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Case Report on Sepsis by Alpha-Hemolytic Streptococcus and Mannheimia haemolytica in Neonate Dogs

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Abstract : Neonatal sepsis is a systemic response of acute infection by bacteria that may lead to high mortality in a litter. This study aims to report a case of sepsis by alpha-hemolytic Streptococcus and Mannheimia haemolytica in neonate dogs. A pregnant, mixed-breed bitch at approximately the 60th day of pregnancy was admitted to the Sao Paulo State University (UNESP) Veterinary Hospital, Botucatu, Sao Paulo, Brazil, and subjected to a c-section due to uterine atony and fetuses no heartbeats on the ultrasound examination. The mother presented leukopenia of 1.6 thousand leukocytes, and there was no other information regarding previous clinical history. Among the offspring, four were stillborn, and five were born alive. On clinical examination, neonates weighed between 312 and 384 grams. Reflexes were present, and the newborn's body temperature was between 89.9 ºF and 96.4 ºF. Neonates also presented clinical signs of neonatal infection: omphalitis, abdomen, and extremities with cyanotic color, hematuria, and diarrhea (meconium). Complementary tests revealed leukopenia. The presence of alpha hemolytic streptococcus and Mannheimia haemolytica was revealed in the bacterial culture. The bacteria were sensitive to cephalosporins and penicillin on the antibiogram. Treatment for sepsis was instituted with the drug ceftriaxone, at a dose of 50 mg per kilogram, administered intravenous (jugular vein). Subsequently administered subcutaneous, every 12 hours, for seven days. Heated fluid therapy was performed, with Ringer lactate, at a dose of 4 ml per 100 grams of weight, intravenous. Heating measures were instituted. Blood plasma was also administered, at a dose of 2 mL per 100 grams of weight, administered subcutaneous, as a source of passive immunity. A maternal milk substitute was instituted, and lactation was discontinued since the mother was unable to nurse due to the infection. The mother was neutered during the c-section and treated with ceftriaxone (50 mg/kg). After seven days, the newborns presented normal clinical signs and no alterations in the hemogram. Early diagnosis and intervention were essential for the survival of these patients.

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