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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transfusion reaction. 25/30 adverse events occurred after a pRBCs transfusion; 5/30 after WB transfusion. The portion of adverse reactions was (37/129) with pRBCs and (7/36) after WB. 23/44 (52%) reactions occurred in dogs receiving single transfusions; 17/44 (38%) occurred after multiple transfusions. Of the 43 dogs receiving multiple transfusions, 10 (23%) had repeated reactions.

STATEMENT (CONCLUSIONS)

Immune-mediated disease was the commonest cause of transfusion-dependent anaemia. Treatment with corticosteroids did not decrease the incidence of transfusion reactions. Performance of more than one transfusion was not associated with an increased risk of adverse reactions.

The influence of prior corticosteroid administration on diagnostic imaging findings in dogs with Immune-Mediated Haemolytic Anaemia

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OBJECTIVES

To evaluate whether prior corticosteroid administration influences imaging findings in dogs with immune-mediated haemolytic anaemia (IMHA).

METHODS

Retrospective review of case records of a referral population of dogs with IMHA, for whom medical histories and thoracic and/or abdominal imaging studies were available.

Cases were classified based upon presence (S+) or absence (S-) of corticosteroid administration prior to

referral. Thoracic and abdominal imaging findings were categorized into (a) clinically significant findings altering case management or follow-up, including potential triggers; (b) incidental, clinically insignificant; (c) attributable to IMHA; (d) normal. For statistical analysis, significant imaging findings (a) versus non-significant imaging findings (b, c and d) were compared in S+ and S- dogs, using χ^2 test to determine whether prior corticosteroids significantly influenced imaging findings.

RESULTS

55 dogs met the inclusion criteria, comprising 23 S+ and 32 S-. 46 had thoracic and abdominal imaging. 2 and 7 dogs had only thoracic or abdominal imaging, respectively. The 48 thoracic studies comprised 25 computed-tomographic and 23 plain radiographic. The 53 abdominal studies comprised 24 computed-tomographic and 29 ultrasonographic.

Thoracic imaging findings were clinically significant in 6/19 S+ dogs and 6/29 S- dogs. Abdominal imaging findings were clinically significant in 13/22 S+ dogs and 19/31 S- dogs. Incidence of clinically significant thoracic or abdominal imaging findings did not differ between S+ and S- dogs ($p < 0.05$).

STATEMENT (CONCLUSIONS)

In this population, prior corticosteroid administration did not significantly influence imaging findings. Imaging for underlying disease in IMHA is therefore considered worthwhile, even if corticosteroids have been administered.

Presenting signs and clinical outcome in dogs with metaphyseal osteopathy, 32 cases (2009–2018)

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OBJECTIVES

To describe presentation, treatment, and clinical outcome of dogs with metaphyseal osteopathy.

METHODS

Multi-centre retrospective review of medical records from January 2009 to September 2018 at three referral