With all three cleaning protocols no bacterial growth could be detected in any of the 15 chambers tested. The study shows that with manufacturer recommended cleaning procedures adequate bacterial decontamination of feline inhalation chambers can be achieved.

Disclosures

No disclosures to report.

ESVIM-P-6

Evaluation of clinico-pathological alterations including some leukocyte ratios and survival rate in dogs with IMHA transfused and not transfused: a retrospective study

G. Lubas[1], A.A. Medina Valentin[1], A. Gavazza[2], A. Aramonte[1], P. Simcic[1], V. Marchetti[1], G. de Feo[1]
[1]University of Pisa, San Piero a Grado, Pisa, Italy, [2]University 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-Withney, 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.

ESVIM-P-7

Expression of serum exosomal miRNA 122 in dogs naturally infected by Leishmania infantum

A. di Loria[1], V. Dattilo[2], D. Santoro[3], J. Guccione[1], A. de Luca[1], P. Ciaramella[1], C. Riillo[4], M. Pirozzi[5], E. Iaccino[4]
[1]University Federico II of Napoli, Napoli, Italy, [2]University Magna Graecia Department of Health Sciences, Italy, [3]University of Florida, Department of of Small Animal Clinical Sciences, United States of America, [4]University of Magna Graecia, Departement Experimental and Clinical Medicine, Italy, [5]Institute of Protein Biochemistry, National Research Council, Napoli, Italy

Leishmaniasis a zoonosis caused by *Leishmania* spp., is a chronic and often fatal disease for humans and dogs if left untreated. In recent years, microRNAs (miRNAs), a group of small, single-stranded non-coding RNAs able to regulate gene expression have been shown to play a critical role in the development and function of immune responses. While in circulation, free-serum miRNAs are highly degradable, when transported in mycelial vesicles (exosomes) they become stable (protected from RNAse degradation) and reliable diagnostic biomarker in diseased patients. In 2013, using murine animal the role played by exosomes and miRNAs was explored during Leishmania infection; a reduction in the activity of miR-122, the most abundant miRNA present in the liver tissue, was obtained. Very little is known about the role of exosomal miRNA in canine leishmaniasis (CL); in particular, the interaction between exosomal miR-122 and lipid alterations. The aim of this study was 3fold: 1) isolate/characterize exosomes in canine serum obtained from 6 healthy dogs; 2) evaluate their quality/quantity of exosomal miRNAs and proteins; 3) evaluate the expression of serum exosomal miR-122 in 10 healthy dogs and 10 leishmaniotic dogs.

Blood samples were collected for routine hematological/biochemical analyses on healthy dogs or before anti-*Leishmania* therapy. Biochemical panel was completed with a serum cholesterol profile (HDL, LDL). Serum exosomes were isolated using a polymer-based kit and characterized by flow cytometry and electron microscopy. miR-122-5p expression was analyzed via quantitative RT-PCR. Differences between the two groups were statistical analyzed. A P value of <0.05 was considered significant.

This is the first study showing the detection of circulating serum exosomes content of miR122 in in dogs affected by CL. Serum exosomes of 30-130 nm in diameter containing miR-122 and RNU6-2 miRNAs were isolated. A concentration of 12 ng/μL of miRNAs and 10 μg/μL of proteins were recovered. Albumin and HDL were decreased whereas total proteins and LDL were significantly increased in