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#1
8/10, 8:30 A.M.

NUCLEAR MAGNETIC RESONANCE IMAGING. Ibrahim B. Syed, Sc.D., F.Inst.P., F.A.I.C., F.A.C.R., F.R.S.H., V.A. Medical Center and University of Louisville School of Medicine, 800 Zorn Avenue, Louisville, Ky. 40202, USA.

The basic concepts which are necessary to understand the physical principles of Nuclear Magnetic Resonance (NMR) imaging will be presented. It is intended as a primer for the physicians or scientists who are addressing the topic of NMR for the first time. The basis of the NMR phenomena is described with introduction of the concepts of magnetic moment, magnetic resonance, net magnetic moment of an object, NMR excitation and NMR emission. The equipment necessary to observe these NMR properties is summarized as well as the procedures for basic NMR experiments. The major scanning methods are reviewed, and the principles of techniques are discussed. Major emphasis will be on repeated free induction decay (RFID) which yields proton image density, inversion-recovery (IR) which yields images weighted by tissue T_1 values, spin-echo (SE) which yields images weighted by tissue T_2 values. Clinical applic;ations of NMR imaging will be presented. Absence of known biological hazards, lack of moving parts, absence of ionizing radiation, and ability to measure multiple tissue parameters makes NMR the study of choice in many clinical situations particularly in early cancer diagnosis and in pathologic changes in the broad spectrum of disease within the brain. NMR's ability to create detailed tomographic images in any plane, with both anatomic detail and tissue specificity is revolutionizing diagnostic imaging. It has additional advantage of measuring metabolic processes in vivo which has great impact on our understanding of health and disease.

#2
8/10, 9:30 A.M.

BYSSINOSIS: AN INCREASING PROBLEM IN DEVELOPING COUNTRIES. B.A. Chaudhary, A.S. Elguindi, T.K. Chaudhary and W.A. Speir, Department of Medicine, Medical College of Georgia and Veterans Administration Hospital, Augusta, GA, U.S.A.

Cotton has been used for textile purposes in Mexico and Indus Valley for more than 3,000 years. The cotton production has progressively increased in third world countries during the last few decades and this trend is likely to continue. Many medical problems related to exposure to cotton dust have been recognized. Mill fever is hypersensitivity pneumonitis which occurs on first exposure to cotton dust and subsides in a few days. Byssinosis is obstructive lung disease which occurs more commonly in workers who are exposed to high concentrations of cotton dust. Chief sources of dust production are in the mixing room, during opening of bales of cotton, in the 'blow room' where the cotton is beaten and blown to dust and in the 'card room' where carding machines card the fibers and remove dirt. Byssinotic symptoms are characterized by chest tightness and shortness of breath on first workdays of the week with improvement on subsequent weekdays. Slowly these symptoms progress to other weekdays and finally the patient has chest tightness, shortness of breath, and cough all the time. Chest roentgenogram does not show any abnormalities. Pulmonary function reveals obstructive lung disease; FEV_1 is reduced far in excess of FVC. Pulmonary functions of abnormalities follow the pattern of clinical symptoms. Cotton bract has been suggested as the source of antigen responsible for the symptoms and pulmonary function abnormalities in byssinosis. Various hypothesis for pathogenesis include local histamine release, athrus type antigen-antibody reaction, bacterial endotoxins and fungus enzymes. The treatment of byssinosis is symptomatic and bronchodilators are usually helpful. The incidence of permanent disability can be reduced by treating raw cotton with gaseous hydrogen chloride, by minimizing the cotton dust, wearing protective face mask, and removing patients who develop symptoms to less dusty areas, and avoidance of cigarette smoking. Periodic medical examination and pulmonary functions determination can help tremendously in reducing the long term disability.

#3
8/10, 9:45 A.M.

BRAIN SEIZURE THRESHOLD OF PRENATALLY NICOTINE TREATED OFFSPRING. Ghazi M. Al-Hachim, Ph.D., and Faiza A. Mahmood, MSC Pharmacology and Therapeutics Department, College of Medicine, Baghdad University, Baghdad, Iraq.

It has not been reported the trimester of pregnancy through which nicotine may influence the postnatal development. Hence, three different doses of nicotine equivalent to 10 cigarettes (900 ug/kg), 20 cigarettes (1800 ug/kg) or 30 cigarettes (2700 ug/kg) were given daily S.C. during each trimester into three groups of pregnant mice. Their offspring were subjected to minimal electroshock seizure threshold (MEST) test. During the second trimester, the drug reduced the MEST of the offspring when they were one month old, but during the third trimester, it reduced their MEST when they were one and two months old. Thus, pregnant mothers are not recommended to be exposed to nicotine during the late stages of pregnancy.

Present Address: Pharmacology Department, College of Medicine, King Abdulaziz University, P. O. Box 9029, Jeddah, Saudi Arabia.

#4
8/10, 10:00 A.M.

PHEOCHROMOCYTOMA AND ASYMPTOMATIC MEDULLARY CANCER OF THYROID IN A YOUNG MALE: A CASE OF MULTIPLE ENDOCRINE NEOPLASIA TYPE II: Shahid Athar, M.D., Indiana University School of Medicine and St. Vincent Hospital, Indianapolis, IN.

Pheochromocytoma is an uncommon cause of hypertension. However, in each case of pheochromocytoma, other endocrine neoplasia should be looked for.

A 36 YO WM with 2 years history of labile hypertension presented with accelerated hypertension 210/130, and intermittent left sided weakness. Pheochromocytoma was suspected and confirmed chemically and by CT scan of adrenals. His VMA was 37.4 (N<6). Total plasma Catcholamine 3,493 (N<115), Epinephrine 1,894 (N<25) and Norepinephrine 1,599 (N<115). He had no goiter or thyroid nodule but serum Calcitonin was done and reported 6,400 (N<425). After Calcium Infusion, the Calcitonin was 9,400. Thyroid scan showed cold nodule in each lobe.

