

EXCERPTS FROM PERSIAN MEDICAL LITERATURE

EFFECT OF *MORUS ALBA* LEAF EXTRACT ON STREPTOZOCIN-INDUCED DIABETES IN MICE

The *Moruseae* family is widely used in traditional medicine for lowering blood sugar level. In this study, the effect of *Morus alba* leaf extract, on the blood sugar level of mice, was investigated. Extraction was carried out by the maceration method and measurement of blood sugar level was made by the orthotoluidine method. In order to induce diabetes in mice, streptozocin (100 mg/kg) was injected intraperitoneally. Various doses of aqueous, alcoholic and hydro-alcoholic extracts of *Morus alba* leaves (150, 200, 300 and 350 mg/kg) were administered orally. Statistical analysis was done by ANOVA and Newman-Keuls tests. Results showed that the 250 mg/kg of hydro-alcoholic extract had the most significant effect in lowering the fasting blood sugar level of mice. Using the glucose tolerance test, optimal blood glucose lowering effect was observed 75 minutes after administration of this extract. Oral administration of glibenclamide (20 mg/kg) did not decrease the blood sugar of diabetic mice significantly. After administering 1600 mg/kg of the extract no fatal effect was observed within 72 hours. It seems that *Morus alba* leaf extract lowers blood sugar level in mice by increasing cellular glucose uptake.

Authors: Arzi A, Zahedi S, Ghanavati J

Source: *Ahvaz Journal of Medical Sciences*. 2001; **30**: 62.

TYPES OF MALNUTRITION IN CHILDREN UNDER 5 YEARS IN THE URBAN AND RURAL AREAS OF IRAN

Protein-energy malnutrition (PEM) is a common nutritional problem in children under 5 years in Iran. A national survey conducted during 1991 and 1995 revealed that the prevalence of malnutrition in children under 5 was relatively high in both urban and rural areas. Regarding the harmful outcomes of malnutrition, including the higher mortality and morbidity rates, decreased learning, physical and mental abilities, and also with respect to the lack of a clear epidemiological picture of malnutrition in Iran, this descriptive study was conducted on 34,200 children under 5 years of age in 1998. The prevalence of malnutrition was estimated with a probability of 95% based on weight/age, height/age, and weight/height indices. Results related to children less than 5 years of age were taken into account and compared with data for other countries. Our results revealed that 15.4% of the children suffered from moderate to severe malnutrition. According to the weight/height index, 4.9% and 10.9% of the children had wasting and moderate to severe weight loss according to the weight/age index, respectively. It is concluded that PEM is still a major problem in Iran and we recommend authorities, especially those in the health sector to arrange some programs for the improvement of the current state of malnutrition.

Authors: Sayari AA, Sheykholeslam R, Naghavi M, Abdollahi Z, Kolahdouz F, Jamshid-Beygi E

Source: *Pejuhandeh*. 2000-1; **5 (4)**: 9.

CERVICAL ROOT LESIONS AND PERIPHERAL NERVE INJURY IN IRANIAN WRESTLERS

Injuries from wrestling account for a considerable number of sport injuries. Wrestling is the national sport of Iran and the number of wrestlers is increasing in this country. Cervical root and associated peripheral nerve lesions are among the most commonly experienced injuries in this sport. Regarding the lack of studies in this field, the prevalence of probable nerve roots involved in cervical radiculopathy as well as associated predisposing factors in 40 Iranian professional wrestlers, aged between 36 and 63 years with at least 10 years of wrestling experience was studied. These wrestlers were examined clinically and then by electrodiagnostic studies and finally were referred for magnetic resonance imaging (MRI) study of cervical spines. The following results were obtained by electrodiagnostic studies (EDS) and MRI in 40 and 21 wrestlers, respectively. About 45% of cases studied by EDS had cervical radiculopathy. All patients studied by MRI were reported to have one type of cervical spine involvement by a radiologist as follows: degenerative changes 61%, disc protrusion 28%, cervical canal stenosis 19%, and disc extraction 9%. The most commonly involved nerve root in the electrodiagnostic study was bilateral C6 root lesion and the most commonly involved level in MRI was C5-C6. There was no statistically significant correlation between root lesions, previous nerve injury, age of wrestler and years of wrestling. In comparison to EDS, MRI had 41.6% specificity and 100% sensitivity in evaluating cervical root lesions. Twenty-seven percent of cases had associated peripheral nerve lesions of the upper limb. Among these, bilateral carpal tunnel syndrome (15%) and Tardy ulnar palsy (12.5%) were the most frequent findings. There was a high statistical correlation between ulnar nerve lesions and previous elbow injury. Fifty-four percent of patients had concomitant peripheral nerve injury and cervical root lesions (double crush syndrome). Considering that wrestling is a national sport in Iran, measures should be taken to prevent cervical nerve root lesions. Isometric exercises of the neck muscles are of help in this regard.

Authors: Torkaan F, Raayegani SM, Bahrami MH

Source: *JIUMS*. 2001;8 (24): 217.

TESTICULAR BIOPSY AND INTRACYTOPLASMIC SPERM INJECTION IN MALES WITH NONOBSTRUCTIVE AZOOSPERMIA

Testicular sperm extraction and intracytoplasmic sperm injection (TESE/ICSI) was performed on 30 males with nonobstructive azoospermia. All patients were referred to the Fertility Department of Mirza Kouchak Khan Hospital, Tehran, Iran in 1998. The extracted sperm were injected in metaphase II of spouse oocytes. Depending upon spermatogenesis, all male patients were diagnosed and categorized into three groups, histologically: 1-hypospermatogenesis group (17 patients), 2-sperm maturation arrest group (8 patients), and 3-pure Sertoli-cell group (5 patients). The mean age of males and females was 37 and 29 years, respectively. The mean FSH level was 22.8 IU, and the volume of the testis was 10±5 mL. Sperm extraction from testicular biopsy was successfully retrieved in 21(70%) males. From the 123 oocytes which were injected in metaphase II, 71 (57.7%) showed fertilization and were cleaved. The main sperm retrieval was 15 (71.4%) males in the hypospermatogenesis group, and 6 (27.7%) males in the sperm maturation arrest group. In the Sertoli-cell group no sperm was extracted. From the 21 cases with embryo transfer, clinical pregnancies were obtained in four (19%) cases and ongoing pregnancies in three (14.3%) cases. We observed that physical examination, testicular volume determination, hormonal assay and testicular biopsy are essential but not sufficient in sperm extraction. Despite the initial negative biopsy, which showed impossible sperm extraction, it was finally extracted in 70% of patients. Therefore, TESE/ICSI offers a new chance of pregnancy to these infertile couples and must be considered as a good modality in the treatment of infertility.

Authors: Salsabili N, Sadri M, Akbari-Asbagh F, Kairkhah F, Pourmand GhR, Asadi MH

Source: *Kowsar Medical Journal*. 20001; 6(3): 27.