RESUMO SIMPLES - OUTRAS ÁREAS TEMÁTICAS

PERICARDIAL EFFUSION ASSOCIATED WITH EHRLICHIA CANIS AND BABESIA VOGELI

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Pericardial effusion is defined as the abnormal accumulation of fluid within the pericardial cavity. In dogs, it is commonly associated with neoplasia, trauma, metabolic disorders, or myocarditis. Although considered rare, pericardial effusion can also be linked to infectious diseases. Recent literature has described associations between the hemoparasitic diseases, ehrlichiosis and anaplasmosis, and the development of pericardial effusion in dogs. In Brazil, ehrlichiosis, caused by the bacterium Ehrlichia canis, and babesiosis, caused by protozoa of the genus Babesia spp., are endemic hemoparasitoses that

cause significant hematological and systemic alterations. This report aims to describe a case of pericardial effusion secondary to co-infection with Ehrlichia canis and Babesia vogeli in a stray dog from the Federal Rural University of Rio de Janeiro (UFRRJ) campus. A 4-year-old, 15.6 kg mixed-breed dog was presented at the Veterinary Hospital following an episode of syncope and a staggering gait after exercise. On physical examination, the dog was active but exhibited pale mucous membranes and generalized lymphadenomegaly. Initial diagnostic investigations included laboratory tests, lymph node cytology, and ultrasound. Findings revealed non-regenerative anemia (hematocrit 13%), hypoalbuminemia (1.3 g/dL), mild azotemia, cytology suggestive of reactive lymphoid hyperplasia, and echocardiographic evidence of pericardial effusion with early signs of cardiac tamponade and myocarditis. Given the clinical presentation, the patient underwent emergency pericardiocentesis and a blood transfusion. To control the effusion, prednisolone was prescribed at 1 mg/kg SID for 3 days. The pericardial fluid was submitted for cytological analysis and molecular testing (PCR) for Ehrlichia canis and Babesia vogeli. Cytology revealed a non-septic exudate with the presence of morulae compatible with Ehrlichia canis; PCR confirmed the presence of both Babesia vogeli and Ehrlichia canis. To further elucidate the case, a bone marrow aspirate was collected for molecular testing for Leishmania spp., which yielded a negative result. Based on these findings, the instituted therapeutic protocol consisted of doxycycline (10 mg/kg SID PO for 28 days) and two subcutaneous injections of imidocarb dipropionate (5 mg/kg) administered 14 days apart. Upon re-evaluation one week after initiating treatment and pericardiocentesis, the patient showed significant clinical improvement. According to the literature, babesiosis and ehrlichiosis can cause severe anemia as well as nonspecific clinical signs such as fever, lethargy, lymphadenopathy, anorexia, vasculitis, and myocarditis. In this case, the patient presented with expected hematological alterations, though notably without fever, prostration, or anorexia. The literature reports an association between Ehrlichia canis and Babesia spp. co-infection leading to cardiac alterations such as arrhythmias and myocarditis. However, there is only one previous report linking Ehrlichia canis to pericardial effusion. To the authors' knowledge, no association between Babesia vogeli and pericardial effusion has been reported to date. The diagnosis of pericardial effusion with subsequent cardiac tamponade was confirmed by echocardiography. The association with the aforementioned hemoparasites was established through molecular (PCR) and cytological methods. Therefore, this case report describes a novel association between hemoparasite co-infection and the development of

pericardial effusion. It is concluded that this association, although uncommon, can occur in dogs. Furthermore, veterinarians should consider ehrlichiosis and babesiosis as differential diagnoses in cases of pericardial effusion, particularly in endemic regions.

Palavras-chave: pericardial effusion; hemoparasites; cardiac tamponade; ehrlichiosis; babesiosis.