

Evaluation of Clinico-Pathological Alterations Including Some Leukocyte Ratios and Survival Rate in Dogs with IMHA Transfused and Not Transfused: A Retrospective Study

29th ECVIM-CA Congress, 2019

G. Lubas¹; A.A. Medina Valentin¹; A. Gavazza²; A. Aramonte¹; P. Simcic¹; V. Marchetti¹; G. de Feo¹

¹University of Pisa, San Piero a Grado, Pisa, Italy; ²University of Camerino, Camerino, Italy

Immune-mediated hemolytic anaemia (IMHA) is a common hematological disorder in dogs. It can be primary or secondary and it is characterized by anti-RBC antibodies production. IMHA requires a detailed diagnostic pathway as well as a complex therapeutic approach that can include blood transfusion. Unfortunately, IMHA presents a high mortality rate, especially within 15 days after onset.

This retrospective study evaluated: a) the clinical and clinico-pathological alterations that influenced the choice to perform a blood transfusion in an IMHA patient; b) if blood transfusion could be an additional therapeutic approach; c) application of leukocyte ratios in the prognosis.

Sixty-seven cases of IMHA, both primary and secondary, admitted to the Veterinary Teaching Hospital between May 2010 and July 2018, were included. Signalment, history, clinical signs, clinico-pathological parameters and survival rate were collected. Patients were divided in two groups: 44 patients (IMHAnt) treated with immunosuppressive therapy alone (primary n=36, secondary n=8) and 23 patients (IMHAt), which received also a blood transfusion (primarily packed RBC) (primary n=16, secondary n=6). For all collected parameters, both groups were statistically compared.

The IMHAt patients compared to IMHAnt patients (un-regarding to primary or secondary cause) presented: worse marks according to Tokyo Score System (TSS) (Chi Squared, p=0.003); a lower erythrocyte count (T-test, p=0.039), hemoglobin concentration (T-test, p=0.029) and platelet count (Mann-Whitney, M-W, p=0.008); a higher value of band neutrophils (M-W, p=0.022), band neutrophil to lymphocyte ratio (M-W, p=0.005), (band neutrophil/neutrophil) to lymphocyte ratio (M-W, p=0.006) and a lower value of lymphocyte to monocyte ratio (M-W, p=0.013); a higher value of C-reactive protein (M-W, p=0.011) and activated partial thromboplastin time (M-W, p=0.014); and a lower survival rate at day 120 (Kaplan-Meyer, logrank, p=0.004) and not at 7, 15 and 30 days. Blood transfusions were performed based on the severity of clinical and clinico-pathological signs.

IMHAt patients showed a more severe disease (according to TSS), a greater acute inflammatory condition and more coagulative defects. The high death rate among IMHAt patients at 120 days was related to their critical condition, which is probably why the desired benefit of blood transfusion wasn't reached. However, a link between blood transfusions and the related worse clinical signs in IMHAt patients could not be ruled-out. Finally, the leukocyte ratios in dogs affected by IMHA were assessed for the first time so far and they were proven to be useful markers of acute inflammation and could have a prognostic value.

DISCLOSURES

No disclosures to report.

SPEAKER INFORMATION

(click the speaker's name to view other papers and abstracts submitted by this speaker)

[G. Lubas](#)

University of Pisa
San Piero a Grado, Pisa, Italy

URL: <https://www.vin.com/doc/?id=9184801>