

## A case of Chronic Lymphoid Leukemia in a Dog

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**Introduction:** Lymphomas are the most common hematopoietic tumor affecting dogs and cats. It is defined as a proliferation of malignant lymphoid cells affecting primarily the lymph nodes or solid visceral organs, such as the liver or spleen. Leukemias originate from hematopoietic precursor cells in the bone marrow. It is difficult to differentiate between lymphoma and leukemia.

**Materials and methods:** A 4-year 5-month old male Tosa dog was presented to the Veterinary Medical Center of Chungbuk National University with 4 months' history of lymphadenopathy, and ataxia. CBC, blood chemistry, serum electrolytes, lymph node fine needle aspiration (FNA), bone marrow examination, urine analysis, heartworm test, *Ehrlichia canis* test, radiography and ultrasonography were performed for differential diagnosis.

**Results:** The CBC showed leukocytosis, lymphocytosis, and neutrophilia. Serum biochemistry indicated increased total protein and globulin level. Large lymphocyte and many nucleolis were seen on the smear of lymph node FNA. Also, many nucleolis in the lymphocytes were seen on the smear of peripheral blood. The serum electrophoresis showed monoclonal gammopathy. It was positive on heartworm test. Lymphoid cell proliferation was confirmed cytological examination on the bone marrow examination. On the basis of these results final diagnosis was chronic lymphoid leukemia.

**Clinical relevance:** Differential diagnosis is difficult in white blood cell disorder which is concerned with lymph nodes and bone marrow. In this case final diagnosis was done by bone marrow, lymph nodes, and peripheral blood examinations.

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