

CELLULAR AND HUMORAL IMMUNE RESPONSES INDUCED IN DOGS BY
IMMUNIZATION
WITH A2 ANTIGEN AGAINST *L. CHAGASI* INFECTION

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A2 is an amastigote antigen that is protective against *L. donovani*, *L. chagasi* and *L. amazonensis* infections in mice. In this work, the immune responses induced in dogs by vaccination with recombinant A2 protein were investigated. Beagles were vaccinated with recombinant A2 (rA2) and challenged with *L. chagasi* promastigotes. Anti-A2 and anti-total parasite antigenic extract (LcPA) antibody levels (IgG1, IgG2 and total IgG) were measured by ELISA, before and after challenge. Levels of IFN- γ and IL- were assessed by sandwich ELISA. Before challenge, vaccinated animals produced significant levels of total IgG and IgG2 anti-A2, but not IgG1 antibodies and remained negative for anti-LcPA antibodies. Significantly increased IFN- γ and low IL-10 levels were detected in vaccinated animals, as compared to the control group. After challenge, significantly increased IL-10, anti-LcPA total IgG and IgG1 levels were detected in control infected animals. These results indicated that immunization with A2 induces Th1 immune responses and allows the serological differentiation between vaccinated and infected dogs, important requirements for a canine visceral leishmaniasis vaccine.

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