

EXCERPTS FROM PERSIAN MEDICAL LITERATURE

ANTI-HCV AB-POSITIVE CASES AMONG THALASSEMIC PATIENTS REFERRED TO A UNIVERSITY HOSPITAL IN KERMAN

Multiple transfusions expose thalassemic patients to a high risk for hepatitis C infection. The present study was carried out to estimate the frequency of anti-HCV Ab-positive cases among 107 thalassemic patients referred to a university hospital in Kerman. One hundred and seven children were also chosen as the control group. ELISA (generation II) was used as the first-line screening test and RIBA (generation I) for reconfirming the primary positive results. The mean age (\pm SD) was 9.2 (\pm 4.3) and 8.9 (\pm 4.2) years in the thalassemic patients and the control group, respectively. Males constituted 54.9% and 60.8% of the case and control groups respectively. Anti-HCV Ab was positive in 22.4% of the thalassemic patients while no positive cases were present in the control group with a statistically significant difference ($p < 0.001$). We conclude that the screening of donated blood for anti-HCV Ab detection before its transfusion has a significant role in reducing the rate of HCV transmission in high-risk groups.

Authors: Vahidi AA, Taheri A, Nikian Y.

Source: *Journal of Kerman University of Medical Sciences*. 2000; **7**: 110-4.

QUALITY OF HEARING IN ELEMENTARY SCHOOL STUDENTS IN URMIA

The goal of this cross-sectional study was to determine the frequency of hearing loss among the public elementary school students of Urmia, northwest of Iran in the academic year 1999-2000. A total of 1500 students (750 girls) were randomly chosen in two stages and enrolled into this study. The hearing status of these children was assessed by audiometry, which revealed normal and abnormal hearing in 93.3% and 6.6% of children respectively. An overall 5.8% hearing loss was found in this population including 4.27% bilateral and 1.53% unilateral hearing loss. A total of 3.27% of the population suffered from conductive, 2.4% sensorineural and 0.14% mixed hearing loss. The external ear canal abnormalities, found in 5.1% of subjects, were mostly due to the presence of cerumen (3.1%). Tympanic membrane abnormalities were found in 14.4% of the subjects. Abnormal tympanogram of both ears was observed in 13.23% of the children, mostly in the form of type C (5.37%). This condition was more common in girls ($p < 0.05$). Overall 7.6% of screened students required medical care and 1.13% of them required rehabilitation. Unfortunately, the level of general information about hearing problems was very low among the students (39.1%), their parents (36.8%), and their teachers (18.4%). According to the results, hearing loss is prevalent among students of Urmia and screening programs are necessary for the detection of this problem.

Authors: Ghanbarbeigi-Taheri M, Moosavi A, Keyhani M.

Source: *Journal of Iran University of Medical Sciences*. 2000; **7**: 109-14.

REINFECTION RATE OF *HELICOBACTER PYLORI* ONE YEAR AFTER ITS ERADICATION

Helicobacter pylori plays an essential role in the occurrence of gastritis, gastric ulcer, duodenal ulcer, gastric cancer and gastric lymphoma. The eradication of *H. pylori* prevents ulcer recurrence and the complications associated with it. In developed countries, after eradication, the recurrence of *H. pylori* infection is rare,

Excerpts from Persian Medical Literature

whereas in developing countries, recurrent infection is prevalent and its incidence varies in different geographic locations. The aim of this study was to assess the incidence of recurrent *H. pylori* infection in Iranian patients one year and longer after its eradication. A total of 110 patients (57 men) aged 13 to 80 years with initial diagnosis of duodenal ulcer (85.3%), gastric ulcer (2%) and severe gastritis (12.6%) were enrolled in the study. Initial diagnosis of *H. pylori* was made by at least one of the tests comprising rapid urease test, histology or culture. These patients received different anti-*H. pylori* regimens and eradication was confirmed at least four weeks after cessation of therapy by negative C14 urease breath test (UBT). After a mean duration of 17 (12 to 39) months since the first negative C14 UBT, the patients were again assessed according to their clinical manifestations and by another C14 UBT urease test. Twenty-one (19.1%) out of 110 patients had a positive C14 UBT at the end of the first year, reflecting recurrence of infection after this period. Factors such as age, sex, number of family members, gastrointestinal complaints and smoking, were not predictive in the causation of recurrent infection among the patients. Overall, the rate of recurrent *H. pylori* infection was high in Iran (19.1%). So the patients with gastric or duodenal ulcer, especially those with complicated ulcers, in whom eradication of infection has been established one month after the treatment, should be followed up for an extended period of time and administration of acid-reducing drugs should be continued.

