IV Congreso latinoamaericano de oncologia veterinaria (SLOVET)

Transformed or composed T-cell lymphoma: Case report

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INTRODUCTION

T-zone lymphoma (TZL) is the most common subtype of indolent lymphoma in dogs with its hallmark being the lack of CD45 expression. In general, watchful waiting is advised, however, there are signs to start treating that should not be confused with transformation to a more aggressive phenotype. This phenomenon is well described in humans, but underestimated in dogs, although it is recognized as a possible evolution of indolent lymphomas/leukemias.

CASE REPORT

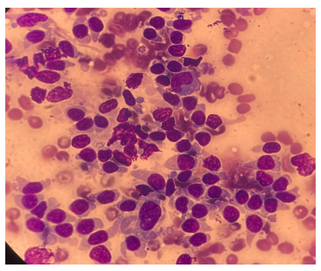
A clinical case of an 11 years old, male, Golden Retriever, is described, who presented submandibular lymphadenopathy of 6-months of evolution as the only clinical sign. Puncture of the right submandibular lymph-node was performed for cytology and immunophenotyping (flow cytometry). In addition, routine hematological, biochemical (renal profile, liver function, calcium and LDH activity) and imaging studies were performed.

45 days later, consulted again for progressive weight loss, apathy and generalized lymphadenopathy and it was decided to repeat the paraclinical studies.

RESULTS

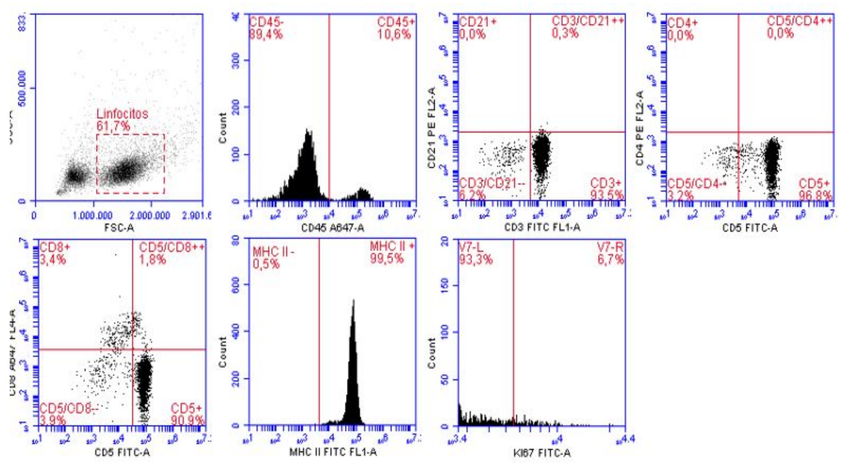
In the first consultation the cytology (low-grade, hand-mirror-cells) and immunophenotypic (CD45-) studies confirmed TZL' diagnosis. In addition, mild lymphocytosis and eosinopenia were evident.

Right lymph node cytology



Lymphocytes 80% of intermediate size, with a typical hand mirror shape.

Right submandibular lymph node flow cytometry

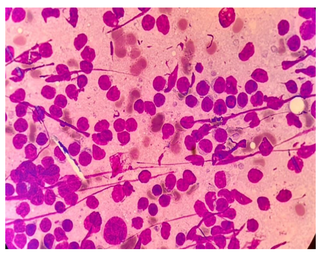


Graphic representation of the immunophenotype performed by flow cytometry. A CD45-, CD3/CD4++ phenotype is observed, being double negative for CD4/CD8–.With MHC II expression and a Ki67 of 5%.

In the subsequent consultation, 45 days after diagnosis, non-regenerative anemia and an increase in LDH enzyme activity were also observed. Cytology of the prescapular lymph nodes showed discrepant results (low and high grade) and immunophenotyping showed TCD45+/CD8+ positivity, corresponding to a lymphoma originating from cytotoxic T lymphocytes.

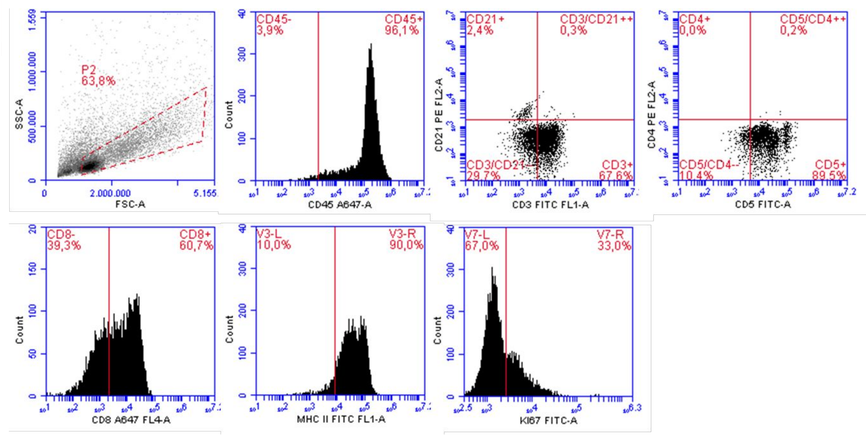
RESULTS

Prescapular lymph node cytology



High size lymphocytes (50%) together with equal number of small lymphocytes.

Right submandibular lymph node flow cytometry



Graphic representation of the immunophenotype performed by flow cytometry.
A CD45+, CD3/CD5/CD8+++ phenotype is observed. With MHC II expression and Ki67 33%.

DISCUSSION

The present case aims to demonstrate the transformation of TZL to an aggressive T-cell lymphoma or the coexistence of two tumor subtypes of T-cell lymphoma in the same patient. To our knowledge, none of them have been previously reported in T-cell lymphoma in canines. However, both events have been described in humans and dogs with B-cell lymphomas. These events can be explained by changes in the gene expression profile of neoplastic lymphocytes. However, exactly how tumor metabolism, which is altered by these genetic lesions, contributes to disease aggressiveness is not known, and therefore the metabolic changes that occur during lymphoma transformation are poorly understood.

CONCLUSION

Clinical data and correct interpretation of paraclinical studies, allowed us to detect the aggressiveness of the tumor and subsequently establish the appropriate treatment and accurate prognosis.

ACKNOWLEDGMENTS

This research was funded by the Agencia Nacional de Investigación e Innovación (ANII grant number FMV_3_2020_1_162741).