystostomy. The average pregnancy rate for patients who had infertility because of endometriosis was 62%, for those who had salpingo-oophorectomy the rate was 85%, for fimbrioplasty patients it was 67%, and for those women who had salpingostomy the rate was 29%. There was 100% pain relief for women who were treated because of pain due to endometriosis or adhesions. Seventy-eight percent of patients who were treated because of dysmenorrhea had complete relief, 11% had partial relief, and 11% had no relief at all. Only one patient needed laparotomy for postoperative bleeding, otherwise there were no intraoperative or postoperative complications.

MAKING THE ETIOLOGIC DIAGNOSIS OF PNEUMONIA. B Chaudhary, MD, FCCP, Professor of Medicine, Section of Pulmonary Diseases, Department of Medicine, Medical College of Georgia, Augusta, GA.

Pneumonia is a serious medical entity and in the US mortality varies from 6 to 24%. The etiologic diagnosis is well established when organisms are isolated from blood or pleural effusion. The yellow or green color of sputum is due to leukocytes and does not always indicate infection. In patients with allergies, this color is frequently due to eosinophils. Culture of the expectorated sputum is unreliable because of contamination by the upper airway bacteria. An acceptable sputum smear is characterized by a low number of epithelial cells, higher number of leukocytes, and the presence of alveolar macrophages. Gram-stain gives good clues about pneumococcal, Klebsiella, and mixed anaerobic infections. Common problems include interpretation of streptococci as *S. pneumoniae* and missing *H. influenzae*. Transtracheal aspiration minimizes the upper airway contamination but is infrequently used. Fiberoptic bronchoscopy is being used frequently to obtain specimens from the infected areas. Bronchoalveolar lavage has proved to be extremely helpful in making the diagnosis of pneumocystic infections in AIDS patients. Double lumen catheter systems can obtain secretions from the site of pneumonia without contamination. Transbronchial biopsy provides tissue specimens for stains and cultures. Transthoracic needle aspiration with a fine needle (25 gauge) provides diagnostic yield in 56 to 82% of cases with a false negative rate of 22%. Pneumothorax occurs in 20 to 30% of the cases but a chest tube is needed in only a to 1-15%. Open lung biopsy is done usually in very sick, immunocompromised patients if other diagnostic procedures have been unsuccessful.

OVERVIEW OF THE CURRENT APPROACH TO THE MANAGEMENT OF COMMUNITY-ACQUIRED PNEUMONIAS. M Ahmad, MD, Department of Pulmonary Disease, Cleveland Clinic Foundation, Cleveland, OH.

Pneumonia remains an important cause of significant morbidity and mortality in this country, and is the sixth most common cause of death. Community acquired pneumonias quite often have to be initially treated in the absence of a specific bacteriologic diagnosis. The initial choice of antibiotic therapy depends on age of the patient, time of the year, presence or absence of underlying disease, clinical history, and radiographic appearance. The common causes of community acquired pneumonias in the order of frequency are pneumococcus, legionella species, and Hemophilus influenza. Other causes include Mycoplasma, staph pneumonias and viruses. Mixed aerobic and anaerobic pneumonias arising in the clinical setting of aspiration are most often encountered in debilitated or neurologically compromised patients. Chlamydia and Branhamella can also occur as community acquired infections but are uncommon. Typical bacterial pneumonias are characterized by acute onset of fever, chills, chest pain, and cough. The atypical pneumonias usually have rather subacute symptoms with legionella, Mycoplasma and viruses being the usual pathogens. Splenectomized patients are predisposed to overwhelming infections with pneumococcus, and history of intravenous drug abuse should raise a high suspicion of staphylococcus aureus or pseudomonas infections.

Pneumococcal pneumonias usually present as lobar consolidation; Staphylococcal and gram negative pneumonias may cavitate. An adequate sputum specimen and its gram stain usually give a good clue as to the etiology of infection, and helps in initial selection of the antibiotic. The clinical presentation is also important in making the initial selection. Blood cultures should always be obtained prior to commencing therapy. Occasionally, fiberoptic bronchoscopy and use of bronchoalveolar lavage and protected brushes are extremely useful in establishing a diagnosis.

