



ABSTRACTS OF RECENT CHINESE PUBLICATIONS ON HELMINTHIASES<sup>1</sup> (X)

112. Zhang, B. X. Human trichinosis (with 5 biopsy reports). National Medical Journal of China, 1983, 63 (7): 453 (In Chinese)

As reported in this paper, the clinical and pathological findings made in 5 cases of trichinosis in Shiyan City, Hubei Province, presented the following common features: (1) all had a history of eating undercooked infected pork, the entire household becoming infected and presenting an identical course of illness; (2) typical manifestations included fever, general pain and tenderness of muscles, oedema of the face and limbs, eosinophilia (17-34%), and a positive indirect haemagglutination test; (3) biopsy of gastrocnemius muscle revealed 2-6 *Trichinella* cysts per low-power microscope field, inflammation, congestion and oedema around the cysts, a basophilic transformation, disappearance of cross striation of some muscle fibres, vacuolar degeneration, necrotic inflammatory changes and absence of calcified larvae; (4) no relation of the disease to age and sex was noted.

113. Sun, C. X. et al. Ectopic parasitism of female *Enterobius vermicularis* in the male urogenital tract - a case report. National Medical Journal of China, 1983, 63 (9): 578 (In Chinese)

Live female *Enterobius vermicularis* were found on two occasions in the seminal fluid of a 32-year-old male, who suffered from repeated infections of the urinary tract followed by frequent seminal emission. The worms recovered were identical in general morphology with those parasitizing the intestines except that the eggs in the uterus of the female worms were undeveloped.

114. Zhu, Q. et al. A study of 28 cases of infection with *Thelazia callipaeda*. Jiangsu Medical Journal, 1983, 9 (7): 35 (In Chinese)

In the reported study, the 28 cases of parasitologically confirmed infections with *Thelazia callipaeda* included 20 male and 8 female subjects ranging in age from 6 months to 14 years, with 11 of them being 1-2 years of age. Among these children, 1-3 worms were recovered in 21 cases, 4-7 worms in 6 cases and 11 worms in 1 case. Worms were found in the conjunctiva of 27 children and in the anterior chamber of the eye in 1 child. Of the 22 households investigated for the presence of domestic animals, i.e. pigs, cats and dogs, 5 kept all these 3 kinds. Clinical manifestations included inflamed, swollen eyelids, hyperaemia of the upper palpebral conjunctiva with paresthesia, and excessive lacrimation. Damage of the conjunctiva could be caused by incessant and vigorous rubbing of the eye which induced conjunctivitis, corneal opacity and adhesion between the palpebral and bulbar conjunctivae. One patient, with worms in the left anterior chamber, had hyperaemia, photophobia and impaired vision which recovered after removal of the worms. The conjunctival sac was sterilized with silver nitrate and flushed, and an anti-inflammatory was applied. In severe cases, 0.1 ml of 5% sulfadiazine and 0.1-0.2 ml of prednisone were injected subconjunctivally.

<sup>1</sup> The WHO/HELM series has been chosen as a vehicle for issuing abstracts or translations in English of papers on helminthiases published in the Chinese medical and scientific press as most of this material is not readily available to interested readers outside China. The numbering of the abstracts in this document is consecutive to that of the abstracts given in the previous WHO/HELM/84.15.

115. Zhong, H. L. et al. Human infection with Macracanthorhynchus hirudinaceus causing serious complications in China. Chinese Medical Journal, 1983, 96 (9): 661 (In English)

This paper deals with the parasitology, epidemiology, clinical manifestations, laboratory diagnosis, treatment, prevention and control of human infection with Macracanthorhynchus hirudinaceus in China. The disease involves many provinces, at times assuming epidemic proportions in certain areas. It was found to be far more prevalent than was previously known, especially in pigs.

116. Xiao, Z. X. et al. 8 cases of muscular pseudohypertrophy among 2525 patients with cysticercosis. Beijing Medical Journal, 1983, 5 (5): 270 (In Chinese)

Although cysticercosis is a common disease in North China, cases of muscular pseudohypertrophy are rare. Of the 2525 cysticercosis patients treated during 1958-1981, 6 males and 2 females of 22 to 38 years of age with muscular pseudohypertrophy were encountered. All the patients had subcutaneous nodules; 6 were diagnosed as cerebral cysticercosis, and one had involvement of the left ophthalmus. The interval between the appearance of subcutaneous nodules and the onset of muscular symptoms varied from 1 to 6 years. The major manifestations were hypertrophy and induration of muscles of the limbs, especially gastrocnemius, muscle weakness and depressed tendon reflexes. Oedema of optic papillae was seen in 3 patients. 2 cases showed myogenic lesions in electromyograms. Muscle biopsies from 3 patients revealed splitting and degeneration of muscle fibres in 2 of the patients and subacute myositis in 1. Serological tests such as complement fixation, latex agglutination and indirect haemagglutination were all positive; eosinophilia counts ranged from 1936 to 17 624. Of the 2 patients given a lumbar puncture, the cerebrospinal fluid in one of them showed a white blood cell count of 340 (neutrophils 84%), protein 104 mg% and glucose 40 mg%, and a colloidal gold curve of 5544321000.

The pathogenesis of muscular pseudohypertrophy was discussed: (1) mechanical and chemical stimulation due to cysticerci; (2) inflammatory or toxic effects; (3) allergic reaction; (4) muscle degeneration due to circulatory stasis caused by numerous enlarged cysticerci.

