EVALUATION OF MACROSCOPIC CHANGES, CYTOKINE LEVELS AND PARASITE LOAD IN HETEROLOGOUS PROTECTION MEDIATED BY RECOMBINANT PROTEINS IN HAMSTERS AGAINST VISCERAL LEISHMANIASIS

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The lack of an effective vaccine for the prophylaxis and control of leishmaniases makes them more serious, especially visceral leishmaniasis (VL), due to the severity of its clinical picture. The vaccines with the greatest immunogenic potential are based on the construction of recombinant proteins, which have shown most efficacy in experimental models. In this context, the proteins Enolase and MORN repeat-contaning 1 (MORN1) were evaluated in murine model, showing immunogenic potential and a significant reduction in parasite load in the organs most affected by VL (spleen and liver). Assays on hamsters (*Mesocricetus auratus*) are recommended for a more robust evaluation of these proteins, as this model shares clinical characteristics of the disease observed in dogs and humans. The aim of this study was to evaluate the efficacy of a vaccine composed of recombinant *Leishmania braziliensis* proteins against experimental visceral leishmaniasis in hamsters, focusing on the production in cytokines intracytoplasmic evaluated through of flow cytometry and quantification of parasite load in the animals by qPCR (*Quantitative Polymerase Chain Reaction*). The cellular response indicated an increase in CD4+ cells producing the cytokines IFN-γ and TNF, accompanied by a reduction in IL-10 levels in the immunized groups. Macroscopic analysis of the spleen revealed splenomegaly in the control groups compared to the other experimental groups. These results were associates with a reduction in the hepatosplenic parasite load, particularly in the groups immunized with the complete vaccine compositions (Enolase, MORN1 and Saponine adjuvant). Thus, the results show significant immunogenicity, especially in the groups immunized with the complete vaccine compositions, highlighting the vaccine relevance of the two proteins in a model of susceptibility to VL.

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Palavras-chave: *Leishmania braziliensis*, Enolase, MORN1.