RESUMO SIMPLES - OUTRAS ÁREAS TEMÁTICAS

MYCOPLASMA SPP. AND FELINE LEUKEMIA VIRUS COINFECTION IN A DOMESTIC CAT

Elian De Almeida Cardoso (elian.cardoso@ufrrj.br)

Isabelly Cristina Duque De Oliveira (isabellydmed.vet@gmail.com)

Marcos Roberto Barros Freitas (marcosfreitasvet@gmail.com)

Gerlaine Barbosa Vianna (gerlainebarbosa@id.uff.br)

Fabíola Aparecida De Oliveira Nogueira (fabiolanogueiravet@gmail.com)

Taynara Mendonça Gueivara Lima (taynara.lima@ufrrj.br)

Julia Cecilia Medeiros Barros (juliaceciliamb@gmail.com)

Alexandre Carvalho Costa (alex.c.costa@hotmail.com)

Cristiane Divan Baldani (crisbaldani@gmail.com)

Juliana Macedo Raimundo (julianam_rj@hotmail.com)

Mycoplasma species, also known as hemoplasmas, are gram-negative bacteria that adhere to the surface of erythrocytes and cause hemolytic anemia in various hosts. In cats, infection may be asymptomatic or progress to anemia of varying severity, potentially leading to death, especially when coinfection with immunosuppressive agents are present. Transmission may occur through blood transfusion, fighting, and possibly through bites from Ctenocephalides felis, although the role of this ectoparasite is not yet fully understood. Although blood smear evaluation is used for diagnosis, its low sensitivity limits its effectiveness,

making polymerase chain reaction (PCR) the most appropriate technique. Another globally important pathogen is the feline leukemia virus (FeLV), an enveloped retrovirus associated with immunosuppression, bone marrow alterations, and neoplasms such as lymphoma. Diagnosis includes serological detection of the p27 antigen and PCR for viral RNA or proviral DNA. The present case report aims to describe the clinical and laboratory findings associated with FeLV and Mycoplasma spp. coinfection in a feline patient. A female domestic cat was admitted to UFRRJ Small Animal Practice Hospital exhibiting pronounced lethargy, inappetence, dehydration, and markedly pale and icteric mucous membranes. A blood sample was aseptically collected via cephalic venipuncture for hematological, biochemical, serological, and molecular analyses. Complete blood counts were performed initially by using an automated hematology analyzer, and confirmed afterwards by manual blood smear review. The evaluation revealed severe normochromic macrocytic anemia (hematocrit of 5%), leukopenia (5.200 cells/μL), lymphopenia, anisocytosis, and icteric plasma. Blood smear evaluation under optical microscopy demonstrated erythrocyte agglutination consistent with immune-mediated hemolytic anemia and the presence of epierythrocytic inclusions suggestive of hemoparasites of the genus Mycoplasma. Biochemical analysis revealed azotemia and a moderate increase in serum transaminases levels. The chromatographic immunoassay performed on a whole blood sample yielded a positive result for the FeLV p27 antigen, and Mycoplasma spp. infection was confirmed by conventional PCR targeting the 16S rRNA gene. Subsequently, the patient received a blood transfusion and was treated with antibiotics, corticosteroids, hepatoprotective agents, and antiemetics, remaining under continuous clinical monitoring. One week after the initiation of pharmacological therapy and transfusion support, Mycoplasma DNA was no longer detected by PCR. The findings of this case highlights the importance of simultaneous investigation of hemoplasmas and retroviruses in cats presenting with hemolytic anemia, considering that FeLV-induced immunosuppression may increase susceptibility to secondary infectious agents. This report contributes to the understanding of the clinical and laboratory manifestations associated with this coinfection and reinforces the need for accurate diagnosis approaches to guide appropriate therapeutic management.

Palavras-chave: hemoplasma; retrovirus; feline; diagnosis; pcr.