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LETTER TO THE EDITOR

PRELIMINARY STUDIES ON ANTIGENIC MIMICRY OF *Ascaris lumbricoides*

Sir,

During the last twenty years there has been an increasing number of publications in which the fact that blood group antigens may act as parasite, bacterium and virus receptors is remarked[3,5,9].

Three concepts have been proposed to explain hosts tolerance for a parasite: mimicry, antigenic modulation and natural selection.

The early experimentations which led to the comprehension of the concept of mimicry were performed by CLEGG *et al*.[2] on *Schistosoma mansoni*. They demonstrated that larvae in culture may capture A and B antigens and get covered by them.

Later investigations based on immunofluorescence and mixed agglutination techniques have demonstrated *in vitro* adsorption of H, A, B and Le^a antigen by *Schistosoma mansoni*[4,6,8].

In order to perform our experiments *Ascaris lumbricoides* extracts (AE) were prepared. Adult specimens were washed in physiological solution supplemented with 200 µg/ml of streptomycin and 200 µg/ml of penicillin. After that a refrigerated mechanical rupture was performed for 5 days. The supernatants were collected and kept at –20 °C with a final concentration of timerozal 1:1,000[1,7].

Inhibition agglutination tests were made facing the (AE) against anti A and anti B monoclonal antibodies in optimal concentrations. Suspensions of fresh red cells (A and B groups) were used as a revealing system.

Results demonstrated that (AE) of patients having blood group A inhibit agglutination of anti A antibodies with A red blood cells, and (AE) of patients who have blood group B inhibit agglutination of anti B antibodies with B red blood cells.

In a second experience these (AE) were faced against sera of patients suffering from ascariasis. (AE) of blood group A patients were found to inhibit agglutination of anti A antibodies with A red blood cells of patients group B (anti A) as well as (AE) of blood group B patients were found to inhibit agglutination of anti B antibodies with B red blood cells of patients group A (anti B).

These preliminary experiences suggest that *Ascaris lumbricoides* may adsorb A and B antigens of the host for antigenic mimicry.

Current investigations have a definitive objective: to determine the moment in the life cycle of a parasite in which this adsorption takes place. It might probably be in larval stages in which the parasite moves following the haemetic way.

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