1 - Pregraduate Education

PO-016 - (23958) - SENSITY OF THE CYTOBLOCK TECHINIQUE FOR THE DIAGNOSIS OF LEISHMANIOSIS IN DOGS

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Visceral leishmaniasis (VL) is a zoonosis caused by protozoa and transmitted by vectors. In Maranhão, the disease is hyperendemic. The parasitological examination is standard, but cytoinclusion is an effective and less invasive diagnostic alternative. This study aimed to evaluate the sensitivity and specificity of the cytoinclusion technique in lymph node and bone marrow samples.

The UEMA Ethics Committee approved the study (no 17/2020). Fifteen dogs were selected from the UEMA Veterinary Hospital positive for VL. Bone marrow and lymph node punctures were performed for cytopathological, cytoinclusion, and immunohistochemistry (IHQ) examinations. The cytoinclusion involved centrifugation, standardization of fixation, and histological and stained processing by Giemsa.

Of the 15 samples evaluated in bone marrow, cytology detected 66.67% positive, cytoinclusion 26.67%, and immunohistochemistry 88.67%. All negative cases in IHC were also negative in cytology and cytoinclusion, indicating the high specificity of the method. IHC obtained better results in the lymph node at 86.6%, followed by cytology at 66.6% and cytoinclusion at 33.3%.

Despite allowing higher cell concentration, the cytoinclusion showed a lower detection rate than cytology, showing that the latter is superior in identifying and quantifying the parasite. The cytology was better to visualize the amastigotes. Immunohistochemistry was more effective in detecting the parasite, probably due to the cell separation process during centrifugation. The antigen-antibody reaction facilitated the identification of amastigote forms.

Cytoinclusion combined with immunohistochemistry showed advantages, such as preserving cell architecture and longer storage time, allowing retrospective analysis. It shows that this examination is complementary to the diagnosis of VL.

Palavras-chave : LEISHMANIOSIS, CANINE, CYTOBLOCK