

EXCERPTS FROM PERSIAN MEDICAL LITERATURE

PERSONAL AND PSYCHOLOGICAL ASPECTS OF SUICIDE IN IRANIAN CHILDREN

Regarding the hazards of suicide as a psychiatric emergency and its tensions and side effects, this study was conducted on children referred to Loghman-Hakim Hospital (Tehran, Iran) due to attempted suicide during the years 1999 and 2000. We reviewed the medical records of children diagnosed as suicidal cases. Age, sex, time and means of suicide, how the parents became aware of the matter, and the cause of suicidal behavior were all collected in a data sheet. The medical records with insufficient data were excluded. Sixty children aged between 6 and 13 years met our criteria. They included 37 males and 23 females. Results revealed that suicide attempts mostly occurred in autumn, during the weekend and between 6pm and 11 pm. Divorce or separation, and academic difficulties were the main background factors. Suicide attempts were mainly practiced through the use of drugs (93.4%). Depression constituted the most common underlying disease. It was also revealed that children had learned about suicide through television programs, or had witnessed suicidal attempts by a member of their family, most commonly their mothers. Further studies are required to determine the role of psychiatric, social and biological aspects of this problem. However, a KAP study to assess family training may be helpful.

Authors: Zahireddin AR, Seghattoleslam T.

Source: Pejuhandeh. 2000-01; **5 (4):** 353-8.

HYDATID CYST IN CHILDREN

Regarding the relatively high prevalence of hydatid cyst in Iran and the lack of general knowledge in this field, this study was conducted on patients referred to Taleghani Hospital (Tehran, Iran) from 1988 to 2000. The medical records of 32 cases of hydatid cyst were studied. Data pertaining to age, sex, clinical manifestations, type and site of cyst, and the therapeutic procedure used was noted. Finally, the results of this study and the followed-up of patients after surgery were analyzed. The mean age of these patients was 8.2 ± 2.2 years (mean \pm SD) and 38% of the cases were female. *Echinococcus granulosus* comprised 94% of the cases. Cysts were found in the lungs and the liver in 56% and 28% of cases, respectively. The clinical manifestations of pulmonary hydatid cyst were cough, fever and dyspnea, and those of hepatic hydatid cyst were abdominal mass, hepatomegaly and fever. Ninety-four percent of the children underwent surgery and recurrence occurred in 8% of these cases. In children the prevalence of hydatid cyst infection increases with age, and contrary to adults, the lungs are the most frequently affected organs. Further studies are recommended to find the etiologic factors of hydatid cyst in children.

Author: Sadeghian N.

Source: Pejuhandeh. 2000-01; **5 (4):** 359-64.

TOTAL ENERGY REQUIREMENT IN ADULTS: A PROSPECTIVE STUDY

Determining the daily energy allowance and comparing it with the energy intake of different societies could be a suitable guideline for evaluating nutritional status. The present study was performed to determine the energy intake of people residing in a specific district in Tehran and to compare it with recommended allowance values. Energy requirement was measured according to the WHO/FAO and recommended dietary

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allowances (RDA) recommendations. Four-hundred and three individuals, including 145 men and 151 women aged between 25 and 50 years, and 57 men and 50 women over 50 years, were selected randomly from among the residents of Tehran. Height, weight, waist and hip size were all measured using standard techniques, and body mass index (BMI) and waist to hip ratio (WHR) were calculated. With respect to the allocated coefficients (per kilogram and basal energy), the mean energy allowance was determined for different age and sex groups and compared with the values recommended by WHO/FAO and RDA. Energy intake to basal metabolism ratio of less than 1.27 was used to identify under-reporting. Physical activity was determined according to the lipid research clinics (LRC) questionnaire.

The prevalence of overweight and obesity was significantly higher ($p < 0.001$) in females in comparison to males and in young females in comparison to older individuals ($p < 0.05$). Less than a third of the population had high physical activity. Physical activity was significantly less in females than males ($p < 0.01$). Total energy requirement in different societies was less than those recommended by RDA. Under-reporting was recorded in 40% in the female societies.