After blocking with Dibenzyline 20 mg. daily he underwent left adrenalectomy for pheocyromocytoma. This normalized his blood pressure and he was released on no medication. Two weeks later he was readmitted for total thyroidectomy and lymphnode dissection. He was also given a course of external radiation to neck and mediastinum. Subsequently, he has done well on Synthroid, Calcium and vitamin D. His last BP was 120/80, VMA 2.1 and Calcitonin 98. A brief view of Multiple Endocrine Neoplasia is also given.

#5
8/10, 10:15 A.M.

THE EFFECTIVENESS OF A NUTRITION EDUCATION GAME "FOOD FOR THOUGHT" IN INFLUENCING THE FOOD SELECTION BEHAVIOR OF UNIVERSITY CAFETERIA PATRONS.

Syed A. Hussain, Ph.D., Research Scientist, Swift/Hunt Wesson Foods, Inc., 4612 Speaker Road, Kansas City, KS 66106.

Because the eating habits of a nation affect its health, methods of influencing those eating habits are very important. Research was undertaken to measure the effects that an American Heart Association nutritional game would have upon the mean caloric intake, the percentage of meals with desserts, and the percentage of consumption of skim milk of patrons of a university cafeteria. Patron food choices were unobtrusively measured for 16 weeks by means of a computerized cash register inventory system, then the effects of the media-based nutritional game were analyzed by intervention time series analysis. During promotion of the game, patrons of the cafeteria reduced their mean caloric intake by 5%, percentage of desserts by 19%, and increased consumption of skim milk by 40%. Of even more significance was the maintenance effects realized after the "Food for Thought" game ended. The changes in choices persisted after intervention (i.e., after the game). This paper documents the effectiveness of the "Food for Thought" game and also yields results generalizable to similar advertising campaigns and educational programs.

#6
8/10, 10:30 A.M.

GLYCOSYLATED HEMOGLOBIN, AND PROTEIN LEVELS IN NORMAL AND DIABETIC PREGNANCIES. RELATION TO BIRTHWEIGHT. H. E. Fadel, M.D., M.M. Elseweidy, Ph.D., and E.C. Abraham, Ph.D. Depts of Ob/Gyn, and Cell and Molec. Biol. Medical College of Georgia, Augusta, GA 30912

Fetal overgrowth continues to be a problem in diabetic pregnancies. It has been postulated to result from fetal hyperglycemia. A newly introduced affinity chromatographic method permits the measurement of total glycosylated fraction of both hemoglobin (GHB) and plasma proteins (GPR). In the cord blood (CB), the acetylated fraction of HbFIc is not measured, while the glycosylated fraction of HbA is measured. This new technique thus permits a true quantitation of the total glycosylated fraction of Hb in CB. Using this technique, we measured GHB, and GPR in maternal blood during labor (Mat), and CB of 20 normal, 17 class A, and 8 overt diabetics. The birth weight ratio (BWR) was calculated: actual birth weight/50th percentile weight for the same sex at the specific gestational age.

The groups were comparable as regards the maternal age, gravidity and gestational age at delivery. Mat-GHB was significantly higher in overt - but not in class A diabetics - than in the controls (8.9 $\pm$ 0.9% vs 7.0 $\pm$ 0.6%). Mat-GPR was slightly but insignificantly increased in diabetics than in controls. CB-GHB and GPR were significantly higher in overt - but not in class A diabetics - than in controls (6.2 $\pm$ 0.7% and 13.4 $\pm$ 3.7% vs 4.7 $\pm$ 0.7% and 8.8 $\pm$ 1.6% respectively), indicating the presence of fetal hyperglycemia in overt diabetics. The BWR was higher in the diabetics. However, there was no correlation between BWR, and either the Mat or CB-GHB or GPR. These results indicate that maternal/fetal hyperglycemia is (are) not the only factor(s) contributing to fetal overgrowth in diabetes.

#7
8/10, 10:45 A.M.

CONTRIBUTIONS TO ANATOMY BY MUSLIM MEN OF MEDICINE. M. B. Khan, Department of Anatomy, J. N. Medical College, A.M.U., Aligarh, India.

The Arabic-Muslim leadership in sciences existed between the 8th and 14th Centuries. Their sources of lknowledge were mainly Greek and Indian; hence, they named their Medical Sciences UNANI-Greek and Mathematics HINDISA- of Indian origin. They gave science its present temper, not only in its method but also in its form. In medicine, Razi, Ibn Sena, Zuhrawi, Ibn Nafees are some of the authors whose writings are well known and still available. The format of their books is strikingly modern. Ibn Sena's "Canoon" contains the definition and scope of medicine, followed by the description of general principles of the then known Sciences, which is followed by Anatomy and Physiology. Only after this, Pathology and management of the diseases are described.

The Arab and Muslim Anatomy was mainly based on Galen's teaching. The most notable original contribution is that of Ibn Nafees, who described lesser circulation in the 13th Century, nearly 250 years before William Harvey. Zuhrawi (10th and 11th Centuries) emphasized that every surgeon should have a thorough knowledge of Anatomy before undertaking Surgery. The Muslim contributions in the Anatomy of Eye are in many respects original.

#8
8/10, 11:30 A.M.

PREVENTION, DIAGNOSIS AND TREATMENT OF HERPES SIMPLEX VIRUS INFECTIONS OF THE NEONATE. A REVIEW. Shehla H. Naqvi, Dept. of Pediatrics/Adolescent Medicine, St. Louis University, St. Louis, MO.

