

EXCERPTS FROM PERSIAN MEDICAL LITERATURE

IDENTIFICATION OF LEISHMANIA SPECIES USING MONOCLONAL ANTIBODIES IN ISFAHAN

Isfahan is one of the major foci of cutaneous leishmaniasis in Iran. According to the epidemiologic studies, both urban and rural forms have been reported in Isfahan. Accurate identification and characterization of Leishmania is essential for the control of the disease. Several different molecular techniques including the use of monoclonal antibodies have been developed for the identification of the organism. In the present study, specific monoclonal *L. major* (T1, T9), *L. tropica* (T10, T11) and *L. donovani* (D2) antibodies were used to identify and characterize the Leishmania parasites isolated from patients with cutaneous forms in Isfahan. The samples were obtained from the margin of suspected lesions in 298 patients. They were stained with Giemsa and cultured in NNN and RPMI 1640 media supplemented with a 10% fetal calf serum. The promastigotes were then purified, counted and used as antigens in the ELISA test. Mass production of the promastigotes was successful in 120 cases. *L. major* was identified as the causative agent in 100 cases and *L. tropica* in 8 patients. The results were inconclusive in 12 cases because the antigens reacted with either 2 or 3 specific monoclonal antibodies. *L. major* is probably the most common cause of leishmaniasis in Isfahan.

Authors: Hejazi H, Nasrifar P, Jamali S, Jahangirnejad AA, Khamesipour A.

Source: Iranian Journal of Dermatology. 2000; 4: 7-11.

ACUPUNCTURE IN THE TREATMENT OF CHRONIC URTICARIA

Urticaria is a very common symptom and most of the current treatment modalities are only partially effective. This study was performed to assess the effectiveness of acupuncture as an alternative method in the treatment of urticaria in Iran. In a randomized controlled double-blinded clinical trial, 40 patients with chronic urticaria referred to the dermatology clinics of Isfahan University of Medical Science in 1999 were studied. The patients had idiopathic urticaria, resistant to the conventional treatment and had not received any medication in the last month. They were randomly divided into two equal groups. One group was treated with acupuncture and the other with placebo for 3 weeks. Data entry and analysis was performed by Systat and student's *t-test* was used for data analysis. The mean numbers of the episodes of urticaria in 3 weeks were 4.81 in the control group and 3.62 in the acupuncture group; the mean duration of the urticarial episodes in the third week was 5.08 hr in the control group and 2.37 hr in the acupuncture group. Both the mean differences were statistically significant (p values 0.01 and 0.03 respectively). Acupuncture induced remission in the majority of the cases and it was a more effective modality than placebo therapy.

Authors: Iraji F, Saghayi M, Mokhtari H.

Source: Iranian Journal of Dermatology. 2000; 4: 31-5.

EFFECT OF GARLIC EXTRACT AND LEISHMANIA MAJOR ON NITRIC OXIDE PRODUCTION BY PERITONEAL MACROPHAGES

Previous reports have shown the antibacterial and anticancerous effects of garlic. These effects are probably

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mediated by the stimulation of macrophages in nitric oxide (NO) release. In this study, the effect of chloroformic and aqueous garlic extracts on NO production by macrophages was investigated. Peritoneal macrophages were prepared and plated out at 10^6 cells/mL in 24-well plates in 1 mL RPMI 1640. The cells were incubated for 24 hr 5% CO₂ in air at 37° C in the presence (test group) or absence (control group) of garlic extract at different concentrations (10, 20, 40, 80, 320 L). In a separate experiment, with the addition of different concentrations of garlic extract to a total of 10,000 *Leishmania major* (*L. major*) parasites, the stimulatory effect of the parasite on NO production was assessed. Nitrite concentration was considered as an indicator of NO production. Nitrite concentration was greater in the test group than the control group. The results also showed that the *in vitro* *L. major* has the ability to enhance the release of NO by the peritoneal macrophages in response to the garlic extract.

Authors: Ahmadi K, Pandouneh A, Esfahani A.

Source: *Iranian Journal of Basic Medical Sciences*. 2000; **3**: 55-60.

CAUSES OF MATERNAL MORTALITY IN YAZD, CENTRAL IRAN: A TEN-YEAR OBSERVATION

The life of pregnant women is threatened by many complications such as vaginal bleeding, postpartum infections, eclampsia, thromboembolism and amniotic fluid embolism. These fatal complications are direct causes of maternal mortality, while death resulting from complications unrelated to gestation are considered as indirect causes. In a 10-year period (from 1988 to 1998), 25 cases of maternal deaths were documented based on the patients' records. It was observed that three-fourths of deaths were due to gestational complications, while in one-fourth of cases, the cause of mortality was indirect. Hemorrhage (28%), eclampsia (20%), infection (12%) and embolism (8%) were among the most common causes of mortality. Indirect causes of mortality were hepatitis (16%) and heart disease (8%). Although the maternal mortality rate in Yazd seems to be quite low, but preventive measures could help further improvements in this index.

Authors: Karimzadeh MA, Babazadeh P.

Source: *The Iranian Journal of Obstetrics, Gynecology and Infertility*. 1999-2000; **2,3**: 61-64.

HEALING EFFECT OF FUNDERMOL OINTMENT ON SECOND DEGREE BURNS IN RATS

This study was designed to show the therapeutic effects of fundermol ointment (made in Janbazan Research Center) on healing of second degree burns in rats. About sixty male and female rats weighing between 220 and 230 g exposed to artificial burn injury according to Mason and Walker. After the induction of anesthesia by nesdonal (40 mg/kg, intraperitoneal) their back skin was shaved and then exposed to 96° C water for 6 seconds in order to make a second degree burn covering about 10% of the total body surface area. After 24 hr post-burn animals were divided into three groups: fundermol, silver sulfadiazin and the control. At the 15th and 30th days post-burn, all the wounds were evaluated histologically (measuring the densities of epithelium and the blood vessels and tensile strength of the healing tissue in the affected area). Morphometric and quantitative measurements showed that fundermol ointment is effective in the treatment of second degree burns.

Authors: Asadi M, Karimi-Pour M, Khoshbaten A, Bahadoran H, Amidi V.

Source: *Kowsar*. 2000; **4**.