



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

22. Li, B. Z. et al. A survey on clonorchiasis in pigs in Tie-lin County, Liaoning Province. Chinese Journal of Zoology, 1981, No. 4 : 1 (In Chinese)

In 1979 a survey was made of clonorchiasis among pigs in 11 communes of Tie-lin County, Liaoning Province. Infected pigs were found in the communes located in plain regions with networks of waterways, while none was found in communes located in hilly regions. In the country as a whole the average infection rate of pigs was about 11%. In the plain regions with networks of waterways, the infection rate was 14.4% (37/257), with rates as high as 25 to 33.3% in some localities. The survey results showed that pigs as reservoir hosts of Clonorchis sinensis were of epidemiological significance.

23. Lü, B. J. Preliminary report on diagnosis of clonorchiasis sinensis using the indirect ELISA method. Chinese Journal of Epidemiology, 1981, 2 (4): 272 (In Chinese)

Serum antibody of 155 children from endemic areas and 50 healthy persons was determined by the enzyme-linked immunosorbent assay (ELISA). The sera were diluted to 1:100 up to 1:1600. The substrate used was ortho-phenylene diamine.

Only two false positives were obtained from the sera of healthy persons at 1:50 dilution. Of the 155 children tested, 60 were seropositive (19 at 1:100 dilution, 16 at 1:200, 12 at 1:400, 10 at 1:800, and 3 at 1:1600), and 34 were positive for Clonorchis sinensis eggs upon stool examination. All of the 34 fecal-egg positives were also ELISA positive. Of the 35 cases (35/60) ELISA positive at 1:100 and 1:200 dilutions, only 11 were positive upon stool examination. Among 25 cases (25/60) positive for ELISA at dilutions of 1:400 or more, 23 were positive upon stool examination.

A linear correlation between the positive findings of ELISA and of the stool examination was suggested by the results of this study. ELISA might prove to be a sensitive method for the detection of infection with Clonorchis sinensis and a useful tool for epidemiological survey of the disease.

24. Qu, J. Q. et al. Comparison of the micro-enzyme-linked immunosorbent assay (ELISA) and the indirect haemagglutination (IHA) test in the diagnosis of paragonimiasis. Chinese Journal of Medical Laboratory Technology, 1981, 4 (4): 216 (In Chinese)

Micro-ELISA and IHA for the serodiagnosis of paragonimiasis and the detection of antibody levels against Paragonimus westermani antigens were compared. IHA was as effective as ELISA in patients with lung fluke eggs in their sputum, but ELISA was slightly more sensitive in some symptomatic patients with negative sputum.

The antigen of P. westermani showed no cross-reaction with sera from patients with tuberculosis or echinococcosis except in two cases of schistosomiasis tested with IHA.

In general, both ELISA and IHA are efficient and practical in the serodiagnosis and mass survey of paragonimiasis.

<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/82.6.

25. Wang, Y. L. et al. Paragonimiasis of children in Guizhou Province: a report of 73 cases. Chinese Journal of Pediatrics, 1981, 19 (4): 220 (In Chinese)

During 1971-1979, 73 cases of children hospitalized with paragonimiasis were reported. All the patients were born in Guizhou Province and had never been out of the Province. Of these 73 patients, 69 had a history of eating raw crab and were either positive for the intradermal test (with Paragonimus antigen) or confirmed upon biopsy of subcutaneous nodules. Very mild systemic symptoms were observed in all except 9 who were asymptomatic. Infection of the cerebral type affected 8 patients who complained of attacks of headache with repeated vomiting. In 45 patients (61.6%), fugitive subdermal nodules which varied in number (1-10 or more) and size (0.2-7 cm in diameter) were noted. Effusion of serous cavities was common. Leukocytosis (max. 42 500) and marked eosinophilia (max. 67%) were seen. The fact that no eggs were detected in biopsies of subdermal nodules suggested that humans are not the normal host of the Paragonimus sp. involved. Before their hospitalization 44 cases were misdiagnosed either as pulmonary tuberculosis, tuberculous pleurisy, peritonitis, meningitis, brain tumour, or tumour of the chest wall. The authors suggest that residence in endemic areas, eosinophilia, fugitive subdermal nodules, or effusion of serous cavities, or patchy mottled pulmonary lesions, or elusive symptoms of the central nervous system and a quick response to bithionol treatment, should lead to a presumptive diagnosis of paragonimiasis.

