



ABSTRACTS OF RECENT CHINESE PUBLICATIONS ON HELMINTHIASES¹ (II)

INDEXED

13. Chen, Z. Z. et al. Distribution of hookworm infection in some districts of Guangdong Province. Chinese Journal of Preventive Medicine, 1981, 15 (3): 193 (In Chinese)

The incidence of hookworm infection was investigated in some production workers in Guangdong Province, where mass treatment had not previously been carried out. The saturated saline floatation method was used to detect hookworm eggs, and egg counts were made for all positive cases. The morphology of the third-stage larvae was studied for species identification and the number of adult worms was estimated on the basis of the egg count. Necator americanus was the predominant species.

14. Huang, X. X. et al. Experimental studies on the infection of puppy dogs with the human hookworm Necator americanus. National Medical Journal of China, 1981, 61 (6): 361 (In Chinese)

In these experiments 32 puppy dogs were divided into four groups. In group 1, each dog received intramuscularly or intravenously at least one of the four immunosuppressants of the non-hormone type, i.e. cyclohexan, vincristine, methotrexate and cyclic cytidine in combination with cortisone acetate. The drugs were administered daily for three days before infection and once every three days after infection. In group 2, the dogs were only injected intramuscularly with cortisone acetate. In group 3, the dogs were irradiated with cobalt 60 in combination with immunosuppressants. In group 4, the dogs were put on a poor diet and became malnourished. Each animal was exposed to approximately 8000 larvae of Necator americanus. The faeces were examined weekly 30 days after infection. Of the 32 pups, 22 were dissected 40 to 60 days after infection and 1918 adult worms were recovered from the small intestines. It seems that all the treatments, except that used in group 3, can inhibit immunity and increase susceptibility.

15. Gui, R. et al. A report on 40 cases of asthma with eosinophilia caused by Ascaris allergy. Chinese Journal of Pediatrics, 1981, 19 (3): 171 (In Chinese)

An etiological survey of 40 cases of asthma with eosinophilia was carried out in a suburb of Dalian City. The children examined were aged two to 12 years and had suffered from the disease from one to nine years. The incidence of more than two patients found in the same household accounted for 85% of the cases of asthma. The temperature of all the cases was normal, except for two with a subfebrile state. Urticaria appeared in 30% of the cases. Chest X-ray revealed shadows on the lungs in 10 cases. Eosinophil counts as high as 11-61% were observed and a large number of eosinophils were found in nasopharyngeal secretion in 30 cases. Ascaris eggs were found in the faeces of 97.5% of the patients. Using the body fluid of Ascaris as antigen a positive skin reaction was observed in 20 cases. It was presumed that the disease was of an allergic nature due to ascariasis. At six months after treatment with ascaricidal and antianaphylactic drugs, the clinical response was satisfactory.

¹ 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/82.5.

16. Zhong, H. L. et al. Recent progress in studies on Paragonimus and paragonimiasis control in China. Chinese Medical Journal, 1981, 94 (8): 483 (In English)

Before 1949, only three species of Paragonimus were known in China: Paragonimus westermani, P. ohirai and P. iloktsuensis. The two latter species are not parasites of man. Since 1957, 15 new species and subspecies have been reported.

The first intermediate hosts are 21 species of freshwater snails of which 12 species belonging to two families were identified as first intermediate hosts of Paragonimus for the first time in China. The second intermediate hosts are 21 species of freshwater crabs, crayfish and shrimps.

The reservoir hosts of Paragonimus pathogenic to man in China are cats, dogs, tigers, leopards, wolves and other carnivorous Felidae and Canidae. Pigs in Liaoning may also act as reservoir hosts.

Detailed descriptions of the pathology of paragonimiasis caused by P. szechuanensis are presented. This parasite invades the liver more frequently than P. westermani, and migrates to the subcutaneous tissue of the human host (mostly on the chest, abdominal wall and arms and legs) to form subcutaneous nodules.

Diagnosis can be made by history taking, X-ray and physical examinations, and the application of some immunological methods including the skin test, complement fixation test, double diffusion test, counter electrophoresis, indirect fluorescent antibody test, enzyme-linked immunosorbent assay and radioimmunoassay.

Among the drugs administered, bithionol is the most effective.

