RESUMO SIMPLES - PROTOZOÁRIOS E AGENTES TRANSMITIDOS POR VETORES DE IMPORTÂNCIA EM SAÚDE

MOLECULAR AND CYTOLOGICAL INVESTIGATION OF BACTERIA FROM MYCOPLASMATACEAE FAMILY IN BLOOD SAMPLES FROM DOGS AND CATS TREATED AT A UNIVERSITY VETERINARY HOSPITAL

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Mycoplasmosis is a disease caused by epicellular bacteria of the genus Mycoplasma spp., belonging to the family Mycoplasmataceae, class Mollicutes. Mycoplasmosis is an important cause of hemolytic anemia in felines, although some animals may be asymptomatic carriers. Mycoplasma haemofelis, Candidatus mycoplasma haemominutum, and Candidatus mycoplasma turicensis are the main species, with the first being the most pathogenic. In

dogs, mycoplasmosis has been rarely reported and diagnosed in Brazil. Dogs can be affected by two species: Mycoplasma haemocanis, formerly called Haemobartonella canis, and Candidatus Mycoplasma haematoparvum, both causing opportunistic infections in tissues with inflammatory processes resulting from other causes. In addition to anemia, urogenital and respiratory diseases have also been described. The low sensitivity of blood smears for detecting this and other hemoparasitic diseases leads to underdiagnosis and lack of treatment, compromising the clinical improvement of these animals. The objective of this study was to detect bacteria of the Mycoplasmataceae Family using molecular and cytological methods in samples from dogs and cats treated at the University Veterinary Hospital of the Federal Rural University of Rio de Janeiro (HVPA-UFRRJ). A total of 338 blood samples were collected for complete blood count (CBC) analysis at the Veterinary Clinical Pathology Laboratory (LABVET/UFRRJ) and subsequently sent to the Hemoparasites and Vectors Laboratory (LHV/UFRRJ) for storage and processing. Genomic DNA was extracted using the Extracta Kit MGBD-P096 (Loccus, Brazil). The detection of Hemoplasmas from the Mycoplasmataceae family was carried out using the primers MYCO 322S and MYCO938aS with amplification of 620 base pairs. Of the 338 samples analyzed, 4,7% (16/338) amplified DNA for Mycoplasma sp., five from dogs and eleven from cats. In the cytological analysis of the blood smear, no structures suggestive of Mycoplasma sp were observed in red blood cells. No animals positive for Mycoplasma sp. had suspected mycoplasmosis or any typical changes in blood count such as anemia. In this study, PCR proves to be the most sensitive test for detecting this hemoparasitosis.

Palavras-chave: hemoplasma; infection hemoparasitosis.