STUDY OF THE IN VITRO CELL PROLIFERATION OF LYMPHOCYTES FROM MANSON'S SCHISTOSOMIASIS PATIENTS TREATED WITH PRAZIQUANTEL

TEREZINHA M. B. ALMEIDA*, LUIZ C. DA SILVA**, VAGNER F. ALMEIDA & WILLY BEÇAK*

* Serviço de Genética, Instituto Butantan, São Paulo ** Instituto de Medicina Tropical, Av. Dr. Eneas de Carvalho Aguiar 470, 05403 São Paulo, SP, Brasil

The scientific community and public health authorities have been concerned about the spread of schistosomiasis in several countries, Brazil included. Despite the emphasis on means of evaluation and control, Manson's Schistosomiasis remains endemic in this country. Praziquantel — an anti-helminthic drug — considered the most efficient against all types of pathogenic schistosomes to man has taken the place of the majority of schistosomacidal drugs for its effectiveness and tolerance (Camargo et al., 1982). The purpose of this work is to verify the possible cytotoxic effect of Praziquantel on the proliferation of peripheral blood lymphocytes from patients with Manson's schistosomiasis treated with a single oral dose of 50 mg/kg. Thirty-five patients of both sexes, ages ranging from 18 to 60 years old, of similar

socio-economic status and living habits have been monitored using short-term lymphocyte cultures (Beçak et al., 1961). Blood was sampled before, 3 and 24 hours after treatment. Mitotic indexes were analyzed in blind test, in preparations harvested 72 hours after incubation. The analysis of variance did not show any significant difference at a 5% level among the three samples (F = 1,403 < 3,07 < F(2,102) $(\alpha = 0.05)$. The data suggests that treatment with Praziquantel does not suppress the proliferation of human lymphocytes in culture. The same result was obtained by Odum et al. (1984) when Praziquantel was added to the culture medium. This study is part of a project which includes evaluation of cytotoxic, cytogenetic and genotoxic activities of Praziquantel in patients with Manson's schistosomiasis.