Herpes simplex virus (HSV) infections of the neonate are associated with very high mortality and survival frequently occurs with neurologic sequelae. The infection is generally acquired from infected maternal genital tract. The risks of neonatal HSV infection have become magnified by the recent increase in the incidence of genital herpes. Recognition of high risk pregnant patient, detection of maternal genital herpes by culture or histopathology, followed by delivery of the child by cesarean section will prevent intrapartum exposure to infection.

Other methods of diagnosis, other modes of transmission and neonatal presentation will be discussed. Treatment of neonatal herpes with adenine arabinoside and acyclovir and the role of new antiviral agents as well as immune globulin will be addressed.

#9
8/10, 12:00 P.M.

FOOD ALLERGY. Tesneem K. Chaudhary, M.D., Section of Allergy and Immunology, Department of Medicine and Pediatrics, Medical College of Georgia, Augusta, GA 30912.

Food allergy is common in children, and its incidence in the pediatric population has been reported to be between 0.3-7.5%. The incidence of food allergy decreases with age. Food allergy is an immunologic reaction resulting from ingestion of a particular food or a food additive. Symptoms of food allergy are usually related to gastrointestinal tract, skin, or respiratory tract; or there may be involvement of many organ systems. Sometimes anaphylactic reactions may occur. The foods most commonly implicated in causing allergic reaction are eggs, milk, wheat, peanuts, fish, and nuts. Adverse reactions to food additives, e.g., sulfiting agents, monosodium glutamate, and azo and monazo dyes are being increasingly recognized. The majority of allergic reactions to food are IgE mediated immediate hypersensitivity reactions. The clinical diagnosis of food allergy is assisted by skin tests, the radioallergosorbent test (RAST), and, when considered safe, by oral challenge with suspected food. The basic treatment for food allergy is avoidance of the suspected food. Symptomatic treatment may be required in the event of inadvertent intake of the food. The role of cromolyn sodium in the treatment of food allergy is not clear at present.

#10
8/10, 12:30 P.M.

PEDIATRIC APPLICATIONS OF CRANIAL SONOGRAPHY. Asma Q. Fischer, M.D., Assistant Professor, Department of Neurology (Pediatric Neurology), Medical College of Georgia, Augusta, GA 30912.

Cranial Sonography (CS) is a new innovative method which is rapidly becoming an invaluable diagnostic tool for neurologic disease in children with open fontanelles. Cranial Sonography utilizes ultrasound instead of ionizing radiation for visualization of brain structures. Its major advantage is its mobility, allowing the procedure to be performed at the bedside without degradation of the image. The procedure is non-invasive, which is highly desirable in the pediatric age group.

Recognition of intracranial hemorrhage occurring in prematurity was a major diagnostic breakthrough provided by Cranial Sonography. It opened new avenues of understanding neuropathologic processes in the neonate. Hypoxic ischemic insults, including strokes in infants, have been reported on CS. Congenital malformations are outlined in exquisite detail in three dimensions. Diagnosis and follow-up of ventriculomegaly with measurements is the ideal method for evaluation of hydrocephalus. Most recently, CS has been used for diagnosing extracranial masses and their relationship to the brain in children. Spinal anomalies, including tethered cord and occult meningoceles, have been identified by CS.

The diagnostic applications of Cranial Sonography will be presented with cases from different neurpathologic categories, along with computed tomographic or autopsy confirmation.

#11
8/11, 8:00 A.M.

MONOCLONAL ANTIBODIES AND THEIR APPLICATIONS. Amanullah Khan, M.D., PhD. Chairman, Department of Immunotherapy, The Cancer Center at Wadley Institutes, Dallas, Texas 75235

It has been the dream of immunologists to produce homogeneous antibodies in vitro.This dream has now been realized through a series of developments in the field of biology. The first step in this direction was the somatic cell hybridization. By this technique, a cell that produces a particular molecule can be fused with a cell that is capable of growing in tissue culture. The hybrid, thus established, can propogate itself in the tissue culture and produce the molecule of interest. The next step in this direction was the HAT selection which by selectively eliminating cells that do not hybridize, made it possible to select hybridized cells from those that were not. The monoclonal antibodies are produced by utilizing the above methodology in which an antibody producing lymphoid cell is fused with a plasma cell which grows in tissue culture. The resulting hybrid cell can produce the desired antibody. These hybrids can be propogated in vitro as well as in the peritoneal cavity of a mouse. The monoclonal antibodies have numerous applications which include (1) identification of cell surface markers, (2) identification of malignant from non-malignant tissues, (3) purification of molecules by affinity chromatography, (4) diagnostic potential in radioimmunoassays and ELISA, (5) therapeutic applications for treating various malignant diseases by direct attack with the antibody or by delivering other substances tagged to the antibody to a targeted site, (6) imaging; a radioactive isotope can be tagged to the antibody and delivered to a target, thus making it possible to image that particular site.

One of the areas of my interest has been to produce monoclonal antibodies against various neoplastic tissues. A monoclonal antibody WI-MN-1 was produced against melanoma cell line G361. This antibody was found to react with melanoma cells in 22 out of 24 melanoma tissues tested. Therefore, the antibody can be used for immunofluorescence of the melanoma tissue as well as the tissue sections.

#12
8/11, 9:00 A.M.

THE OFFICE LABORATORY

Paul Mehdi Fischer, Director of Research, Department of Family Medicine, Medical College of Georgia, Augusta, GA 30912
Lois Anne Addison*, Laboratory Director, Department of Family Medicine, University of North Carolina, Chapel Hill, NC 27514

95% of primary care physicians provide laboratory services to their patients in the office setting. New technology permits a wide range of sophisticated tests to be performed in the office. But, medical education has not prepared most physicians to assume the role of the laboratory director. Clinical training programs are responsible for fostering a variety of myths about the office laboratory. These include:

1. The office laboratory is a great source of practice revenue.
2. All tests that can be done in the office, should be done.
3. Laboratory excellence can be achieved with little effort.

