

ABSTRACTS

“Antifilarial activity of levamisole hydrochloride against subperiodic *Brugia malayi* infection of domestic cats.”

MAK, J.W., ZAMAN, V. and SIVANANDAM, S. (1974). *Amer. J. Trop. Med. Hyg.*, 23 (3) : 369.

Levamisole was given subcutaneously in total doses of 30-150 mg/kg body weight to 7 cats with subperiodic *Brugia malayi* infection. While the drug reduced the microfilarial levels considerably, only 2 cats showed complete disappearance of microfilariae from the peripheral blood. From histological study, the authors show that the drug is also effective against the adult worms in the lymph nodes. Side reactions occurred in all 7 cats. These included salivation, anorexia, involuntary muscular twitching and erection of hair on the back. The severity of the reactions was dose-dependent. The authors feel the drug may be of use in treating human filaria if an optimal dose could be worked out.

MULKIT SINGH.

“Treatment of *Brugia malayi* infection with levamisole.”

O'HOLOHAN, D.R. and ZAMAN, V. (1974). *J. Trop. Med. Hyg.*, 77 : 113.

This trial was done on a group of estate labourers in West Malaysia having asymptomatic microfilaremia. The drug was administered as a single dose only to 10 patients or as a dose for 3 consecutive days to 17 patients. The dosage employed was that recommended by the manufacturers for treatment of Ascariasis. Of the 27 patients treated, only 11 showed clearance of microfilariae from the blood in the 8 days' observation of the treatment. Almost all the patients showed fever after drug treatment.

MULKIT SINGH.

“Antimalarial, antimoebic and toxicity tests on gentianine.”

NATARAJAN, P.N., WAN, A.S.C. and ZAMAN, V. (1974). *Planta Med.*, 25 (3) : 258.

Gentianine and its reduction product had no activity against *Plasmodium berghei* in mice and *Entamoeba invadens* in culture media. The minimum lethal dose of gentianine given intraperitoneally to mice was found to be 400 mg/kg. The authors suspect that although gentianine is inactive as an antimalarial and antimoebic, its precursor, possibly the glycoside gentiopicrin, in the plant, may be active.

MULKIT SINGH.

“Clinical trial of Pyrantel embonate, Levotetramisole and Bephenium hydroxynaphthoate against *Necator americanus*.”

ZAMAN, V. and LOH, Y.P. (1974). *Singapore Med. J.*, 15 (2) : 147.

A clinical trial was conducted to compare the efficacy of the above 3 drugs in treating patients in Singapore with *Necator* infection. A single dose treatment gave a cure rate of 80% for Pyrantel embonate, 68.4% for Levotetramisole and 43.7% only for Bephenium. It is also stated in this paper that Bephenium was not well-tolerated and gave greater side effects than Levotetramisole and Pyrantel embonate. It must be noted though that the trial was done on a total of 83 patients only.

MULKIT SINGH.

“An acute attack of quartan malaria in a leprosy patient being treated with diaminodiphenylsulphone.”

LIANG, A.B.G., GOOL, H.C. and GELBFR, R.H. (1974). *Trans. Roy. Soc. Trop. Med. Hyg.*, 68 (2) : 165.

The authors report an acute attack of *Plasmodium malariae* in a 29 year old Malaysian aborigine suffering from lepromatous leprosy and on a weekly dose of 600 mg of DDS (dapson) for a prolonged period. It is suggested that DDS-resistant strains of malaria parasites can occur in endemic areas where large quantities of DDS have been used in control of leprosy.

MULKIT SINGH.

“Some ultrastructural observations on the microfilaria of *Breinlia sergenti* - the pharyngeal thread and Innenkorper.”

SINGH, M., KANAGASUNTERAM, R., HO, B.C., YAP, E.H. and CHAN, H.L. (1974). *Int. J. Parasit.*, 4:375.

This paper describes the fine structure of the pharyngeal thread and the Innenkorper of the microfilaria of *Breinlia sergenti*. The pharyngeal thread appears as a rigid, elongated cuticular structure with associated nervous elements while the Innenkorper is a sac-like structure with dense granular material. A possible function related to the transfer and storage of nutrient material is assigned to these structures.

MULKIT SINGH.

“Population dynamics of microfilarial production and eosinophilic levels in slow lorises infected with *Breinlia sergenti*, Petter (Filarioidea : Dipetalonematidae).”

HO, B.C., SINGH, M. and YAP, E.H. (1974). *Int. J. Parasit.*, 4 : 383.

This paper describes the population dynamics of microfilariae throughout the course of infection with *Breinlia sergenti* in slow lorises given either single or multiple successive inoculations of 100-150 infective larvae. Three different patterns of microfilaremia were seen in animals given a single inoculation whereas superinfected animals showed enhanced microfilarial levels. Both the number of inoculations as well as the interval between inoculations were important factors in enhancing microfilarial levels. The authors have also attempted to correlate microfilarial densities with

eosinophilic levels in the infected animals. Eosinophil levels were seen to rise sharply at 3-4 weeks after infection and reached a maximal level around 7-9th week.

MULKIT SINGH.

"Preservation of *Plasmodium falciparum*-infected erythrocytes for *in vitro* cultures."

PAVANAND, K., PERMPANICH, B., CHUANAK, N. and SOOKTO, P., (1974). *J. Parasit.*, 60 (3) : 539.

P. falciparum in naturally-infected human RBC, which were frozen in liquid nitrogen in the presence of 12% dimethylsulfoxide, stored in 0.5 to 1.0 ml quantities, and thawed immediately, were thus preserved intact for as long as 24 months, as tested by subsequent *in vitro* cultivation.

CURT R. SCHNEIDER.

"Acute pulmonary insufficiency in falciparum malaria: Summary of 12 cases with evidence of disseminated intravascular coagulation."

PUNYAGUPTA, S., SRICHAIKUL, T., NITIYANANT, P. and FETCHCLAI, B. (1974). *Amer. J. Trop. Med. Hyg.*, 23 : 551.

Five of 12 falciparum malaria patients died in hospital in Bangkok, Thailand, within 24 hours of the onset of pulmonary complications and 4 others died within an average 33.4 hours: death was directly due

to progressive respiratory failure with cerebral and renal complications.

Three other patients survived, with improvement commencing 3-4 days after onset of pulmonary complications.

A striking difference between the non-fatal and fatal cases of complicated malaria was that in the former 3% or less of RBC were parasitized as against 30% or more in the latter (unusually high parasitaemias in the authors' experience). Moreover, treatment by intravenous quinine had been started in the 3 survivors (and in 2 of the fatal cases) before the onset of pulmonary edema.

Disseminated intravascular fibrin deposits probably played an important role in producing the pulmonary insufficiency.

CURT R. SCHNEIDER.

"Dengue Haemorrhagic Fever in Rangoon."

CENTRAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH (1974). *Rept. Commun. Dis.*, No. 6-8.

During the three - month period June - August 1974, 1 302 cases of dengue haemorrhagic fever were treated at the Children's Hospital, Rangoon. In June, there were 206 cases with 22 deaths, in July, 400 cases and 40 deaths and in August, 696 cases with 34 deaths. The cumulative total since the beginning of the year was 1343 cases and 109 deaths.

D.C. REYNOLDS.