Prospection of *Leishmania* (*Leishmania*) *infantum* immunodominant exo-antigens for application in the serological diagnosis of visceral leishmaniasis

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Visceral leishmaniasis (VL) is a protozoan infection characterized by a high B lymphocytes polyclonal expansion, resulting in high levels of circulating antibodies in the patients. These antibodies can be detected by different serological tests using particulate or soluble antigen to diagnose the disease. However, it is still necessary to search for an antigen which, when applied in a serological test, produces high rates of sensitivity and specificity for VL diagnosis. To this end, exo-antigens obtained from supernatant of *L. infantum* after 72 hours of cultivation in protein-free medium were subjected to the bidimensional electrophoresis and transferred to PVDF membrane. The membranes were submitted to the Western blotting using sera sample pools from: 10 VL patients, 10 Chagas disease patients, 10 tegumentary leishmaniasis patients and 10 health individuals. Thirty and six immunoreactive spots against VL sera pool were excised from an identical polyacrylamide gel. So far, 12 immunoreactive spots were identified by MS/MS mass spectrometry analyses, amongst them heat shock proteins (HSP 83, HSP83.1 and HSP70), cysteine peptidase and bisphosphoglycerate-independent phosphoglycerate mutase of *L. infantum*. The nucleotide sequence corresponding to the immunodominant exo-antigens identified in this study will be used to produce the recombinant antigens to be employed in the development of an enzyme immunoassay for the VL diagnosis.

Keywords: Visceral leishmaniasis; Immunodominant antigens; Serological diagnosis

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