Patients with suspected pneumococcal pneumonia should be treated with Penicillin G. Those with symptoms of atypical pneumonia should receive Erythromycin, and patients with Hemophilus influenza pneumonia should be treated with a third generation cephalosporin. Suspected post-influenza staphylococcal pneumonia should be treated with Oxacillin or Nafcillin, and Vancomycin should be reserved for penicillin allergic patients. Seriously ill patients with a community acquired pneumonia should receive broad spectrum therapy until a specific diagnosis is established. A regimen of Erythromycin and a third generation cephalosporin provide adequate coverage. The cost and toxicity of the antibiotic should always be considered in making the initial choice.

CIPROFLOXACIN VS AUGMENTIN IN THE TREATMENT OF LOWER RESPIRATORY TRACT INFECTION (LRTI). A Soltan, S Chadda, F Khan, Department of Medicine, Nassau County Medical Center, East Meadow, New York.

In a prospective study we compared the efficiency and safety of oral Cipro, 500 mg bid, with oral Augmentin, 500 mg tid, in patients with lower respiratory tract infection. Bacterial infection was presumed if patients had compatible clinical features, or proven if patients, in addition, had positive sputum culture. Of the 60 evaluable patients treated, 36 produced 54 isolates: Haemophilus influenzae 23, Strept. pneumoniae 6, Branhamella catarrhalis 5, Klebsiella pneumoniae 4, Staph. aureus 3, E. coli 2, others 11. In vitro sensitivity was available in 34 of the 54 isolates. All, except three (Enterobacter cloace, Yersinia Enterocolirica, Acineto Calcoanitrarus), were sensitive to Ciprofloxacin. Twenty-six isolates were tested for Augmentin sensitivity and all, except three (Enterobacter Cloace, Yersinia Enterocolirica, Staph. aureus), were sensitive. The clinical results are tabulated:

<u>CIPRO</u>	<u>SUCCESS/ FAILURE</u>	<u>%CURE</u>	<u>AUGMENTIN</u>	<u>SUCCESS/ FAILURE</u>	<u>%CURE</u>
Proven	14/1	93.3	Proven	19/0	100
Presumed	12/0	100	Presumed	10/0	100

CONCLUSION: We conclude: 1) Cipro was highly effective therapy for moderate to severe LRTI; 2) Cipro showed a broad in vitro activity against both gram-negative and gram-positive bacterial infection; 3) three patients in each group developed side effects, necessitating the cessation of therapy for two patients on Cipro and one on Augmentin; 4) Ciprofloxacin was cost effective, at an average daily cost of four dollars vs six dollars for Augmentin.

CIPROFLOXACIN IN THE TREATMENT OF BACTERIAL LOWER RESPIRATORY TRACT INFECTIONS (LFTI). F Khan MB, FACP, Nassau County Medical Center, East Meadow, NY.

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

APPLICATION OF NEWER TECHNIQUES IN PERIPHERAL VASCULAR SURGERY. H Nagamia, MD, Department of Surgery, Tampa General Hospital and Heart Center, Tampa, Florida.

Newer techniques are now available in peripheral vascular surgery that are making available salvage of limb and life in cases where amputation was the rule only a few years ago. To name just a few: peripheral balloon angioplasty, laser assisted balloon angioplasty, atherectomy, stenting of arteries, distal vascular bypasses and micro-vascular techniques. Also, improved imaging techniques and non-invasive and invasive evaluation of the arterial tree have revolutionized peripheral vascular surgery.

Application of most of these techniques has become routine in our practice. Some of these techniques are being developed for application as an ongoing process of development.

This paper examines some of these techniques with illustrative examples to present a panorama for the uninitiated in peripheral vascular surgery.