Authors: Zahedi MJ, Malekzadeh R, Amini M, et al.

Source: *Journal of Medical Council of I.R.Iran.* 2001; **18:** 4.

TREND OF SMOKING PREVALENCE IN IRAN FROM 1991 TO 1999 BASED ON TWO NATIONAL HEALTH SURVEYS

In order to predict changes in the prevalence of smoking in Iran from 1991 to 1999, 1/1000 households throughout Iran were chosen from each of the two national health surveys by cluster sampling. Data related to smoking were obtained via questionnaire from 15 to 69 year-old participants in 1991 (n=27, 346) and from 15 to 99 year-old subjects in 1999 (n=36, 966), respectively. The prevalence of cigarette smoking showed a decline from 14.6 to 11.7 percent in the 15- to 69-year-old age group. Although the use of hookah and traditional pipe (Chopough) has decreased from 3.8 to 3.5 percent, but it has increased from 0.8 to 1.4 percent in the 15 to 24 year-old age group. Coincident with health educational programs, absence of massive promotional campaigns by tobacco companies and increasing tobacco taxes have led to a decrease in the prevalence of smoking. Determination of possible etiologies of increased smoking among young individuals is a subject of further research.

Authors: Mohammad K, Noorbala AA, Majdzadeh R, et al.

Source: *Hakim Research Journal.* 2000; **3:** 290-7.

RICKETS AND OSTEOMALACIA: A REVIEW OF 797 CASES

Rickets and osteomalacia are characterized by impaired mineralization of the bony matrix. In some Asian countries they are common disorders and may represent a possible health problem. We studied clinical, biochemical and radiological features of these disorders in our patients. In a 10-year period (1989-1998), we studied all cases of osteomalacia and rickets attending the Rheumatology Center of Imam Reza Hospital, Mashhad, northeast Iran. A total of 797 patients (795 females) aged between 8 and 74 years were included in the study, all of whom were treated with vitamin D and calcium. Most cases were in their second decade of life. Bone tenderness (96.4%), most common in knee, back and pelvis; muscle weakness (81%); abnormal gait (43%); and bone deformity (19.6%) often in the form of genu valgus and genu varus, were among the important clinical findings. Osteopenia (63%), epiphyseal growth plate alterations (74.4%), ground glass appearance (26.8%) and Looser's zones (26.5%) were important radiologic findings. The response to treatment with vitamin D and calcium was significant. Only four patients were vitamin D resistant. Rickets

Excerpts from Persian Medical Literature

and osteomalacia are common disorders in our region. Females, especially in growing age are often involved. The most common cause of these two conditions is vitamin D deficiency, probably due to inadequate sun exposure. We suggest that women should be educated for taking adequate sun exposure and dairy products should be fortified with vitamin D.

Authors: Hatef MR, Joukar MH.

Source: Medical Journal of Mashhad University of Medical Sciences. 2000; 43 (68): 18-27.

ANTHROPOMETRIC MEASURES OF IRANIAN YOUNG MALE STUDENT ATHLETES

Anthropometric measures such as height, weight, and body composition have long been indispensable measurements in medicine and sport sciences. The concept of "obesity" that is based on the measurement of height and weight can be the underlying factor for numerous negative health consequences. In the study of successful sport performance and in the selection of athletes for competitions, body build-up and body composition play important roles. Body mass index (BMI), which is derived from the measurement of height and weight, is also useful. It has been shown that BMI is highly correlated with concepts such as maximum oxygen consumption (VO₂ max) that is a reliable predictor of successful performance in many athletic activities. This study was conducted to determine the mean values of height, weight, and BMI in 840 young male student athletes participating in the Ministry of Health and Medical Education's Olympiad held in the summer of 1998 in Shiraz. Results showed that the means±SD for weight, height, and BMI were 69.25±9.57 kg, 175.74±6.63 cm, and 22.4±2.63, respectively. Since there has been no systematic investigation in this field in Iran, the observed results can be suggested as norms for male athletes. Further studies are required for determining the ideal ranges of anthropometric measures in Iranian athletes.

