Characterization of the recombinant protein OmpL1 of *Leptospira interrogans*

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**INTRODUCTION.** Leptospirosis is a zoonosis caused by pathogenic spirochete of genus *Leptospira*. The identification of conserved outer membrane proteins among different pathogenic strains is the main target of vaccine research. **OBJECTIVES.** To evaluate the immunological response induced by rOmpL1 protein in mice, its capacity to adhere to serum proteins and extracellular matrix components, and its ability to recognize antibodies presented in confirmed leptospirosis human samples. **MATERIAL AND METHODS.** BALB/c mice were immunized, bled and the antibody response evaluated by ELISA and Western blotting. Splenocytes were isolated for evaluation of lymphocyte proliferation and cytokine profile. Binding assays and reactivity with antibodies present in serum of confirmed leptospirosis samples were performed by ELISA. **RESULTS.** High antibody levels were detected and lymphocyte proliferation experiment showed stimulation due to the recombinante protein, and a mixture of Th1/Th2 profile was observed. rOmpL1 is capable to adhere to plasminogen, laminin and plasma fibronectin with different affinities. **CONCLUSION.** The adhesion of the recombinant protein suggests their involvement in the infection process. The high reactivity of rOmpL1 with serum samples of confirmed leptospirosis specimens indicates its expression during infection and highlights its importance as a candidate for diagnostic test development.

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