

## Leish022- Assessment of liver histological alterations in dogs naturally infected with *L. infantum*

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**Introduction:** Canine visceral leishmaniasis (CVL) is a protozoan disease caused by *Leishmania chagasi/ infantum* and is endemic for humans and dogs in many regions in Brazil. Dogs are considered to be the main domestic reservoir. Dogs constitute an excellent model to study leishmaniasis, because they share many clinical, immunological and pathological features with humans VL. The aim of the present study was to assess liver histological alterations in dogs naturally infected with *Leishmania chagasi*. **Material and Methods:** We examined 39 animals from an endemic area, the city of Jequié, Bahia. The animals were grouped into four categories: a) 9 infected-symptomatic dogs; b) 10 infected-asymptomatic dogs; c) 9 non-infected-symptomatic dogs; d) 10 normal dogs. Histological evaluation was performed in a blind manner. **Results:** The results shows that infected-symptomatic dogs differed significantly from the others with respect to the frequency of portal inflammation ( $p<0.003$ ), granulomas in portal tracts ( $p<0.04$ ) and parasitism ( $p<0.01$ ). Only 1 out of 10 dogs in the infected-asymptomatic group had parasites in the liver, while 8 out of 9 infected-symptomatic animals had parasites. It is interesting to note that granulomas in infected-symptomatic animals were found to be permissive to parasites, while in the infected-asymptomatic group, only one dog had parasites. Moreover, dogs with parasites in the liver presented more splenic architectural disturbance than dogs without parasites in the liver. **Main Conclusions:** These findings suggest that the evaluation of liver biopsies may provide important information on the evolution of CVL and indicate that the functional analysis of granulomas is required to provide relevant information regarding the factors related to the mechanisms involved in parasite survival. **E-mail:** isadora@aluno.bahia.fiocruz.br