



ABSTRACTS OF RECENT CHINESE PUBLICATIONS ON PROTOZOA INFECTIONS¹ (V)

Protezoan infekcije

33. Sha, R.J. et al. Observation on the release of cysts from patients with intestinal protozoan infections. Chinese Journal of Parasitology and Parasitic Diseases², 1987, 5 (2): 157 (In Chinese)

Faecal examinations were made on 10 successive days for 24 patients with intestinal protozoan infections. The number of protozoan cysts per gram of faeces was determined by the sedimentation method. Results showed that the positive rate was related to intensity of infection and number of examinations. The cumulative detection rate calculated from repeated examination of 15 cases of giardiasis and 9 cases of amoebic infection showed that definite diagnosis could be made by examining the patients every other day for 3-4 consecutive times.

34. Lian, W.N. & Deng, B.J. Observations on cell electrophoresis of Toxoplasma gondii. Chinese Journal of Zoonoses, 1987, 3 (1): 20-22 (In Chinese, with English abstract)

The electrophoretic mobility (EPM) and the surface charge density (SCD) of the 2S strain of Toxoplasma gondii were measured using the cellular electrophoretic technique. The results indicated an EPM of -1.03 to -0.85 $\mu/s/v/cm$ and a SCD of -3615.96 to -4315.38 esu/cm in pH conditions of 6.0-8.0. The EMP of T. gondii treated with trypsin was compared with that of the control T. gondii under the same pH condition of 7.0 and a significant difference was found between the two. T. gondii with a surface negative charge was considered to be sensitive to trypsin.

35. Wang, D.M., Gu, X.H., Song, X.F. & Duan, S.C. Hepatitis due to toxoplasmosis in infants and children. Shanghai Medical Journal, 1987, 10 (5): 274-276 (In Chinese, with English abstract)

Toxoplasmosis specific IgM antibody in the serum was determined by the indirect haemagglutination test in 117 infants under 6 months of age, suffering from jaundice and

¹ The WHO/PROTOZOA series has been chosen as a vehicle for issuing abstracts or translations in English of papers on protozoan infections (other than malaria and leishmaniasis which are dealt with separately in the WHO/MAL and WHO/LEISH document series) 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/PROTOZOA/87.4.

² The attention of readers is drawn to the fact that in 1987 the English title of the Journal of Parasitology and Parasitic Diseases was changed to the Chinese Journal of Parasitology and Parasitic Diseases.

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hepatomegaly and with an abnormal liver function test. The antigen used came from RH strains imported from Denmark. A titre of >32 was considered positive. On this basis, 2 infants showed a positive titre of 1:64 for toxoplasmosis IgM antibody. One of these infants had jaundice at birth, the other 45 days after birth. A 4-year-old girl, who was admitted to hospital as a case of acute viral hepatitis, was also found positive for toxoplasmosis IgM antibody with a titre of 1:128. The clinical symptoms in these three patients were not severe, and all three patients recovered two to four months after the onset of the disease. The families of two of the patients lived in rural areas.

36. Liu, W.B., Feng, K., Ma, Y.W. & Lu, S. A case of acquired acute toxoplasmic peritonitis. Chinese Journal of Zoonoses, 1987, 3 (4): 30-31 (In Chinese, with English abstract)

A case of acquired acute toxoplasmic peritonitis is reported. Antibody to Toxoplasma gondii was found in the patient's serum by radioimmunoprecipitation-poly-acrylamide gel, indirect haemagglutination, and indirect fluorescent antibody techniques. T. gondii antigen was detected in the patient's ascitic fluid by radio-autography counter-immunoelectrophoresis and co-agglutination. Trophozoites and pseudocysts of T. gondii were seen in smears of the ascitic fluid.

Toxoplasmic peritonitis is easy to confuse with tuberculosis peritonitis, and therefore differential diagnosis is needed. Treatment with sulfadiazine and pyrimethamine for four courses was effective against toxoplasmic peritonitis.

37. Lu, S.Q., Wang, C.G., Zhang, Y.Q. & Wen, Y. Diagnosing giardiasis by detecting Giardia lamblia antigen in faecal matter with counterimmunoelectrophoresis. Chinese Journal of Parasitology and Parasitic Diseases, 1987, 5 (1): 22-24 (In Chinese, with English abstract)

Counterimmunoelectrophoresis (CIE) was used to test faecal specimens from 35 patients with parasitologically confirmed giardiasis, 41 patients with acute gastroenteritis, 23 patients with acute bacillary dysentery, 40 healthy persons, and 15 jirds experimentally infected with Giardia lamblia. Positive reactions were found in 33 (94%) of the 35 giardiasis patients and in 14 (93%) of the 15 infected jirds, while the faecal specimens from the other groups of patients, the healthy persons and uninfected jirds all showed negative reactions.

CIE was also performed in 4 patients with giardiasis before and after treatment with metronidazole. Before treatment they were all CIE positive. At one day after treatment, 3 were still CIE positive and continued to pass G. lamblia cysts or trophozoites in their stools. From the second day onwards, however, all became CIE negative and both cysts and trophozoites disappeared from their stools. The CIE technique for detecting G. lamblia antigen in faecal specimens is apparently not only a sensitive tool for detecting current infection but also a useful one for evaluating the effects of therapy against giardiasis.

38. Huang, M.Y. & Lian, W.N. In vitro effect of tinidazole on Trichomonas vaginalis and Trichomonas hominis. Chinese Journal of Parasitology and Parasitic Diseases, 1987, 5 (1): 29-31 (In Chinese, with English abstract)

The trichomonocidal activity of tinidazole (Fasigyn) was evaluated in in vitro cultivations of Trichomonas vaginalis and T. hominis submitted to different drug concentrations. The results showed that, after a 48-hour incubation period with tinidazole, the 100% lethal concentration was 20 µ/ml for both T. vaginalis and T. hominis. When compared with the trichomonocidal effect of metronidazole, that of tinidazole was one titre lower for T. vaginalis and of the same order for T. hominis.

39. Lian, Z.Q., Xu, C.G., Dai, L.H., Jin, C.X., Zhou, Z.B., Li, W.T., Zuo, Y.X. & Chen F.Q. Experimental infection of Sarcocystis sui hominis in pigs. Chinese Journal of Parasitology and Parasitic Diseases, 1987, 5 (1): 51-52 (In Chinese, with English abstract)

Sporocysts of Sarcocystis sui hominis, collected from the faeces of infected persons who had ingested raw pork, were used to infect swine. On day 56 after inoculation, cysts were found in the cardiac and skeletal muscles of the animals. The cysts were spindle-like, elongated or elliptic in shape. The cyst wall had numerous thick, villi-like projections. The cysts were divided into many compartments by septa formed from the cyst wall and each compartment was filled with banana-like bradyzoites measuring $10.46 \times 4.61 \mu\text{m}$.

Five rhesus monkeys which had been fed raw pork containing S. sui hominis cysts did not develop an infection, while another monkey which had received a hydrocortisone injection two days before S. sui hominis incubation for 5 days, voided sporocysts in the faeces on day 11 after intubation for a period of 9 days. The sporocysts measured $12.72 \times 10.24 \mu\text{m}$.