17. Shen, Y. Q. et al. A preliminary survey on Clonorchis sinensis in the suburb of Jilin. Chinese Journal of Epidemiology, 1981, 2 (3): 194 (In Chinese)

This is a short report on the epidemiology of Clonorchis sinensis in the suburb of Jilin, which is located on the lower reaches of the Mangniu River. The farmers there grow vegetables and rice, with fishing from the four fishponds as their auxiliary production.

Of 1389 inhabitants, 31 were found to be positive for C. sinensis eggs by direct examination of faecal smears. These 31 patients included five (0.4%) of the Han nationality and 26 (16.9%) of the Korean nationality, these last being used to eating raw fish. The difference in prevalence was statistically significant. Clinical observations were carried out on all 31 patients and liver function tests on 24.

The fish intermediate hosts were Pseudorasbora parva, Abbottina rivularis and Hemiculter leucisculus, and nine species of snails were found to serve as the first intermediate hosts.

Investigation of reservoir hosts showed that the bile ducts of two cats were full of adult C. sinensis, while no flukes were found in two dogs upon biopsy although experimental infection of the dogs had been successful.

18. Cong, Y. I. et al. Intestinal perforation and peritonitis due to Macracanthorhynchus hirudinaceus: a report of two cases. Beijing Medicine, 1981, 3 (4): 215 (In Chinese, with English abstract)

Two cases of infection with Macracanthorhynchus hirudinaceus were reported. Both cases were boys who were 10 and six years old respectively and who were natives of north China. In the intestine of the first boy, two adult worms were found and five to six in the other boy. The first boy had a history of eating long-horned beetles (the intermediate host of the worm). The main clinical symptom was severe abdominal pain and signs of peritoneal irritation. There are five or six rows of recurved spines on the proboscis which is embedded in the intestinal wall and forms a canal in it, sometimes causing intestinal perforation. The two cases were operated on for intestinal perforation with good results.

19. Wang, J. et al. Effect of mebendazole in experimental treatment of cysticercosis. Acta Academiae Medicinae Sinicae, 1981, 3 (Suppl. 1): 63 (In Chinese, with English abstract)

Two animal models were used for the study: rats experimentally infected with eggs of Hydatigera taeniaeformis (cat tape worm), and pigs experimentally infected with eggs of Taenia solium. When these infected animals were treated orally with fine particles of mebendazole 1-3 μ m in diameter at a dosage of 50-100 mg/kg body weight per day for 60 days, a certain cysticercocidal effect in both animal models was obtained. The therapeutic effect of mebendazole was shown to be closely related to the size of its particles and the cysticercocidal effect was negligible with particles over 5 μ m in diameter.

20. Zhu, M. F. et al. Preliminary clinical observations on cysticercosis treated with praziquantel (pyquiton). National Medical Journal of China, 1981, 61 (9): 545 (In Chinese)

Observations were made on 47 cases of cysticercosis (29 of the cerebral type and 18 of the subcutaneous and muscular type) treated with praziquantel. The regimens of praziquantel used were: 60 mg/kg body weight given in two days to 16 patients; 90 mg/kg body weight given in three days to 31 patients. The side effects consisted mainly of dizziness (57.4%), headache (51.1%) and fever (31.9%) and were more severe in patients with the cerebral type of the disease. Routine blood examination, liver function tests, serum potassium and calcium test, and electrocardiogram showed no significant changes after treatment. Of the 47 patients treated, six (12.7%) had light proteinuria and haematuria, which disappeared quickly.

An examination was made of cysticerci from superficial cysts biopsied from 11 patients before and after the three-day course. Before treatment, four showed dead cysticerci, and four to five weeks after treatment, seven out of nine cysticerci were dead. Of 11 patients receiving the two-day course, two showed dead larvae before treatment and six out of eight patients after treatment.

21. Fu, S. et al. Treatment of hydatid disease with praziquantel (pyquiton) - a case report. Chinese Journal of Internal Medicine, 1981, 20 (8): 493 (In Chinese)

A case with hydatid cysts in the liver and spleen was treated with praziquantel at a dosage of 30 mg/kg body weight for five days, and the treatment was repeated one month later. The patient tolerated the drug well. Before treatment, five filling defects in the liver and one in the spleen were traced by radioactive isotope electronic computer scanning with colloidal ¹¹³indium, and the patient showed a positive reaction to the intradermal test with hydatid antigen. Two months after treatment, not only had the general condition of the patient improved, but the patient also showed only one filling defect much reduced in size, in the liver, and none was found in the spleen, upon ¹¹³indium scanning. It seems that praziquantel might be a promising drug for the treatment of hydatid disease.