

## SUMMARY OF THESIS\*

COELHO, Leíla Inês de Aguiar Raposo da Câmara - Acompanhamento da resposta humoral de pacientes da Amazônia ocidental com leishmaniose, antes e após tratamento. Manaus, 1999. (Dissertação de Mestrado – Fundação Universidade do Amazonas).

### FOLLOW-UP OF THE HUMORAL RESPONSE OF PATIENTS WITH LEISHMANIASIS FROM THE WESTERN AMAZON REGION, BEFORE AND AFTER TREATMENT

Indirect immunofluorescence (IIF-IgG) and enzyme immunoassay (ELISA-IgG) were used to assess the humoral response of patients with American tegumental leishmaniasis (ATL) in the cutaneous (CL), mucocutaneous (MCL) or mucosal (ML) forms and with visceral leishmaniasis (VL), originating from the state of Amazonas and from other states of the Western Amazon Region and attended at the Tropical Medicine Foundation (TMF). The importance of the results for the diagnosis and follow-up of the patients was assessed before and after treatment. The results were compared to the clinical data and to at least one technique of parasitological or immunological diagnosis, direct detection of parasites in the lesion, histopathological examination, parasite culture, inoculation of hamsters, and Montenegro skin test. For the IIF-IgG test we analyzed the performance of the following antigens: M2682 (MHOM/BR/74) reference strain of *Leishmania (Leishmania) chagasi* (from Pará); M320446 (MHOM/BR/89) also *L. (L.) chagasi* (from Roraima); PH8 (IFLA/BR/67) reference strain *L. (L.) amazonensis*, Lainson & Shaw, 1972 and M81889 (MHOM/BR/89) also *L. (L.) amazonensis* (from Amazonas) and compared them to the antigen distributed by the Ministry of Health/Brazil (MH/BR), used in the present study as the control standard for the search of antibodies of the IgG class. The antigens used for ELISA were PH8 and M81889. The 81 patients whose sera were analyzed were seen at FMT. The cut-off point for the IIF test was 1:20 for all antigens used and 1:40 for ELISA. The correlation of the frequency distribution of the antibody titers in the IIF test in the presence of the cited strains before and after treatment was

calculated by nonparametric data analysis using the Sign Test. The indices of diagnostic performance (IDD), of precision and sensitivity (S) and specificity (Sp) were determined and the positive (PPV) and negative (NPV) predictive values were measured. With the IIF test, the CL form showed S = 77.8% to 95.2%; Sp = 3.8 to 7.1%. PPV was 21.9 to 60.6% and NPV 33.3% to 50.0%. For both the CML and VL forms, the IIF test showed S = 100%, Sp = 5.6% to 12.5%, PPV = 18.2 to 33.3%, and NPV = 100%. We observed that the data were lower for CL than for the other forms of the disease, in contrast to ELISA, in which the indices were higher for CL than for CML and VL. Thus, for CL, S = 100.0%, Sp = 7.7%, PPV = 45.5%, and NPV = 50.0%. For both the CML and VL forms, ELISA showed S = 90.9%, Sp = 7.7%, PPV = 45.5%, and NPV = 50.0%. The strains whose results most closely resembled the MH/BR standard were PH8 and M81889. On the basis of the IDD obtained, we also conclude that when the IIF test was used the PH8 and M81889 strains reproduced results very close to those obtained with the strain recommended by the MH/BR and could be routinely used in laboratories working with leishmaniasis.

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