USE OF AN INTRODUCER IN CANNULATION OF THE GREAT VESSELS. AN INNOVATIVE APPROACH TO AN IMPROVED CANNULATION TECHNIC.* Dean M Razi, MD, MS Sweeney, MD, E Shafii, MD, JE Lester, CCP and AH Reale, CCP, Tampa General Hospital, Tampa, FL.

The cannulation of the ascending aorta has been the method of choice in most open heart procedures. However, there have been a number of pitfalls that have concerned the surgeons. Such pitfalls have included the abutment of the beveled cannula tip against the opposite aortic wall with intimal injuries, formation of a thrombus and stroke, twisting, turning and misdirection of the cannula in or at the innominate (brachiocephalic) artery or toward the aortic valve, and air embolism with or without the use of a partial occlusion clamp. The "Cannula Introducer" consists of an extendable blade proportionate to the size of the cannula to be inserted. The movement of the blade is accomplished by a trigger in the handle of the device. The cannula also is released by another trigger in the handle. Ninety-two patients in whom this device was used underwent open heart surgery, without a single case of a stroke, air embolism, thromboembolism, or undue blood loss. These results were compared to 65 patients with the current method of cannulation and in whom this device was not used. In this latter group there were 5 cases of major neurologic deficits, one aortic dissection, one case of embolism to the leg and 4 cases of abnormal bleeding which necessitated take-backs in the first 24 hours. This device was simple to use and resulted in minimal trauma to the vessel intima and walls, and provided easy visibility of the cannulation site.

*The laboratory and clinical testing of this device was under the direction of Dr. RG Connor, Department of Surgery, University of South Florida, College of Medicine, Tampa, FL.

PERIODIC PARALYSIS: A STUDY OF TWENTY-THREE CASES. M Moonis, A Verma, S Jain, M Maheshwari, All India Institute of Medical Sciences, New Delhi, India.

Twenty-three cases of periodic paralysis (22 males, 1 female) were studied over the past five years. Age of onset was between 15 and 45 years, mean 25.6 years. All had characteristic episodic reversible limb and trunk muscle weakness lasting from 1-7 days, mean 1.5 days. Bulbar involvement was noted in three (13%) and bladder involvement in one (4.3%). Spontaneous attacks varied from 1-4 per year and a precipitating factor was identified in 19 (82.6%) cases. Hypokalemic periodic paralysis (91.3%) comprised the majority; normokalemic (4.3%) and hyperkalemic (4.3%) constituted the rest. Important differences in contrast to earlier studies included: high incidence of sporadic cases (91.3%), high incidence of hyperthyroidism (17.4%) and preceding myalgias (47.6%) in the hypokalemic group.

INTERNATIONAL INSTITUTE OF ISLAMIC MEDICINE. H Nagamia, MD, Islamic Medical Association of North America, Tampa, Florida.

The Concept of an International Institute of Islamic Medicine (IIIM) is presented. The reasoning, feasibility, location, funding, and functions of the Institute are defined and examined. How this institute can become a reality is discussed.

It is further discussed that the Islamic Medical Association (IMA) is the august body which should undertake such a venture and bring it into functional existence within this century, so that not only the next generation of Muslim Physicians in America will benefit, but the entire Muslim Ummah and the rest of the world can benefit from the work carried out at this Institute.

This paper will examine as a matter of practicality how the IMA can embark on this dream and realize it within the next decade, and have a showpiece for the Muslim World to follow.

SEX EDUCATION FOR MUSLIM YOUTH AND THEIR PARENTS. S Athar, MD, Departments of Medicine and Endocrinology, Indiana University School of Medicine and St. Vincent Hospital, Indianapolis Indiana.

Sex education of children and youth is a sensitive but important aspect of their learning. At present Muslim children are getting secular sex education at schools and getting the wrong messages from the media. In this article the pros and cons of American sex education and the Islamic concept of sexuality and marriage are discussed. A curriculum is proposed for Islamic sex education to be given at home or at Sunday Islamic Schools. The role of Muslim physicians is also discussed.