In order to improve nutritional patterns and to diminish the prevalence of obesity, a change in lifestyle is strongly recommended for people residing in Tehran. Meanwhile, for exact estimation of energy intake, especially in women, revised methods are required.

Authors: Mirmiran P, Mohammadi F, Allahverdian S, Azizi F.

Source: Pejuhandeh. 2001; **6 (2):**157-65.

ANTIMICROBIAL EFFECTS OF AMPICILLIN AND ESSENTIAL OIL OF *ZATARIA MULTIFLORA*

The essential oil of *Zataria multiflora* was extracted by steam distillation and its antimicrobial effects on *E. coli* and *S. aureus* were studied. Disc diffusion method was used to evaluate the inhibitory zone of microbial growth for 1, 1/2, 1/4, 1/8, 1/16, 1/32 and 1/64 dilutions of the essential oil at four stages with the fresh extract, 1, 2, and 3 months before the experiment. The antimicrobial effect was also studied against a microbial load of 10^4 , 10^5 , 10^6 and 10^7 per mL to predict minimal inhibitory concentration (MIC) and minimal bactericidal concentration (MBC). Ampicillin was utilized under the same condition and the results were compared with that of *Zataria multiflora*. Fresh *Zataria multiflora* oil in 1/8 dilution inhibited *E. coli* and *S. aureus* growth with 30 mm and 22 mm inhibition zones, respectively. Ampicillin, at 4 µg/mL, showed bactericidal activity against *E. coli* with an 11 mm zone of microbial growth inhibition. Ampicillin was bactericidal against *S. aureus* at 6 µg/mL with a 23 mm growth inhibition zone. The essential oil showed bactericidal activity within a shorter time than ampicillin. Considering the limited use of chemical antimicrobials due to the development of drug resistance, it seems that the essential oils of *Zataria multiflora* are good antimicrobial substitutes for the preservation of food and for controlling diseases.

Authors: Rasooli I, Rezaei MB.

Source: Hakim. 2001; **4:** 219-25.

GOITER AND URINARY IODINE IN IRANIAN SCHOOL CHILDREN

Iodine deficiency disorders (IDD) were prevalent in Iran before 1989, before the national salt iodization program of 40 µI/µg per day of salt was initiated. Despite a comprehensive IDD control program, less than 50% of households consumed iodized salt in 1994. A law for mandatory production of exclusively iodized salt was passed in 1994. The purpose of this study was to evaluate goiter and urinary iodine excretion 2 years after this law was passed. In each of the 26 provinces studied, 30 clusters of 40 school children (total 36178) were examined for goiter and classified according to WHO classification. Urinary iodine excretion was measured in 2917 children by the digestion method. Goiter was endemic in all provinces, but the majority had a small (grade 1) goiter. Median urinary iodine was 20.5 µg/dL. Eighty-five percent had urinary iodine greater than 10 µg/dL. In all 26 provinces, the median urinary iodine was above 13µg/dL, 6% to 9% of the school children had urinary iodine less than 5 mg/dL. No significant differences were observed between boys

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and girls or rural and urban residents with respect to urinary iodine excretion. It was seen that 7 years after beginning salt iodization and 2 years after compulsory iodization of table salt, urinary iodine excretion has reached adequate levels in school children. Considering the percentage of households consuming iodized salt and that the IDD program is well followed, it is concluded that iodine deficiency has been controlled in Iran.

Authors: Azizi F, Shaikholeslam R, Hedayati M, et al.

Source: Teb-va-Tazkiyeh. 2001; **40**: 44-51.

AN EPIDEMIOLOGICAL STUDY ON STILL BIRTH, NEONATAL MORTALITY AND THEIR DETERMINANT FACTORS IN KORDESTAN PROVINCE (WESTERN IRAN) IN 1998

Studies show that every year, 14 million deaths occur in the first year of life worldwide, 7 million of which are neonates. Many factors, including the state of health of the mother, play a significant role in predisposing to still birth and neonatal death. This study was conducted to determine the epidemiology and risk factors involved in stillbirth and neonatal death in Kordestan Province in Western Iran, during 1998. In a population-based case control study, 133 cases, including 40 still births and 93 neonatal deaths, were compared with 266 controls. Cases and controls were frequently matched based on place of residence in their rural or urban areas. The odds ratio of variables for still birth and neonatal death was estimated and data were analyzed by Chi-square, Mantel Haenzel and Woolf tests.