117. Jiang, C. P. Prevalence of human echinococcosis in China. Chinese Journal of Epidemiology, 1983, 4 (4): 251 (In Chinese)

Two types of human echinococcosis are found in China: unilocular echinococcosis (UE) due to larvae of Echinococcus granulosus Batsch, 1786 and alveolar echinococcosis (AE) due to larvae of E. multilocularis Leukart, 1863. UE prevails mainly in the Provinces (or Autonomous Regions) of Xinjiang, Qinghai, Ningxia, Gansu, Neimongul, Tibet, Sichuan and Yunnan with cases also reported in Shanxi, Hebei, Shandong, and Liaoning Provinces, and sporadic cases in some non-endemic areas due to population movement. AE prevails mainly in the Provinces (or Autonomous Regions) of Xinjiang, Qinghai, Ningxia, Gansu and Sichuan. Most of the UE and AE cases were found in Xinjiang where over 3000 cases of UE and AE were hospitalized from 1953 to 1979 according to incomplete statistical data from 6 local hospitals. Most UE cases were found in herdsmen and most AE in peasants; a majority of these patients were young or middle-aged. Prevalence of E. granulosus infection in domestic animals is quite high, being found in descending order of frequency in sheep, cattle, goats and pigs. The prevalence of echinococcosis in the whole of China cannot yet be estimated, as surveys have been carried out in only a few limited places.

118. Xu, M. Q. Diagnosis and treatment of echinococcosis of the liver. Chinese Journal of Infectious Diseases, 1983, 1 (2): 83 (In Chinese, with English abstract)

Of 900 patients with Echinococcus granulosus echinococcosis who were treated by surgical operation, 650 had cysts in the liver. The characteristics of the disease were: a history of contact with dogs or contaminated environment; a sense of bearing down with bursting and occult pain in the liver region; inappetence, wasting and anaemia; enlargement of liver with palpable

large cysts; detectable hydatid thrill; and a positive Casoni intradermal test (92.7%). Laboratory findings, ultrasound examination, radioisotope scanning and roentgenography were helpful in the diagnosis. Complications suffered by the patients included secondary bacterial infection of the cysts in 17.3% of the cases, ruptured cyst in 8.1%, disseminated echinococcosis in 2.6% and anaphylactic shock in 1.5%. Treatment comprised removal of endocysts and management of residual loculi of ectocysts. In our series of 650 cases, operations were performed with a mortality rate of 0.92% (6 cases).

119. Zhang, S. Q. et al. Speciation of the lung fluke of paragonimiasis in Daye County, Hubei Province. Chinese Journal of Zoology, 1983, (2): 20 (In Chinese)

Areas endemic for paragonimiasis patients as well as patients with this disease have been found in more than 20 counties in the western and mountainous regions of northwestern parts of Hubei Province in recent years. In previous studies Paragonimus skrjabini was identified as the pathogenic species. In the present study, a field survey was carried out in Fujiashan Brigade, situated 200 m above sea level in Xiaoqipu Commune, Daye County, southeast Hubei Province. No cercariae were recovered from 135 Semisulcospira libertina snails found in the local creeks. Paragonimus metacercariae were recovered from 10 Sinopotamon depressum crabs with an infestation of 6 to 2653 metacercariae per crab. Dogs were infected experimentally with the metacercariae and autopsied 120 and 122 days later. Eggs, metacercariae, excysted metacercariae and adult worms were identified as belonging to the species Paragonimus westermani, thereby demonstrating the presence of paragonimiasis westermani in Hubei Province.

120. Xiang, X. S. et al. A preliminary survey of reservoir hosts of Paragonimus in Wufeng County, Hubei Province. Chinese Journal of Preventive Medicine, 1983, 17 (2): 128 (In Chinese)

A survey of reservoir hosts of Paragonimus was made in Wufeng County, Hubei Province, from October 1977 to December 1981. Among the 10 animal species examined, no Paragonimus were found in Mesocricetus auratus, Canis familiaris, Meles meles, and Lepus europaeus. Adult Paragonimus were recovered in 6 out of 11 Felis domestica, 1 out of 3 Felis bengalensis, 2 out of 5 Paguma larvata, 3 out of 5 Vulpes vulpes, 4 out of 9 Nyctercutes procynoides and 2 out of 5 Mustela sibirica. The mean worm burden per animal was 6.6, 27.0, 13.5, 4.5, 4.0 and 1.5 respectively. The parasites were identified as Paragonimus skrjabini.

121. Chen, R. X. et al. Effect of qinghaosu and derivatives on Clonorchis sinensis in rats. Chinese Pharmaceutical Bulletin, 1983, 18 (7): 26 (In Chinese)

The effect of qinghaosu and its derivatives (i.e. Sm223, Sm224, Sm242, Sm308, Sm320 and Sm332) on Clonorchis sinensis was studied in rats. Healthy adult rats were inoculated with 25 or 30 metacercariae of C. sinensis. One month later the rats with a positive stool examination were randomly divided into groups and administered intragastrically with different drugs at various dose-regimes. A worm-reduction rate of 100% was obtained in rats treated with qinghaosu at 200 mg/kg/day x 7 or with Sm308 at 30 mg/kg/day x 5 or other derivatives while a 99% reduction rate was obtained in rats treated with Sm332 at 60 mg/kg/day x 5. The size of the worms recovered from treated rats was significantly smaller than those of the control groups. No marked difference was noted in behaviour and food intake between the treated rats and the controls.