

## SUMMARY OF THESIS\*

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GARCIA, Eliane Timoteo – Dinâmica da resposta imune humoral contra antígenos circulantes de *Schistosoma mansoni* no modelo experimental em camundongos pré e pós tratamento com oxamniquine. São Paulo, 2000. (Dissertação de mestrado – Faculdade de Ciências Farmacêuticas da Universidade de São Paulo)

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### IMMUNE HUMORAL RESPONSE TO CIRCULATING ANTIGENS OF *Schistosoma mansoni* IN MICE EXPERIMENTALLY INFECTED BEFORE AND AFTER OXAMNIQUINE TREATMENT

The dynamics of the IgM and IgG antibody response to *S. mansoni* circulating antigens was studied in three groups of *S. mansoni* infected mice (60-80 cercariae/animal), before and after chemotherapy. Two groups were treated with oxamniquine (100 mg/kg) and the third one was kept with no treatment. One group without infection was followed as a negative control.

The IgG and IgM reactivity patterns against different antigenic structures on worm sections was studied by immunofluorescence test. The presence of IgM and IgG antibodies reacting to gut antigens started to be observed from the 2<sup>nd</sup> week of infection peaking up between 8 and 12 weeks. In successfully treated animals no antibodies were detected at the end of the experiment. Some mice of the second treated group showed eggs in the fecal examination, after chemotherapy, but tendency to decay of antibody levels was also observed.

By the Elisa test, the IgG antibody levels to total worm antigens and IgM to TCA-soluble fraction showed tendency to decrease in the first

treated group. In the animals of the second group, with *S. mansoni* eggs in the feces after treatment, a drop of IgM antibodies to TCA-soluble fraction was observed but not of IgG against total worm antigens.

The results of *Immunoblotting* showed an intense reactivity of the IgG antibodies against 31/32 adult worm fraction starting around the 6<sup>th</sup> week of infection; some mice showed negative results and for some decay after treatment was observed. The reactivity of the IgM antibodies, observed as a diffuse band against a fraction with high molecular weight, corresponding to the circulating anodic antigen (CAA), showed no tendency to decay in most of the treated animals.

Antibodies against *S. mansoni* gut antigens were observed in animals infected with other parasite species, mainly with *Toxocara canis*. This must be better investigated to understand the significance of the cross reactivities among the different helminth species, and evaluate the use of these tests that detect antibodies against gut associated circulating antigens as a diagnostic tool in schistosomiasis.

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\*This thesis is available at the Library of the Instituto de Medicina Tropical de São Paulo