Changes in medical education, office staffing and laboratory testing are required to assure that high quality laboratory services are provided in the office setting.

#13
8/11, 9:15 A.M.

ELECTROCARDIOGRAPHIC CHANGES FROM INTRACRANIAL PATHOLOGY

Iqbal M. Mirza, M.D., Department of Anesthesiology, University of Florida College of Medicine, Gainesville, Florida

The purpose of this presentation is to review the effects of intracranial pathology on myocardium. Patients with ischemic and hemorrhagic strokes frequently have abnormal electrocardiograms reflecting ischemic changes, conduction blocks and arrhythmias. Reports in the literature suggest that such abnormal electrocardiograms may result from focal myocytolysis similar to catecholamine cardiomyopathy and different from areas involved in myocardial infarction.

The etiology of the electrocardiographic changes is thought to result from increases in intracranial pressure (ICP) and sympathetic overactivity by stimulation of the limbic system. Animal study simulations of increased ICP produced intramyocardial hemorrhage. Catecholamine measurement has shown marked increases in similar circumstances.

Serum cardiac enzymes elevations have been found in 44% of stroke patients, usually peaking in four days with the patient demonstrating an increased incidence of arrhythmias. Neurosurgical patients developing cardiac complications have a worse prognosis probably reflecting a more severe intracranial pathology. A double blind study of patients with subarachnoid hemorrhage has shown prevention of ECG changes and myocardial damage after treatment with alpha and beta blockers.

#14
8/11, 9:30 A.M.

OBSTETRICS AND GYNAECOLOGY IN ARABIAN MEDICINE. G. I. El Masry, M.D., Faculty of Medicine, Al Azhar University, Cairo-Egypt.

The subject deals with an aspect of medical history which is of more general interest than topics about pure gynaecology and obstetrics.

The evolution of Arab Medicine started in the Eighth Century A.D., and its influence was maintained up to the end of the Eighteenth Century.

There was a large list of names of Arabic authors who wrote about gynaecological and obstetric diseases.

The most eminent authors among them were El-Razyi (865-925 A.D.), who wrote the "Continent of Medicine;" Aly Ibn Abbas, who died 944 A.D., wrote "Al-Maliki;" Ibn Sina (980-1037 A.D.), who wrote "El-Cannon" of Cannon Medicine; and El-Zahrawi (1030-1106 A.D.), who wrote "El-Tasrif."

#15
8/11, 9:45 A.M.

INFLUENCE OF PROPRANOLOL ON THE FIRST PASS LUNG UPTAKE OF N-ISOPROPYL-I-123-IODOAMPHETAMINE USING DUAL INDICATOR DILUTION TECHNIQUE

S.F. AKBER, L.R. BENNETT
UCLA School of Medicine, Los Angeles, CA.

In order to determine the sensitivity of the procedure for detecting and measuring pharmacological intervention in the pulmonary endothelial amine receptors; propranolol is administered i.v. to the intact dogs at different dose levels and time schedules.

The procedure is evaluated in 10 experiments in two dogs to study the clearance kinetics of N-Isopropyl-I-123-Iodoamphetamine (IMP). Rapid sequential imaging is performed following the i.v. administration of a reference intravascular tracer and later a test tracer. The time-activity curves of the input vascular and organ of the reference tracer are gamma fitted and are deconvolved. Residue function predicted for the test tracer is evaluated by convolving the input vascular curve of the test tracer with the impulse response function of the reference tracer. Extraction fraction is calculated as $E(t)= R_T(t) - R_R(t)/1 - R_R(t)$, where $R_T(t)$ and $R_R(t)$ are the normalized residue functions for observed and predicted tracer, respectively.

Competitive effect of propranolol for the same endothelial receptor sites has been observed by the change of the IMP first pass pulmonary extraction. The calculated first pass lung uptakes of IMP in the pretreated dog with propranolol (10mg,i.v.) is 62±3% relative to Tc-99m Dextran as a reference tracer. This result will be compared with Ketamine (100mg,i.v.) pretreated dog and the first pass lung uptakes found to be 64±2% relative to Tc-99m Sulfur Colloid as a reference tracer. The first pass lung uptakes of IMP is 92±4% relative to Tc-99m Sulfur Colloid.

The above result indicate that the present invivo technique provides a noninvasive method to study the physiology of competitive pharmacological interaction in a clinical environment.

#16
8/11, 10:00 A.M.

IHSS: IDIOPATHIC HYPERTROPHIC SUBAORTIC STENOSIS. Saeed A. Khan, M.D., F.A.C.P., Benton Medical Center, Benton, IL 62812.

In the treatment of IHSS, Digoxin in contraindicated. Digoxin can aggravate the symptoms, as in this particular patient.

Nitroglycerine and Nitrates are also contraindicated. Propranol (Inderal) is the drug of choice (or any other Beta Blockers). It produces Bradycardia and blocks sympathetic activity. In doses of 20 mg to 80 mg four times daily, it reduces chest pain, palpitation, and cardiac arrhythmia.

In this patient, she already developed Congestive Heart Failure; therefore, Myomectomy was carried out with careful consideration and she improved remarkably.

After Myomectomy, she was treated with maintenance does of Inderal. Surgical therapy is reserved for patients with heart failure.

The operation consists of partially excising hypertrophied interventricular septum. In an experienced hand, the mortality rate is 5%. Excellent symptomatic improvement has been reported in chest pain, dyspnea, and syncope.

