HISTOPATHOLOGICAL EVALUATION OF THE LIVER IN HAMSTERS IMMUNIZED WITH GENETICALLY ATTENUATED *Leishmania infantum* DEFICIENT IN KHARON1 AS A PROPHYLACTIC STRATEGY AGAINST VISCERAL LEISHMANIASIS

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Visceral Leishmaniasis (VL) is one of the most concerning neglected diseases worldwide, with the number of cases continuously increasing. This rise is linked to parasitic resistance to drugs, failures in vector control, co-infections, and the lack of effective vaccines. Despite scientific efforts, there are still no licensed vaccines for humans, and those available for dogs have limited efficacy. Therefore, new prophylactic strategies are essential. Among the most promising approaches is the use of live genetically attenuated parasites, such as *Leishmania infantum* KHARON1 (*Li*KH), which promotes a broader antigenic spectrum and stimulates a protective immune response. The present study evaluated histopathological alterations in the liver of hamsters (*Mesocricetus auratus*) immunized with *Li*KH. The animals received one or two doses of the vaccine via subcutaneous or intradermal administration and were analyzed one and eight months after the challenge with virulent *L. infantum* promastigotes. The results indicated significant differences in body and organ weights, which were more evident in animals that received two doses, regardless of the administration route. Histopathological analyses revealed a more intense inflammatory process in the liver of animals evaluated eight months after the challenge, suggesting an active long-term immune response. These findings reinforce the potential of *Li*KH immunization as a promising approach against VL. Future studies may further explore these findings, consolidating the hamster model and driving the development of live attenuated parasite-based vaccines for dogs.

Keywords*: Leishmania infantum*, hamster, KHARON1

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