

## THE ROLE OF CYTOLOGY IN THE DIFFERENTIAL DIAGNOSIS OF LYMPHADENOPATHIES IN DOGS

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Lymphadenopathy, localized or generalized, means an increased volume of the lymph nodes. It is a frequently encountered condition in dogs with complex etiology involving local or systemic dysfunctions. Lymphadenopathy is classified into reactive, inflammatory, primary tumors - lymphomas and secondary tumors - metastases. The present study aims to highlight the role of the cytological examination in the differential diagnosis of lymphadenopathy in dogs.

The study was performed on forty dogs diagnosed with lymphadenopathy in the Teaching Veterinary Hospital of the Faculty of Veterinary Medicine of Bucharest. The samples were obtained by fine needle aspiration technique (FNA), the smears were done by stretching technique, and May-Grunwald Giemsa staining was used. The smears were examined under an optical microscope with 200, 400, and 1000 magnification.

The vast majority (53%) of lymphadenopathies were diagnosed in dogs between 6 and 10 years of age, showing a predilection for adult animals. In this study, no significant correlation could be identified between the occurrence of lymphadenopathies and the breed or sex of the dogs. The most common lymphadenopathy were primary tumors, 24/40 cases being lymphomas (60%), followed by reactive hyperplasia, 7/40 cases (17.5%), secondary tumors-metastases, 7/40 cases (17.5%) and 2/40 cases (5%) of lymphadenitis, both pyogranulomatous. Regarding lymphomas, of the 24 diagnosed cases, centroblastic lymphoma was identified as the most common form (13/24), followed by lymphoblastic lymphoma (6/24), centroblastic-immunoblastic lymphoma (4/24) and immunoblastic lymphoma (1/24). Regarding lymphnodal metastases in our study, 5/7 were carcinomatous, associated with breast tumors, and 2/7 were associated with melanomas, oral and cutaneous.

The role of the cytological examination in the case of lymphadenopathy in dogs is essential because it can provide a quick, simple, minimally invasive and, in most cases, definitive diagnosis. All the cases included in the study had definitive diagnostics using cytology, confirming cytology examination's accuracy and specificity in evaluating dogs' lymph nodes.

***Keywords: cytology, differential diagnosis, dog, lymphadenopathies.***