

The management of canine transfusion reactions reported in some clinics from Transylvania

Laurenț OGNEAN¹, Octavia TAMAS-KRUMPE^{1*}, Meda LASCU², Sergiu MUNTEAN¹,
Mihai-Cristian FEHER¹, Cristina TODORAN¹, Cecilia DANCIU¹, Andreea BUTA¹

¹University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Romania

²Manager of Happy Pets Veterinary Clinic SRL, Oradea, Romania

¹Mănăștur Street no. 3-5, Cluj-Napoca, Romania

²Horea Street no.25, Oradea, Romania

*Corresponding author, e-mail: octavia.tamas@usamvcluj.ro

Abstract

The transfusion of blood products is an essential and also a common therapeutic procedure used in veterinary medicine. Because blood transfusion is not a completely harmless therapeutic procedure, its usage requires a good amount of knowledge about the possible adverse effects and complications that may occur during this process. This kind of data is exactly what the present study brings to doctors attention, being based upon the management of various forms of transfusions reactions in canines which were given whole blood, erythrocyte concentrate (EC) or blood plasma (P). The main objectives were preventing, monitoring and treatment of this reaction type. The clinics included in this study reported multiple forms of transfusion reactions in canine patients, such as: severe tachycardia (no=5); passing hyperthermia (40°C) (no=5); emesis and melaena during transfusion (no=3); myoclonic head seizures and bruxism (no=1); delayed hemolytic anemia (AHI) (no=1); TRALI type respiratory syndrome (no=1). In most cases, these symptoms subsided after a few minutes from transfusion or stopped completely, except the last two cases, which presented severe reactions, without any response to treatment and resulting in death. This kind of complications resulted due to AHI condition in a patient with chronic renal failure (the diagnosis was based on pollakiuria, haematuria and BUN/creatinine ratio of 28.4) and the evolution of TRALI respiratory syndrome in another patient with malignant multicenter lymphoma (cytologically confirmed). The AHI type of post transfusion reaction diagnosis and management was done by monitoring the decreasing oscillations of the whole blood mass, after 3 transfusions with whole blood. The TRALI syndrome (Transfusion-Related Acute Lung Injury) diagnosis was based upon cytological examination and later, necropsy.

Keywords: adverse reactions, blood products, dog, transfusion.