PARASITO2025
29º CONGRESSO BRASILEIRO DE PARASITOLOGIA

DETECTION OF ANTI-*LEISHMANIA INFANTUM* ANTIBODIES IN DOMESTIC CATS IN THE MUNICIPALITY OF RIO DE JANEIRO

ANNY LEITÃO DE SOUZA[1,2] ; RAISSA CRISTINA FERREIRA RAMOS [1,2]; IGOR FALCO ARRUDA[1,2] ; WAGNER JOSÉ TENÓRIO SANTOS[3], EDMILSON DOMINGOS SILVA[3], SANDRO ANTONIO PEREIRA[4], RODRIGO CALDAS MENEZES[4]; IVETE LOPES DE MENDONÇA[5]; RENATO PORROZZI DE ALMEIDA[1] ; MARIA REGINA REIS AMENDOEIRA[1]

[1]: LABORATÓRIO DE PROTOZOOLOGIA, INSTITUTO OSWALDO CRUZ - FUNDAÇÃO OSWALDO CRUZ – RJ, BRASIL
[2]: PROGRAMA DE PÓS-GRADUAÇÃO *STRICTO SENSU* EM MEDICINA TROPICAL, INSTITUTO OSWALDO CRUZ – FUNDAÇÃO OSWALDO CRUZ – RJ, BRASIL
[3]: LABORATÓRIO DE TESTES SOROLÓGICOS, BIOMANGUINHOS – FIOCRUZ
[4]: LABORATÓRIO DE PESQUISA CLÍNICA EM DEMATOZOONOSES EM ANIMAIS DOMÉSTICOS, INSTITUTO NACIONAL DE INFECTOLOGIA EVANDRO CHAGAS – FIOCRUZ
[5]: LABORATÓRIO DE SANIDADE ANIMAL, UNIVERSIDADE FEDERAL DO PIAUÍ

Abstract

Several studies have suggested a potential role of cats in the transmission cycle of zoonotic visceral leishmaniasis (ZVL). In this context, it is crucial to understand the role of these animals in the cycle of urban leishmaniasis to improve disease management and control. This study investigated the presence of anti-*Leishmania infantum* antibodies in cats treated at the Jorge Vaistman Municipal Veterinary Medicine Center, Rio de Janeiro (RJ), with the aim of identifying the exposure of these animals to the parasite. For this purpose, the LVC-BioManguinhos diagnostic kit was used. This test was adapted and standardized with the anti-IgG antibody for felines (Goat anti-Cat IgG – Fc HRP Conjugated). In this study, 278 blood samples from domestic cats, which showed no clinical signs of leishmaniasis, were collected between 2017 and 2018, from regions with a high incidence of ZVL. Positive and negative controls were provided by the team at the Federal University of Piauí. Anti-*L. infantum* antibodies were found in 48 (17.2%) of the 278 sera analyzed. The presence of seropositive animals indicates the need to acquire knowledge about the current prevalence of feline infection in the region, in order to prevent the transmission of this neglected zoonosis, which poses a potential risk to both human and animal health. To control cross-reactivity with *Sporothrix* spp., a highly endemic fungal infection in domestic cats in the city of Rio de Janeiro, an ELISA test was performed with 10 serum samples. Of these, 8 (80%) were seroreactive for *L. infantum*. These results may represent cases of cross-reaction or subclinical coinfection in the animals investigated for *L. infantum* and the fungus causing sporotrichosis. The possibility of cross-reactivity with *Sporothrix spp.* highlights the need for more specific serological tests to allow a more accurate seroepidemiological study.

Supported by: IOC/FIOCRUZ; CAPES

Keywords: leishmaniosis, cats, serology