#17
8/11, 10:15 A.M.

EXPERIENCE WITH BLOOD BRAIN BARRIER DISRUPTION (BBBD) FOR CHEMOTHERAPEUTIC TREATMENT OF MALIGNANT BRAIN TUMORS. Jagadishwar Devkota, M.D., Neuroradiology, University of Missouri-Columbia, Columbia, Missouri.

It is an established fact that blood brain barrier exists due to non-fenestrated cerebral capillary endothelial cells forming a zona occlusion with little pinocytosis and increased number of mitochondria. This tight junctional interface prevents the water soluble systemic blood-borne substance from entering the brain. Due to this barrier, oral or intra-vascular administration of chemotherapeutic agents do not reach to the brain tumor. To be able to deliver an effective amount of treatment agent to the growing interface of the malignant brain tumor, a mechanism of disruption of the BBB is established via intraarterial intracranial injection of hyperosmolaragent via intraarterial catheter into the tumor territory.

In our University, a team of neuroradiologists and neurosurgeons have started to treat recurrent malignant brain tumors applying the concent of BBBD. So far, we have treated those cases not benefited by surgery and full dose of radiotherapy. Our results have been encouraging in respect to the improvement of the general status of the patient and decrease tumor mass effect.

#18
8/11, 10:30 A.M.

ATYPICAL MULTICENTRIC "SCLEROSING HEMANGIOMA OF THE LUNG." A BENIGN MESENCHYMAL TUMOR OF THE PULMONARY INTERSTITIUM? Tariq H. Abdullah, M.D., Department of Laboratory Medicine and Pathology, Akbar Clinic, 1010 Harrison Avenue, Panama City, FL 32401.

A case of multicentric sclerosing hemangiomas of the lung with recurrent hemoptysis and previously unreported pneumothorax is presented. The variable histology of the tumor nodules presented the opportunity to make observations pertinent to the histogenesis of this tumor, which has been a subject of debate in surgical pathology for approximately twenty-five years. Our observations suggest that sclerosing hemangiomas of the lung arise from pluri-potential mesenchymal cells in the pulmonary interstitium. Focal differentiation of these interstitial cells, as noted in this case, into fibroconnective tissue, osteoid, fat, angiomatous tissue, and bone may help to explain the variable histology observed in case reports. This variable differentiation supports a mesenchymal histogenesis. Ultrastructural studies demonostrated that many of the interstitial cells had features of fibroblasts and myofibroblasts.

#19
8/11, 10:45 A.M.

CEFTRIAXONE AND CEFOXITIN IN LOWER RESPIRATORY TRACT INFECTIONS. Faroque Khan*, FCCP, Joseph Guarneri, Rajinder Chitkara, FCCP, Phyllis Della Lotta, Vincent LaBombardi, Queens Hospital Center, Jamaica, New York

In a prospective comparative clinical trial, we evaluated a new third generation cephalosporin, Ceftriaxone (RO 13-9904), IV 2gm b.i.d. with a second generation cephalosporin, Cefoxitin , IV 1-2gm q.i.d. Of 54 patients evaluated, 20 had no bacteriologic confirmation of infections, while the remaining 34 had 41 sputum isolates and 17 blood isolates. The isolates included Acinetobacter calcoaceticus var. anitratum (5), Haemophilus influenzae (10), Proteus mirabilis (3), Enterobacter cloacae (3), Escherichia coli (1), Klebsiella pneumoniae (1), Pseudomonas aeruginosa (3), Streptococcus pneumoniae (27), Beta hemolytic streptococci,Group A(1),Staphlococcus aureus (1), and Staphylococcus epidermidis (3). Bacterial sensitivities were determined by Kirby-Bauer disc diffusion technique The activity of both antibiotics against all gram-positive and most gram-negative organisms was similar. However, 3 of 4 isolates of A. calcoaceticus var. anitratum and 2 of 3 isolates of P. aeruginosa were sensitive to Ceftriaxone and resistant to Cefoxitin. The results of the clinical trial are summarized in Table I.

		Studied	Cured	Partial Cure	Failure	No Change
CEFTRIAXONE	Bacteriologic confirmation	17	15	2	0	0
	No bacteria isolated	11	10	0	0	1
CEFOXITIN	Bacteriologic confirmation	17	16	0	1	0
	No bacteria isolated	9	6	2	0	1

In conclusion compared to Cefoxitin, Ceftriaxone showed a broader in vitro activity against A. calcoaceticus var. anitratum and P. aeruginosa, offered no advantage in treatment of gram positive infections but offered a more convenient dosage regime. In addition, in infections with and without an etiologic diagnosis, therapy was successful in 25/28 patients treated with Ceftriaxone and 22/26 treated with Cefoxitin.

#20
8/11, 11:30 A.M.

DOCUMENTATION OF PHYSIOLOGIC EFFECTS OF THE QURAN IN MAN UTILIZING BIOFEEDBACK MONITORING TECHNIQUES. Ahmed Elkadi, M.D., Akbar Clinic, 1010 Harrison Avenue, Panama City, FL 32401.

Healing powers have been attributed to the Quran according to the Prophet's teachings and to the Quran itself. It is not yet known, however, how the Quran achieves the healing and whether its effects are physical, spiritual, or a combination of the two.

The subject of this study is to use biofeedback techniques to monitor any physiologic changes resulting from applying certain Quranic treatments to healthy persons. The following techniques are used: Photoelectric Plethysmography (PPG) for the assessment of vasomotor response through the measurement of skin temperature and blood flow; Electrodermal Response (EDR), measuring skin conductivity which is affected by sweat gland activity; and Electromyography (EMG), measuring the degree of muscle contraction or relaxation. These physiologic responses reflect the effects of the treatment on the autonomic and central nervous systems, which in turn affect a variety of body organs and systems. Data is being collected at present to assess the effect of various types of Quranic recitations and to compare them to other techniques and modalities of treatment. Preliminary data indicate that Quranic treatments result in definite physiologic changes which may be responsible for the healing effect of the treatments. The value of this approach is that it provides physical documentation of the Quranic effects which can be used for scientific evaluation and research.