26. The Cooperative Group of Treatment of Fasciolopsiasis with Praziquantel, Jiangsu. A comparison of the curative effect of praziquantel, bithionol and areca pill in the treatment of fasciolopsiasis. Jiangsu Medical Journal, 1981, 7 (6): 5 (In Chinese)

In an attempt to assess the comparative value of the various anthelmintics available, 44 cases of fasciolopsiasis were treated with praziquantel (i.e. 24 at a dosage of 10 mg/kg body weight and 20 at a dosage of 5 mg/kg body weight), 24 with bithionol and 21 with the areca pill. In stool examinations, the egg-negative conversion rates one month after treatment were 100% and 80% for the 10 mg and 5 mg praziquantel groups respectively, whereas for the bithionol and areca pill groups they were 66.7% and 61.9% respectively. Judging from the number of worms expelled and the rate of worm elimination, the therapeutic effect of praziquantel would appear to be far superior to that of bithionol and the areca pill. The difference between the three drugs was statistically significant ( $P < 0.05$ ). The side effects were milder with praziquantel than with the two other drugs. The main side effects were disturbances in the digestive system, others being headache and dizziness. No significant untoward effects on heart and liver functions were noted with any of the drugs used. In conclusion, the application of praziquantel appeared ideal in the treatment of fasciolopsiasis and may thus be the drug of choice for mass treatment.

27. Jiang, C. P. Liver alveolar echinococcosis in the northwest: report of 15 patients and a collective analysis of 90 cases. Chinese Medical Journal, 1981, 94 (11): 771 (In English)

This paper presents reports of 15 patients with alveolar echinococcosis of the liver in Gansu Province and reviews 90 pathologically proven cases seen mostly in northwest China (Qinghai, Sichuan, Xinjiang and Ningxia) from 1960 to 1980.

The 15 cases from Gansu had histories of being in contact with fox or fox furs. The chief symptoms were right upper quadrant abdominal mass (91.1%) and abdominal pain (71.1%). Jaundice (26.6%) was almost always accompanied by abnormal liver functions. Liver enlargement was the cardinal sign (58.8%), while splenomegaly and ascites (6.6%) were rare. Casoni's test was positive in 59 out of 69 cases (85.5%). Observations made with the ultrasonic echogram and the radioisotope liver scan are reported; in particular the radioisotope scan showed that the right lobe of the liver was comparatively more frequently affected. Upon physical examination, pathological lesions of the liver were of three types, i.e. large circumscribed mass (67.8%), nodular (16.7%) and mixed (15.5%). Microscopically, the sections from the 15 cases from Gansu showed lesions characterized by numerous alveoli of different sizes and shapes. No scolices, hooklets or brood capsules were noted. The lesion might be complicated by central necrosis and liquidization, and granulomatous reaction

of host tissue could usually be seen. The adjacent hepatic tissue showed congestion, atrophy, degeneration or necrosis leading to liver cirrhosis. Lymph and blood metastases were reported. The present paper also gives the diagnosis and differential diagnosis, indicates that surgical treatment is usually unsatisfactory, and discusses chemotherapy with mebendazole and immunotherapy.

28. Wen, J. Z. Laboratory examination of Strongyloides in stool. Chinese Journal of Medical Laboratory Technology, 1981, 4 (3): 175 (In Chinese)

The 150 stool specimens collected from patients suspected of having strongyloidiasis were examined by three different methods: Baermann's method for recovery of helminth larvae, activated charcoal-culture and direct smear-culture.

Rhabditiform larvae were found only in 3 of the 150 specimens (2%) with the direct smear-culture method, while 6 (4%) of the remaining 147 cases were found positive with Baermann's method and another 4 cases (2.7%) were found positive with the method of activated charcoal-culture, thus yielding a total positive rate of 8.7%.

Baermann's method was found to be simpler than charcoal-culture and gave a result within 1 to 2 hours, but its positive detection rate was lower than that of the charcoal-culture method. Of the three methods, the direct smear-culture gave the lowest positive detection rate and was therefore unreliable in patients with light infections where the activated charcoal-culture and Baermann's methods are to be recommended.

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