Evaluation of the use of routine coagulation testing to predict haemorrhage during invasive procedures in cats

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OBJECTIVES

In people the usefulness of routine coagulation testing to predict haemorrhage during surgical procedures has been questioned. This study aimed to determine if significantly prolonged activated partial thromboplastin time (aPTT) and/or prothrombin time (PT) was associated with increased incidence of bleeding during invasive procedures in cats.

METHODS

Medical records for client-owned cats with aPTT and PT measured before invasive procedures were retrospectively

reviewed from January 2010 – May 2016. Cats with an incomplete medical record, significant thrombocytopenia, or previous vitamin K administration were excluded. Procedure types were grouped and haemorrhage scored from 1-4 (1; significant bleeding requiring surgical intervention, 2; significant bleeding requiring medical intervention, 3; non-significant bleeding, no interventions, 4; no comments, no interventions).

RESULTS

Fifty-three procedures in twenty-one cats met the inclusion criteria. Procedures included biopsies (33%), fine needle aspirates (54%), abdominal surgery (3%) and oesophagostomy tube placement (7%). Eleven cats (52%) had significantly prolonged aPTT and one (4%) had significantly prolonged PT (≥ 1.5 times reference range). Significant bleeding was recorded in 5.6% of procedures performed (0% score 1, 5.6% score 2, 1.8% score 3, 92% score 4). Bleeding occurred in 6.8% (significantly prolonged aPTT), 5.8% (normal/mildly prolonged aPTT) and 5.7% (normal/mildly prolonged PT) of procedures respectively. The only cat with significantly prolonged PT also had significantly prolonged aPTT and did not bleed.

STATEMENT

In this study prolonged aPTT did not predict bleeding complications in cats. Small numbers precluded conclusions about PT. Prospective studies are warranted to further evaluate the reliability of coagulation testing to predict bleeding during invasive procedures.

Pericardial catheter placement in 18 Dogs

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OBJECTIVE

To describe the use of pericardial catheters in dogs with pericardial effusion (PE), and detail any associated adverse events.

METHODS

A veterinary teaching hospital's computerised records between May 2007 and January 2015 were searched for 'pericardial effusion.' Dogs with a pericardial catheter placed by Seldinger technique were included in the study. Cause of PE, details of catheter placement and use and adverse events were recorded. Cases were excluded if medical records were incomplete. Data were analysed using commercially available software.

RESULTS

Eighteen eligible cases were identified. Twelve dogs had a neoplastic cause for PE, 4 were idiopathic and 2 had no cause identified prior to death or euthanasia. All pericardial catheters were placed within 5 hours of presentation, with a mode of 1 hour. Ten cases were sedated with butorphanol (+/- midazolam, n=4). Four dogs had pericardial catheters removed after a single drainage. The other catheters remained in situ for a median of 18 hours (Range 2–88). Ten dogs had repeat drainage via the catheter. The only adverse events recorded were ventricular arrhythmias in 10/18 cases, with 4 patients requiring lidocaine treatment.

CLINICAL SIGNIFICANCE

The use of pericardial catheters in dogs for the management of PE appears safe, being associated with an incidence of arrhythmias requiring treatment (22%) similar to that reported with needle pericardiocentesis. Catheter placement can be beneficial in aiding initial PE drainage and is useful if repeat drainage of PE is required as it may decrease patient stress and personnel requirements.

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