

**STUDY OF SEROCONVERSION OF DOGS AFTER VACCINATION AGAINST CANINE LEISHMANIOSIS.**  
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The visceral leishmaniasis is one endemic illness that occurs in Brazil and the ethiological agent belongs to *Leishmania chagasi* species, being the dog the most important reservoir of this parasite in urban area, demonstrating chronic evolution of the illness. It presents great contingent of infected animals with cutaneous parasitism, symptomatic, non-symptomatic or oligosymptomatics, that serve as source of infection for the insects vectors, being an important link in the transmission of the pathology. Canine leishmaniasis (CL) is considered one of the most important canine disease at this moment and efforts are made to control the disease in dogs and humans. At this moment, there are two licensed vaccines against canine leishmaniasis at the market and some concern about the use of these vaccine and undistinguish healthy vaccinated animals from sick or reservoir animals. The difficulties in the determination of the status could have serious impact for owners, private veterinaries and public health professionals involved in control because in Brazil the control (supported by legislation) is based in sacrifice of sick and reservoir dogs defined by serologic methods. The purpose of this work is document the lack of seroconversion of animals vaccinated with a vaccine based in fucose mannose ligand using current kits approved in Brazil. One hundred and forty one (141) samples of sera from dogs vaccinated with complete scheme recommended by the producer (three dosis of vaccine Leishmune – FortDodge Animal Health) are tested. The samples were tested using two serological methods: Enzyme Linked Immuno Sorbent Assay (ELISA) and Indirect Immunofluorescence Assay (IFA), both using licensed kits following the instructions of producer (ELISA – Biogene, IFA – Biomanguinhos) and using positive and negative serum control. Serum-positive animals were tested for the presence of parasite using Immuno-histochemistry (IHC) of ear skin and/or direct examination of linfonode aspirate using Giemsa stain. One hundred and thirty seven (137) samples from animals result negative (not reagent) in both tests corresponding 97,16% of the samples. Four samples result in positive (reagent) in both tests (2,83%) and samples for detection of parasite were collected and result in presence of agent by direct examination and/or IHC. These four animals showed signs compatible with CL, confirming the sick status probably due a vaccination failure or pre-existing undetectable contaminated dog at the moment of vaccination. These data suggest; a- vaccination with Leishmune vaccine does not induce detectable antibodies using current kits used in Brazil, b- sick animals with or without vaccination could be detect by current methods used in Brazil, c- serology (ELISA + IFA) could be used to differentiate health animals and sick/reservoir animals. Such findings are important for efficient actions of prophylaxis and control of the CL.