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CLASS II MAJOR HISTOCOMPATIBILITY COMPLEX EXPRESSION IN DIFFERENT LYMPHOMA IMMUNOPHENOTYPES

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### Introduction

Canine lymphoma represents a heterogeneous group of neoplasms that arise from malignant transformation of lymphocytes. In canines, it presents a wide range of outcomes ranging from aggressive to an indolent clinical course of disease. While low MHC-II expression proves to be a strong predictor of poor prognosis in canine B-lymphomas, in T-cell lymphoma the expression is variable and, there is no work comparing the expression between immunophenotypes.

# **Objectives**

To determine whether the MHC-II expression are related to lymphoma immunophenotypes (LB, LTCD45+, and LTCD45-).

### **Methods**

44 dogs diagnosed with multicentric lymphoma (27 LB, 7 LTCD45+, 10 LTCD45-) at the Veterinary Hospital of Uruguay were prospectively included. The immunophenotyping and mean fluorescence intensity (MFI) of MHC-II were determined by flow cytometry on aspirates of enlarged lymph nodes. The expression "low" or "bright" were assigned based on Rao et al. (2011). Statistical analyses were performed with PAST-4.03. The group effect on MHC-II expression was analyzed by Kruskal–Wallis-test (not normal distribution) and Mann–Whitney-test to compare groups.

#### **Results**

LTCD45+ showed the lowest expression of MHC-II, while no differences were observed between LB and LTCD45-. In addition, when evaluated the percentages of positivity of MHC-II, regardless of the MFI, its exceeded 98% in all B and TCD45- lymphomas, however, in 4 of 7 TCD45+ lymphomas didn't reach 10%. Low MHC-II expression were reported on none, 7.4% and 43% of LTCD45-, LB and LTCD45+, respectively.

# **Conclusions**

MHC-II expression differed among the immunophenotypes of canine lymphoma. Further study is necessary to investigate the role of MHC-II in prognosis.

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