Oral presentations

Blood product transfusions in cats: a retrospective study evaluating recipient disease processes and outcome

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OBJECTIVES

Investigate the indications for blood product transfusions in cats, the incidence of transfusion reactions and recipient outcome.

METHODS

Data was collected using records from a UK university referral hospital. All cats that received a blood product transfusion between February 2016 and August 2018

were included. Underlying disease process was classified as impaired erythropoiesis, haemolysis or haemorrhage. Occurrence of transfusion reaction, length of hospitalisation and survival to discharge were recorded. Chi-squared tests were performed to assess for differences in survival between aetiology groups.

RESULTS

A total of 198 cats were included with 52 requiring more than one blood product transfusion. Underlying aetiology was most commonly haemolysis (34%), followed by impaired erythropoiesis (23%) and haemorrhage (18%) with 25% having more than one cause of anaemia or no diagnosis. Blood products transfused were feline packed red blood cells (151) or whole blood (58), canine packed red blood cells (50) and autologous blood (2). The incidence of transfusion reaction was 18% with febrile non-haemolytic transfusion reaction the most common (78%). 69% of cats that received a blood product transfusion survived to hospital discharge. There was no significant difference in survival based on aetiology.

STATEMENT (CONCLUSIONS)

The survival to discharge rate was high in this sample of referred patients receiving blood product transfusions. This suggests that with appropriate case selection the prognosis of transfused cats (in the short term) can be good regardless of underlying disease process.

Prevalence and prognostic value of elevated serum total bilirubin in septic cats and dogs

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OBJECTIVES

Hyperbilirubinaemia is a common finding in septic patients. This study aimed to identify the prevalence and degree of hyperbilirubinaemia in septic cats and dogs and determine its prognostic value.

METHODS

Retrospective study of dogs and cats with septic peritonitis and pyothorax. Normalised serum total bilirubin concentration, length of hospitalisation and mortality were recorded. Exclusion criteria were haemolytic anaemia, hepatic disease or biliary disease. Chi-square tests

were used to compare prevalence of hyperbilirubinaemia between cats and dogs and between septic peritonitis and pyothorax. Spearman's rank correlation assessed association between total bilirubin concentration and length of hospitalisation. Chi-square and Fisher's exact tests compared survival to discharge in hyperbilirubinaemic and non-hyperbilirubinaemic patients.

RESULTS

72 dogs and 23 cats with septic peritonitis and 48 dogs and 19 cats with pyothorax were included in the study. The median canine total bilirubin concentration was 2.73mmol/l (range -0.1mmol/l to 59.1mmol/l [0-2.4mmol/l]) and for cats was 8.9mmol/l (range 0mmol/l to 70.8mmol/l [0-3mmol/l]). Hyperbilirubinaemia was significantly more prevalent in septic peritonitis cases (70.5%) than in pyothorax cases (37.3%) ($p = 0.00003$). There was no significant difference in the prevalence between the species ($p = 0.062431$). There was a correlation between serum total bilirubin and length of hospitalisation in cats ($r = 0.4333$, $p = 0.0212$) but not in dogs ($r = 0.1717$, $p = 0.1329$). There was no difference in survival between hyperbilirubinaemic and normobilirubinaemic patients.

STATEMENT (CONCLUSIONS)

Elevated serum total bilirubin concentration is common in septic patients. It can be marked and may be associated with more severe disease.