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SUCCESSFUL MANAGEMENT OF ACUTE BABESIOSIS IN A DOG

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Canine babesiosis is a tick-borne disease caused by Babesia spp. Dogs with uncomplicated babesiosis typically show pale mucous membranes, fever, anorexia, depression, water-hammer pulse, and splenomegaly. The complicated form can include acute renal failure, cerebral babesiosis, coagulopathy, icterus and hepatopathy, immune-mediated hemolytic anemia (IMHA), acute respiratory distress syndrome (ARDS), hemoconcentration. This case report describes the presentation, diagnosis, and management of acute systemic inflammatory response syndrome (SIRS) in a dog affected by Babesia canis. A Border Collie, intact male, 8-years-old, was presented in emergency setting showing weakness, anorexia and 'pigmenturia' started 2 days before. The dog was used as cattle dog in Piedmont region and recently moved to Tuscany. Dog showed fever (38.2°C), tachycardia with weak pulse (110 bmp), dyspnea (30 rr), pale mucosae. The thorax ascultation revealed mild attenuation of lungs sounds. Bilateral miosis, positional nistagmus and absence of pupillary light reflex were observed. Mean arterial pressure (MAP) was 67 mmHg. An hypovolemic shock was suspected. Oxygen via face mask at 5 Lt/min and isotonic cristalloyds IV at 30 ml/kg as bolus were administered. Synthetic colloids (Infuplas ®) were then also administered at 5 ml/kg IV. After 45 minutes dog rise, MAP slightly increase to 75 mmHg. Blood collection was carried out. Laboratory findings revealed a mixed acid-base disturbance with hyperlactatemia, hyperbilirubinemia (1.33 mg/dl); mild (Hct 27.8%) normocytic-chromic non-regenerative anemia, severe leukopenia (1.17 K/μl) with neutrophil left shift, thrombocytopenia (9 K/μl); hyperfibrinogenemia (812 mg/dl); increase of ALKP (936 U/L), AST (239 U/L), ALT (144 U/L), CK (789 U/L), mild hypoalbuminemia (2.3 g/dl) and elevated C-reactive protein (2.60 mg/dL) and urea (131 mg/dL); severe hematuria. SIRS was suspected. Pleural effusion and alveolar pulmonary pattern was detected at chest X-ray. Abdominal ultrasound revealed acute inflammation of liver with venous stasis and abdominal fluid.The fluid cytological exam was subtyped as aseptic transudate. A blood smear exam revealed the presence of pyriform-shaped organisms singly or paired within RBCs referable to Babesia canis. Antibabesial (imidocarb) and antimicrobial (doxicicline) drugs with supportive care (fluid therapy, vitamins and liver support) are the mainstays of babesiosis treatment. Dog was hospitalized for a week and discharged in good condition. This case of canine babesiosis was successfully treated. Until the protozoan was evidenced in the blood smear the diagnosis remained presumptive.The development of neurologic signs is associated with a high mortality rate. Neurological symptoms quickly improved after fluidstherapy and oxygen support; we hypothesize that the neurological symptoms could be related to the SIRS. Babesiosis includes manifestations that can not be explained by haemolysis alone but appear to be the result of the systemic inflammatory response to the parasite, rather than the actions of the parasite itself.

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