AUTOMATIC IMPLANTABLE CARDIOVERTER DEFIBRILLATOR (AICD). AH Hakki, MD, St. Petersburg, Florida.

AICD is a system that continuously monitors a patient's cardiac electrical activity and treats ventricular tachycardia and fibrillation by means of countershock applied to the heart via implanted electrodes.

Indications include patients with recurrent ventricular tachyarrhythmias, inducible and sustained ventricular tachycardia, fibrillation despite conventional drug therapy, or patients who survive at least one episode of cardiac arrest presumably due to a ventricular tachyarrhythmia not associated with myocardial infarction.

Surgical techniques are: (1) transvenous approach, (2) left thorocotomy, (3) median sternotomy, (4) transxiphoid, (5) subcostal and (6) hockey stick (4 & 5).

Complications include: (1) component failure, (2) lead related problems, (3) interactions - defibrillators, EMI, pacemaker, drug, radiation, (4) psychological, (5) skin potentials and (6) miscellaneous - infection, bleeding, hematoma, thrombosis, cyst formation, erosion and keloid formation.

THE ROLE OF CONSTITUTIONAL AND ENVIRONMENTAL FACTORS IN SUSCEPTIBILITY TO DUODENAL ULCER. M Mujahid Ali, M Ishaq, CM Habibullah, Department of Gastroenterology, Osmania General Hospital, Hyderabad, India.

A study was carried out on 900 duodenal ulcer patients during the years 1981-1988, to examine the role of constitutional and environmental factors in the etiology of duodenal ulcer disease. All patients had an endoscopically proven duodenal ulcer. Duodenal ulcers were 15 times more common than gastric ulcers. The incidence of the disease was more common in males than females, with the highest incidence between 20 and 40 years of age. The disease was unaffected by the season and no significant ethnic variations were observed. The disease was more common in people belonging to low income groups and unskilled professions. It was more common among rice eaters and those who were irregular in taking meals. Consumption of alcohol, tea or coffee was not associated with the disease, however, it was more prevalent among smokers. Pan chewing did not have any bearing on the disease pattern.

INFLUENCING THE BEHAVIOR OF MUSLIM CHILDREN AND THEIR PARENTS. S Athar, MD, Department of Medicine and Endocrinology, Indiana University School of Medicine and St. Vincent Hospital, Indianapolis, Indiana.

The behavior of growing children is influenced by many factors that include their parents and other close relatives, teachers, peers at school, community and the media. Lack of discipline and civilized behavior at school is major problem in the USA, which is also seen at home! With broken families and absence of a father at home, this becomes a major problem for single mothers raising teenagers.

Muslim children, though distinct in their value system, still are exposed to and affected by what they see and learn from the American scene.

In this presentation, some factors affecting children's behavior are listed, and corrective remedies are prescribed both for children and parents. Finally "the bill of rights" for both is presented.

EFFECT OF SUBACUTE DHATURA STRAUMONIUM TOXICITY ON THE LEVELS OF RIBONUCLEIC ACID AND DEOXYRIBONUCLEIC ACID CONTENT OF BRAIN AND ITS CORRELATION WITH HISTOPATHOLOGICAL CHANGES. Shameem Jahan Rizvi, Ansar A. Khan. Department of Forensic Medicine and Pathology, JN Medical College, Aligarh Muslim University, Aligarh, India.

Datura stramonium is a deliriant poison. In India, it is used frequently for stupefying travellers to facilitate robbery and abduction. In this study, the seed extract in a dose of 60 mg/Kg of body weight was injected for seven days. The isolation of nucleic acids was done by the method of Schneider (1957). The estimation of deoxyribonucleic acid (DNA) was done by the method of Dische (1930) and that of ribonucleic acid (RNA) was done by the method of Volkin and Colin (1964). The staining of brain tissue for histopathological study was done by hematoxylin and eosin. It was found that DNA was decreased in the brain regions while RNA was increased in all those regions except in one. The histological changes were in confirmity.