#21
8/11, 12:00 P.M.

EFFECTS OF ISLAMIC FASTING ON LIPOPROTEINS AND IMMUNITY. Riyad Albibi, M.D. and Ahmed Elkadi, M.D., Akbar Clinic, 1010 Harrison Avenue, Panama City, FL 32401.

Islamic fasting, i.e., refraining from eating, drinking, and smoking from dawn to sunset for a period of one month, is expected to have some physical health benefits in addition to its spiritual benefits as a form of worship.

An earlier study has shown that Islamic fasting increases the total cholesterol level but the various lipoprotein levels were not measured. Other studies have shown that periods of starvation (which is quite different from Islamic fasting) lead to selective improvement of some of the cellular and humoral immune responses. The purpose of this study is to determine the effect of Islamic fasting on the lipoproteins in view of their relation to atherosclerosis and its effects on the various immune responses in view of their role in the protection against illnesses and cancer. The study is a prospective, controlled, randomized one, utilizing ten fasting and ten non-fasting persons as a control.

Our preliminary data showed no significant effect on the lipoprotein system. There is, however, an indication that some immune responses are enhanced by the Islamic fasting. Additional data is being collected, and a detailed outline of the results will be given at the time of presentation.

#22
8/11, 12:30 P.M.

DAWAH WORK BY THE PHYSICIAN. Muhammad Yunus, M.D. and Ahmed Elkadi, M.D., Akbar Clinic, 1010 Harrison Avenue, Panama City, FL 32401.

No other profession should be more related to Dawah, i.e., dissemination of the message of Islam, than the medical profession. The primary role of a physician is to care for the physical and mental well-being of his patients. Giving the patients the benefit of the Islamic guidance (even without carrying the Islamic label) will result in the improvement of their mental and possibly even physical well-being. To carry out the task of Dawah should, therefore, be considered an integral part of the professional duties of the Muslim physician. Besides, and in view of numerous emotional and physical factors, the patient is usually most receptive to any guiding efforts made by his treating physician. With regard to Dawah work, the Muslim physician has, therefore, his specific role to play as a physician, in addition to his general obligations as a Muslim member of the community.

Aspects of Dawah work by the physician can range from displaying Islamic material at his office, giving a practical example of Islamic values through his manners and actions, to direct and indirect presentation of Islamic teachings to his patients. The choice and level of utilization of each of these aspects must be based on tact and great wisdom. Any presentation, regardless of its format, should fulfill the following requirements for success:

It should be simple. It should be captivating and convincing. It must not arouse hatred, prejudice, or stubbornness. It should be based on reason and rationale. And it should create a genuine desire for learning.

It should also go without saying that the Muslim physician presenting Islam to others must possess the knowledge, the conviction, and the love of what he is presenting.

#23
8/12, 8:00 A.M.

CURRENT STATUS OF RENAL TRANSPLANTATION. Khalid M. Butt, M.D., Department of Surgery, Downstate Medical Center, Brooklyn, New York.

#24
8/12, 9:00 A.M.

CORRELATION BETWEEN QRS MORPHOLOGIES OF SPONTANEOUS PREMATURE VENTRICULAR CONTRACTIONS AND INDUCED SUSTAINED VENTRICULAR TACHYCARDIA

L. Zaman, R.G.Trohman*, N.C.Saoudi*, B.J.Huerta*, D.M.Estes*, A. Castellanos* and R.J.Myerburg*, Division of Cardiology, University of Miami School of Medicine, Miami, Florida

Previous observations from this and other institutions have indicated the resemblance of the QRS morphologies (morphs) of premature ventricular contractions (PVCs) initiating spontaneous ventricular tachycardia (VT) with QRS morph of the VT. To understand the mechanisms of spontaneous PVCs and sustained VT and their relationship with each other, we designed this prospective study to compare the QRS morphs of spontaneous PVCs and those of sustained VTs induced by programmed electrical stimulation (PES). Two-channel Holter-Monitor recordings (HMs) were obtained before, during and after PES in 8 patients (pts) with spontaneous PVCs and VT. Lead positions were not changed during serial HMs. QRS morphs of spontaneous PVCs and of VTs induced by PES were compared by two independent observers. Fifty two morphs of PVCs and 15 morphs of VTs were identified. Only 4/15 VTs (26%) had morphs identical (I) to those of 4/52 (7.6%) PVCs. Frequency of PVCs was analyzed in each pt (21 $\pm$ 11 hours of HM/pt), for all PVCs and for those with I morph to induced VT. Mean PVC frequency was 87 $\pm$ 140/hr (range = 4-347/hr) for all PVCs and 10 $\pm$ 6/hr (range = 6-16/hr) for those with I morph to induced VT. If a single-channel HM had been used, 11 PVC morphs would have been considered to have I morphs to those of induced VTs. We conclude: 1) The correlation between PVC morphs and those of VT induced by PES is an infrequent phenomenon, compared to previous observations for correlation between PVCs and spontaneous VT; 2) the electrophysiologic mechanisms of PVCs and sustained VT do not appear to have a direct relationship; and 3) therefore, suppression of PVCs by antiarrhythmic agents may not correlate with prevention of sustained VT.

#25
8/12, 9:15 A.M.