Authors: Asadi MH, Sayah M.

Source: Teb va Tazkieh, 2000; 39: 28-33.

A REVIEW OF MENTAL RETARDATION AND ITS ETIOLOGIES IN CHILDREN

Mental retardation in children is a major problem in any society. Taking care of a mentally retarded child creates many emotional and financial difficulties for the family. To ascertain the etiologic factors causing mental retardation, all children with intelligence quotient (IQ) less than 70, who were referred to Mofid Children Hospital during a 9-month period (September 1996 to May 1997) constituted the subjects of this study. One hundred and fifty children aged 4 to 15 years were included in the protocol. Based upon diagnostic studies, mental retardation in 20% of the cases (30 of 150) was attributed to prenatal causes, among which genetic disorders, chromosomal abnormalities, metabolic diseases and intrauterine infections were the most important causative factors. In 24% of the cases (36 out of 150), mental retardation could be attributed to parturition (asphyxia, premature labor, traumatic birth and twin delivery). Among postnatal factors, which caused mental retardation in 27.3% of cases (41 out of 150), infections, trauma, intracranial hemorrhages and hypothyroidism constituted the most important etiologies. We could not diagnose the causes of mental retardation in 43 (28.7%) of the patients. The majority of these children were aged 4-5 years. Seventy-two percent of them had motor developmental delay and 65% suffered from epilepsy. In our study 42.7% of patients were offsprings of consanguinous marriages. Prevention of premature birth when feasible, treatment and control of infectious diseases, paying more attention to prevention of trauma and accidents, performing screening tests at birth for early diagnosis of some metabolic diseases (e.g. phenyl kenonuria and hypothyroidism) and finally avoiding consanguineous marriages (with a history of mental retardation in the family) are some ways we recommend for preventing the birth of children with mental retardation.

Authors: Hassanpour-Avanjy SH, Ghofrani M.

Source: Journal of Iran University of Medical Sciences. 2000; 7 (21): 182-190.

CONFORMITY: A MAJOR SOURCE OF HUMAN ERROR

IN MEASURING BLOOD PRESSURE

Conformity is the convergence of individuals' thoughts, feelings or behavior toward a group norm. In clinical issues such as measuring the blood pressure (BP), conformity occurs when a physician takes the BP of a patient and then notices significantly different results recorded by his or her colleagues in the chart. In other words, the charted figures act as a majority to impress the individuals' perception and might make the clinician accept the correctness of the chart figures and/or report a false BP. To investigate the suggestiveness of BP charts, we asked 68 medical interns to measure a series of 10 blood pressure samples: three without charts, three with true charts and four with fake charts. Accepting the truth of the fake charts and a total error more than two standard deviations from the normal individual's error were defined as public and private conformity and their prevalence were 38% and 26.9% respectively. The errors were correlated linearly ($b=0.31$) to the hidden suggestion of chart figures ($r = 0.45$). One third of interns were actually mistaken directly by the fake charts' figures and the impact of conformity was much more than the simple errors. It is concluded that availability of BP charts triggers a conformity process which could be a major cause of human error in a very common clinical setting, namely measurement of BP. It is suggested that perceptual independence be promoted in medical educational systems and the charts of critically ill patients be kept at the nursing stations to avoid their suggestive power on medical staff. It is further suggested that the role of conformity be examined in other clinical settings like cardiac auscultation in which a higher prevalence of conformity (specially to a reference group like more experienced cardiologists) is predicted.

Authors: Azarmina P, Safarinejad P.

Source: *Olum Shenakhti (Journal of Cognitive Sciences)*. 2000; **2**: 1-10.