Oral presentations

Retrospective clinical evaluation of cats receiving whole blood transfusions and frequencies of blood types at a UK private referral hospital

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OBJECTIVES

To assess prevalence of blood type and indication for transfusion including patient outcome, transfusion efficacy and reactions in cats admitted to a single institution.

METHODS

A retrospective case series was performed selecting feline patients where whole blood transfusions were indicated, that were blood typed using typing kits and

identified through database searches between 01-01-2008 and 01-08-2018.

RESULTS

Searches identified 166 blood typed patients; 64 received 68 whole blood transfusions. Prevalence of blood types for domestic cats ($n = 116$) was 76.7%, 18.1% and 5.2%; for pedigree cats ($n = 50$), 78.0%, 20.0% and 2.0% for groups A, B and AB respectively. Transfusions ($n = 68$) were divided into groups 1–3 respectively; destruction of red blood cells (RBC's) ($n = 25$), reduced erythropoiesis ($n = 15$) and loss of RBC's ($n = 28$). Survival rate to >30 days post-transfusion was 56.0%, 6.7% and 53.6% for groups 1–3. For trauma patients within group 3 ($n = 14$) survival rate to >30 days was 78.6%. Total transfusion and transfusion naive reaction incidences were 22.1% and 21.3% respectively. Half of cross matched patient reactions (26.7%) and of the two severe reactions were transfusion naive. Three formulae previously used to estimate post-transfusion packed cell volume (PCV) were applied to a subpopulation ($n = 43$); donor PCV and post-transfusion PCV (≤ 48 hours) were recorded. Bland-Altman analysis compared PCV rise with each formula's estimation. Formula 1 assumed 2 ml/kg of whole blood increased PCV by 1%, achieving the lowest overall bias (0.27%).

STATEMENT (CONCLUSIONS)

Sourcing feline blood is challenging therefore prognosis should be thoroughly considered before transfusion. Overall prevalence of transfusion reactions was 22.1%.

Red blood cell blood transfusions and occurrence of adverse reactions: a retrospective study in 101 dogs

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OBJECTIVES

To describe type and frequency of canine transfusion reactions; to investigate any correlation as to their occurrence.

METHODS

Retrospective study of dogs receiving red blood cell transfusions between 1/10/15 and 1/7/18 at a single referral centre.

RESULTS

165 transfusion events were recorded in 101 dogs. 129 transfusions were packed red blood cells (pRBCs), 36 whole blood (WB). Chlorphenamine was administered before 9/165 transfusions.

Adverse reactions were recorded in 44/165 transfusion events; 23/44 were febrile non-haemolytic reactions (increase in rectal temperature $>39.2^{\circ}\text{C}$). Vomiting alone was recorded in 7/44 dogs; 5/44 with hyperthermia and 1 vomit with increased respiratory effort. Acute haemolytic reactions occurred in 5/44 dogs, 2 dogs showed haematuria. Increased respiratory effort (4/44), acute tachycardia (3/44) cases, acute tachypnoea (1/44), anaphylactoid reaction (1/44), respiratory arrest (1/44) and neurological signs compatible with thromboembolic event (1/44).

59/101 dogs receiving a transfusion were affected by an immune mediated disease; 30/59 (52%) had a

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