

RESUMO - PROTOZOOLOGIA E PATÓGENOS TRANSMITIDOS POR
VETORES

**EVIDENCE OF LEISHMANIA INFANTUM CIRCULATION IN FELINE
POPULATIONS FROM THE MIDWESTERN REGION, BRAZIL**

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Feline leishmaniasis has been investigated using both molecular and serological approaches, with reported average prevalence rates 8% in Brazil. In the state of Goiás, however, no previous studies have sampled felines from endemic areas

to test for leishmaniasis. Nevertheless, in other Brazilian states, clinical follow-up of infected cats and epidemiological investigations have already documented the circulation of the parasite in feline populations. Therefore, the present study aimed to detect the circulation of *Leishmania infantum* among cats in the state of Goiás. A total of 134 felines were sampled from five municipalities in the state: four endemic areas (Cavalcante, Teresina de Goiás, Pirenópolis, and Porangatu) and the capital, Goiânia, where no autochthonous canine cases have been reported to date. Conjunctival swabs and blood samples were obtained. Blood samples were divided into two tubes: one containing EDTA and another containing a serum separator gel. The samples were tested by real-time PCR (qPCR) targeting the kDNA gene and by the indirect immunofluorescence antibody test (IFAT). DNA from conjunctival swabs was extracted using an adapted phenol–chloroform protocol, whereas DNA from blood samples was extracted using a commercial Blood DNA Kit (Biogene®, Shirley, New York, United States). Among the 134 cats evaluated, three animals (2.2%) had *Leishmania* DNA detected by qPCR in conjunctival swabs from Goiânia two and Teresina de Goiás one, and one animal (0.7%) was positive for *L. infantum* DNA in a blood sample from Teresina de Goiás. By IFAT, six animals were seroreactive (4.5%). The highest antibody titer detected was 160 in one animal from Porangatu, while the remaining animals showed titers at the cut-off value of 80. The seroreactive animals were distributed as follows: two from Cavalcante, one from Teresina de Goiás, one from Pirenópolis, and two from Porangatu. These findings demonstrate the circulation of *Leishmania* among felines in Goiás, particularly in municipalities where the disease is already established among dogs and humans, as observed in endemic areas of the state. This evidence suggests that, in locations where transmission is already occurring, cats may act as potential hosts and could contribute to the emergence of new infections in susceptible animals or humans. Considering these findings, the role of cats in the epidemiology of leishmaniasis deserves further investigation. Future epidemiological studies should be conducted, and control measures should also consider this species to prevent new cases of this zoonosis.

Palavras-chave: conjunctival swab; blood; ifat; leishmaniasis; qpcr.