Titulo: Occurrence of sepsis in dogs examined at the Veterinary Hospital - UFMT Cuiaba, Mato Grosso, Brazil.

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Resumo:

Sepsis is defined as the presence of infection, accompanied by a syndrome named systemic inflammatory response (SIRS), which leads to a collapse of multiple organs in their later stages. In this study, eighty-eight dogs with suspected sepsis, which originated from the Small Animals Medical Clinic Hospital of the Federal University of Mato Grosso were analyzed. Blood cultures from two different anatomic sites were performed using the System Hemobac Pedriatric three phase (Probac do Brasil®) in aerobic condition at 37°C for up to 7 days. DNA extraction followed by PCR for detecting bacterial 16S rDNA (primer 27f and 1492r) and fungi ITS region (primer ITS4 and ITS5) were performed on blood samples which amplify a fragment of approximately 1500bp and 500pb respectively. Susceptibility was tested against fourteen different antibiotics in bacterial isolates by disc diffusion method. Twenty samples (22,7%) were positive on blood cultures, with a total of 23 bacterial isolates. The more frequent diagnostic found infection were pyometra (40%), urinary tract infection (16%), pneumonia (11%), skin disorders (7%). Other possible causes infection were observed with nonspecific signs (26%), including peritonitis, fracture and signs suggestive of sepsis without distinguishing the infectious focus. *Staphylococcus* spp. (9/23) and *Escherichia coli* (7/23) were the most frequently isolated bacteria. There was no fungal isolation in blood cultures. Ceftriaxone was the tested antibiotic with highest sensitivity (90,6%) and clindamycin that showed the highest resistance (19% sensibility). In bacterial PCR, 46 animals were positive (53,48%) and only one sample was positive to fungi DNA (1,1%). PCR test detected more positive animals than isolation technique because, probably, it is a more sensitive test both to bacterial and fungal sepsis. Fungemia is associated with substantial mortality in immunosuppressed human patients. The non-isolation of fungi in blood cultures can be due to the low incidence rate of fungemia as primary cause of infection and low cases of immunosuppressed dogs. In this study, PCR has important diagnostic value in infections in which there is difficulty in isolating blood culture as anaerobes and fastidious growth or to slow and in cases where the concentration of microorganisms in blood is insufficient for cultivation.

Palavras-chaves : hemoculture, bloodstream infection, bacteremia, fungemia, canine.

Agência de Fomento: CAPES