PRENATAL EFFECT OF NICOTINE DURING DIFFERENT TRIMESTERS ON POSTNATAL DEVELOPMENT. Ghazi M. Al-Hachim, Ph.D. and Faiza A. Mahmood, MSC
Pharmacology Department, College of Medicine, Baghdad University, Baghdad, Iraq.

Three different doses of nicotine were used daily for seven consecutive days and administered during each trimester into three groups of 10 pregnant mice. The doses used were equivalent to 10 cigarettes (900 ug/kg), 20 cigarettes (1800 ug/kg) or 30 cigarettes (400 ug/kg). For each trimester and for each dose, one sub-group of 10 offspring from drug or normal saline (control)-treated mothers were randomly selected and their postnatal developments were observed during the first and the second month of their age.

All the doses of the prenatal nicotine significantly reduced the body weight of the offspring at birth and postnatally.

Large doses of prenatal nicotine reduced the weight of the brain significantly during the second trimester. They also reduced the weights of the liver, heart, and brain significantly during the third trimester. However, prenatal nicotine showed no effect on the weight of the kidney and the adrenal gland.

These results indicate that large doses of prenatal nicotine may retard the functions and/or the development of the vital systems of the nicotine-treated progenies if they were exposed to nicotine during the second and third trimesters.

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#26
8/12, 9:30 A.M.

RADIATION EXPOSURES IN CLINICAL DIAGNOSTIC STUDIES.

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Medical Radiation is an important source to diagnose abnormalities,treat cancerous tumors,medical and industrial research.Application of radiation in medicine has increased with the rapid advancement in Nuclear technology and computers. It is important for the Physicians and the general public to be fully aware about the somatic as well as genetic effects of radiation.Radiation can be harmful if excessive and unnecessary clinical diagnostic examinations are performed.

Nuclear medicine,Computed Tomography,Angiography,X-Ray Fluoroscopic,Dental,Ultrasound and Nuclear Magnetic Resonance are some of the modeleties being widely used in hospitals. Radiation exposures varies from different studies.Chest X-ray radiation dose varies from 25 mR to 65 mR.This depends upon the techniques,calibration of the unit,trained and qualified technologists.A pregnant woman must not receive more than 500 mR/9 months duration to avoid radiation damage to her fetus.A surgeon can be exposed to high radiatin from fluoroscopic examination while inserting pace maker.Such studies can be performed with minimum radiatin exposure by using protective garments and less time.Similarly a patient can be exposed to 120 Rads from Iodine-131 radioactive isotope during thyroid scan.How safe these studies are and how we can achieve the optimal clinical objective with less radiatin ?

#27
8/12, 9:45 A.M.

SERUM AND LEUKOCYTIC MINERAL CONTENTS ANALYSIS IN PYOGENIC SKIN INFECTIONS.
Lotfy El-Saaiee, M.D., Department of Dermatology & Venereology, Faculty of Medicine, Al-Azhar University, Cairo, Egypt;Taymour Khalifa, M.D., Department of Dermatology & Venereology, Faculty of Medicine, Al-Azhar University, Cairo, Egypt; and Amina Ghaith, Ph.D., Department of Clinical Pathology, Faculty of Medicine, Al-Azhar University, Cairo, Egypt.

The serum, polymorphnuclear leukocytes, and lymphocytes of two groups of individuals were investigated for their contents of copper, zinc, calcium, magnesium, iron, and potassium. The first group consisted of 36 normal controls. The second group comprised 20 cases of acute pyogenic infections of the skin. All the metals were estimated by the atomic spectroscopy method, while the potassium was determined by emission. The results obtained from this study showed variations not only in the serum mineral content, but also in the leukocytes and lymphocytes content, which may be of diagnostic and/or prognostic importance.

#28
8/12, 10:00 A.M.

AGE RELATED CHANGES IN SUBRETINAL SPACE OF MONKEY. M.W. Rana and Yin Lok Lai, Departments of Anatomy and Ophthalmology, St. Louis University School of Medicine.

Two categories of cells, (1) macrophages and (2) outward displaced photoreceptor cells, were observed in subretinal space of retinas. Two types of macrophages were observed in the subretinal space. One type of macrophages were identical in their morophology to retinal pigmented epithelium (RPE) cells. Some of these cells were observed detaching from the RPE. The apical microvilli and basal invaginations of these cells were either markedly modified or completely abolished. Other types of macrophages were nonpigmented. In contrast to microvilli, cytoplasmic folds and pseudopodia were found on their surfaces. Some of these cells contained large numbers of lysosomes and others had few lysosomes. On occasion nonpigmented macrophages were observed attaching the outer segment of the normal retina, where a large number of photoreceptors were damaged. Large numbers of macrophages, containing phagocytozed outer segment materials, were also found in the retinal folds where the retina was detached from the RPE.

Displaced photoreceptor cells included both rods and cones. Their location and morphology in the subretinal space depended on the stage of their displacement. They were either found among the outer segment of the other photoreceptor cells or between the outer segment and apical surface of the RPE. These displaced photoreceptor cells were usually oval or spherical in shape some with a stalk extending into the outer nuclear layer. The cell located closer to the RPE were without stalks. There was a narrow space around the stalks indicating a change in the intercellular connection between these photoreceptor cells and Mullar cells, which normally denotes the outer limiting membrane. The Mullar cells related to the displaced photoreceptor cells had shortened and markedly reduced microvilli.

#29
8/12, 10:15 A.M.

NEURODIAGNOSIS: A LOOK TO THE PAST AND CHANGING TRENDS AT THE PRESENT.
Jagadishwar Devkota, M.D., Neuroradiology, University of Missouri-Columbia, Columbia, Missouri, U.S.A.

The diagnosis of the central nervous system disease has been a challenge partly due to inaccessible area of the body and very complex nature of the highly functional delicate tissues. Since early days of radiology and radiography several methodologies have been developed in succession always in search of betterment.