Results showed that the rate of stillbirth and neonatal mortality was 17.7 per thousand births in the province. It was 19.1 and 16.1 in boys and girls and 22.2 and 13.8 in urban and rural areas, respectively. The proportions of neonatal mortalities during the first 24 hours, 2 to 7 days after delivery, and 8 to 28 days after delivery were 54, 21 and 25%, respectively. Significant determinants of still birth and neonatal mortality were high-risk pregnancy and illiteracy. The estimated odds ratio for high-risk pregnancy and illiteracy was 2.3 (95% confidence interval = 1.4-4.7) and 3.1 (95% confidence interval = 1.4-6.5), respectively.

It is concluded that in order to reduce the perinatal mortality rate in this region, the quality and coverage of family planning services must be imposed and more attention must be paid to women with high-risk pregnancies, especially during the perinatal period. It is also necessary to improve the level of education of the population.

Authors: Esmailnasab N, Majdzadeh SR, Nadim A.

Source: Hakim. 2002; **4**: 272-7.

SEROLOGIC INVESTIGATION OF CRIMEAN-CONGO HEMORRHAGIC FEVER IN IRAN USING ELISA TECHNIQUES

Crimean-Congo hemorrhagic fever is a zoonotic arboviral disease caused by a virus from the Nairovirus genus and Bunyaviridae family and is transmitted from infected domestic animals to humans through tick bites and from human to human, nosocomially. The mortality rate of this disease could be as much as 30% of infected people.

This study was conducted from June 2000 to January 2002. In a wide-spectrum survey that was carried out in the arbovirus and viral hemorrhagic fever laboratory of Pasteur Institute in Iran in collaboration with WHO referral center for arboviruses and viral hemorrhagic fever, Pasteur Institute of Senegal, using specific serologic ELISA techniques for screening the IgM. Out of 1205 sera collected from domestic animals and tested by ELISA, 358 (29.7%) had IgG antibodies against the virus of these diseases.

From this study it is evident that the virus of Crimean-Congo hemorrhagic fever is the main factor causing viral Crimean-Congo hemorrhagic fever in Iran. The presence of high titers of IgG in the serum of domestic animals shows that these animals are highly infectious in the initial stage of disease and they could

infect humans at this early stage.

Authors: Chinikar S, Fayaz A, Mirahmadi R, Mazaheri V, Mathiot C, Saron MF.

Source: Hakim. 2002; 4: 294-300.

SELF-MEDICATION AMONG IN-PATIENTS OF QAZVIN TEACHING HOSPITALS

Self-medication is referred to drug consumption without diagnosis and prescription of a physician. It results in over dosage of drug consumption in the society and may induce harmful side-effects.

To study self-medication among in-patients of Qazvin teaching hospital, a descriptive study was conducted, four hundred patients who were admitted in Qazvin teaching hospitals were interviewed through a questionnaire.

About 83% committed self-medication. The most prevalent form of drugs was tablets (41%) and the most common causes for which they used drugs were respiratory, psychiatric and digestive complaints, respectively. The most common factors underlying self drug consumption were negligence of the disease (30%) and inability to afford the visit fees of the physicians (14.7%).

Administered drug consumption was more prevalent among 40 to 66-year-old patients (86.5%) and less prevalent among 0 to 12-year-olds. It was also more prevalent among government employees and families with members more than 10. It was also very common among people having university degrees, and non-medical insured patients.

Since drug production demands high expenses and self-administration may induce harmful side-effects, a reform in the cultural and educational habits of patients is recommended.

Authors: Asefzadeh S, Anbarloei M, Habibi S, Rezaei M.

Source: The Journal of Qazvin University of Medical Sciences.2002; 20.