In the diagnosis of brain and meningeal pathology cerebral angiography of various modification was the definitive procedure. Later on computed tomography opened the obscured area of the complicated structure. In recent years CT became the most useful, informative, and reliable diagnostic modality. Since the role of cerebral angiography decreased following the extensive use of CT, digital subtration angiography emerged as a less invasive alternative to the angiography. More recently nuclear magnetic resonance has emerged as a promising diagnostic tool, where inaccessible areas by CT and other modalities are better evaluated.

In pediatric age group ultrasound is valuable in the cranial diagnosis. In recnet years intrauterine detection of cranial abnormality is a routine matter.

In spinal axis diagnosis we have come a long way since the days of gas myelography to computed tomography and nuclear magnetic resonance imaging.

A concise elaboration of each diagnostic modality will be presented.

#30
8/12, 10:30 A.M.

ANOREXIA NERVOSA. M. Basheer Ahmed, M.D., Forth Worth, Texas 76104

Anorexia Nervosa is an eating disorder characterized by severe and prolonged refusal to eat with severe weight loss and amenorrhea. Recent reports of increasing incidence of this illness among young female singers, models and television personalities have envoked an interest in anorexia nervosa and its young victim among clinicians in North America.

The chief symptoms of anorexia nervosa are self-induced starvation, binge eating, and purging in women under the age of twenty-five. The normal weight loss is usually more than 20% of the original body weight. Anorexics also have a distorted body image, see themselves as fat, although they are actually thin. They have obsessions about food refusal, use of diet pills, emetics, diuretics, and laxatives. Excessive activity and exercise occur in these patients. Amenorrhea, lanugo, bradycardia, and hypotension are equally present in the anorexic patient. Many patients report ill health, psychological impairment, shame, guilt, withdrawal, and isolation. It is estimated that about four to ten percent of serious cases die.

Most laboratory findings are nonspecific and are not unique since they occur in other forms of starvation and weight loss. However, it is noted that the primary defect is located in the hypothalamus which results in impaired release of gonadotropin releasing hormone. This is the primary cause of amenorrhea.

A wide variety of treatments have been reported with a wide range from emphasis on weight gain only with complete disregard of the psychological problems to psychoanalytical psychotherapy extending over several years with disregard to low weight. Similarly, a wide variety of medications, e.g., insulin, thyroid hormone, gonadotropin, antidepressant medications, have been tried with minimum effect. A multi-disciplinary treatment approach will be discussed.

#31
8/12, 11:00 A.M.

EFFECT OF PROSPECTIVE PAYMENT SYSTEM ON THE PRACTICE OF MEDICINE. Hugh Ritter M.D.,Trustee,Board of Trustees, American Medical Association, 535 North Dearborn Street, Chicago, IL 60610.

The new Diagnosis Related Group, or DRG, program for reimbursing hospitals under Medicare is now the law. So hospital administrators, trustees, and staff physicians must work together to try to make the program work. At the same time, the general public should understand that when patients are hospitalized under the DRG program, things might be different from what they have received--or expected--in the past. If we physicians--and they--ultimately find what many of us believe now is true, that a program such as the DRG's simply won't work, that quality patient care cannot be compatible with restrictions and limitations and nationally imposed averages and standards, then the people will have to back us up when we go to Congress and to the Administration to bring about changes.

#32
8/12, 11:30 A.M.

THE IMPACT OF MEDICARE'S PROSPECTIVE PAYMENT SYSTEM (PPS) ON HOSPITALS AND PHYSICIANS. Charles P. Swisher, Senior Vice President, Missouri Hospital Association, P.O. Box 60, Jefferson City, Missouri 65102.

The passage of Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) and the Social Security Amendments of 1983 introduced major changes in the way hospitals are reimbursed by the Medicare program. Payment to hospitals for medically necessary inpatient services will no longer be made on a reasonable cost basis. Hospitals are now at "risk" for the cost of services that are provided. Medicare's payment will be based on one of 468 Diagnosis-Related Groups (DRGs). Presently, a blending of hospital-specific, regional and federal rates occurs. However, by October 1, 1986, the Medicare DRG rates will be 100 percent federal rates, with the only adjustment being area wage indexes.

The Medicare PPS legislation provides for the study of physician payments on the basis of DRGs. The Health Care Financing Administration has until October 1, 1985, to complete the study of physician DRG payments and present their recommendations to Congress. Clearly, physicians will also face the challenge of different incentives when providing services to Medicare patients.

The new Medicare payment system has the potential of creating conflict between hospitals and physicians as we operate under new payment incentives. The experience to date has been cooperation and increased understanding by physicians of the problems and limitations facing hospitals. The challenge to hospitals and physicians in the future will be the delivery of high-quality care in a cost-effective manner. The incentives under Medicare PPS have the potential of creating substantive changes in the health care delivery system if payments are adequate. However, Congress is already considering arbitrary reductions in Medicare DRG payments.

#33
8/12, 12:00 P.M.

FEDERAL GOVERNMENT-HEALTH CARE FINANCING ADMINISTRATION PERSPECTIVE OF PROSPECTIVE PAYMENT SYSTEM. William R. Blake, Jr., Associate Regional Administrator for Financial Operations, HCFA, 601 East 12th Street, Room 277, Kansas City, MO 64106.

The presentation will provide a Federal Government - Health Care Financing Administration perspective regarding the implementation of the Prospective Payment System for hospitals under the Medicare program for the elderly. This program was signed into law by President Reagen on April 22, 1983, with implementation beginning October 1, 1983. The presentation will also focus on the possible extension of Diagnosis Related Group Classification (DRGs) to other Medicare program payments.