Sensitivity and specificity of serum bile acids and biochemical variables to assess postoperative closure of congenital extrahepatic portosystemic shunts in dogs

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OBJECTIVES

To assess sensitivity and specificity of paired serum bile acids (SBA) and other serum biochemistry variables to predict shunt status in dogs 3 months after surgical attenuation of a congenital extrahepatic portosystemic shunt (EHPSS).

METHODS

Dogs with surgically attenuated EHPSS were retrospectively enrolled if blood sampling and medical imaging (transsplenic portal scintigraphy and/or computed tomography angiography) were performed 3 months postoperatively.

RESULTS

Fifty-two surgical cases were included. Three months post-operatively, shunt closure was successful in 29 dogs and non-successful in 23 dogs (13 dogs had a patent original shunt and 10 dogs developed multiple acquired shunts). Paired serum bile acids and alanine aminotransferase (ALT) activity were significantly higher in the non-successful group compared to the successful group ($p < 0.0001$ and $p = 0.0006$). Sensitivity and specificity assessment of SBA and ALT gave optimal results at 50 $\mu\text{mol/L}$ and 80 U/L, respectively (upper reference limits 15 $\mu\text{mol/L}$ and 90 U/L). The sensitivity and specificity of the combined SBA > 50 $\mu\text{mol/L}$ and ALT > 80 U/L to diagnose non-successful EHPSS closure were 75% and 91%, respectively.

STATEMENT (CONCLUSIONS)

Dogs with combined SBA > 50 $\mu\text{mol/L}$ and ALT > 80 U/L results 3 months postoperatively were very likely to have either a patent or acquired shunts. However, when combined SBA and ALT results were below the proposed cut-offs, that less reliably indicated surgical success.

Sleep disordered breathing in the Cavalier King Charles Spaniel: a case series

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OBJECTIVES

Obstructive sleep apnoea has been widely investigated in human medicine, but relatively few studies have described this condition in veterinary species; to date it has only been reported in English Bulldogs, French Bulldogs and Pugs. The aim of this study was to report the clinical features, diagnosis, management and outcome of five cases of obstructive sleep apnoea in the Cavalier King Charles Spaniel (CKCS).

METHODS

A retrospective case series was created using hospital records over five years, followed up via recheck appointments and a telephone questionnaire. The inclusion criteria consisted of CKCSs presenting primarily for sleep disorders, which were treated surgically for obstructive anatomical pathology.

RESULTS

All five cases presented with stertorous breathing, choking and apnoea during sleep. All cases had a number of co-morbidities: 5/5 had eosinophilic stomatitis and otitis media, 4/5 had mitral valve insufficiency and 3/5 had syringomyelia. CT and rhinoscopy revealed that 5/5 had aberrant nasal turbinates, nasal septal deviation and soft palate thickening and 3/5 had nasopharyngeal thickening and tracheal collapse. Treatment consisted of a combination of laser turbinectomy, folding flap palatoplasty, tonsillectomy, laryngeal saccullectomy and cuneiform process resection. All cases had an improvement in both the incidence and severity of sleep apnoea within a week, with 4/5 cases achieving complete resolution.

STATEMENT (CONCLUSIONS)

This study concludes that obstructive sleep apnoea is a condition that may affect the CKCS and all five cases

described here improved following surgical intervention. Consequently, sleep disordered breathing is a presentation that veterinary surgeons should be aware of in this breed.

Complications and survival associated with surgical intervention for oesophageal foreign bodies

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OBJECTIVES

To retrospectively report the complications and survival associated with oesophageal foreign bodies requiring surgery.

METHODS

Data were retrospectively collected from the hospital records of all dogs that had undergone a surgical procedure associated with an oesophageal foreign body (2008–2017).

RESULTS

Sixteen dogs met the inclusion criteria. Jack Russell terriers, Staffordshire bull terriers and West Highland white terriers were the most common breeds (n=2 each). Mean age was 5.4 years (SD 3.1).

Mean time from ingestion to presentation was 3 days (SD 2.7). The most common oesophageal foreign body was bone (11/16); all in the distal oesophagus. Endoscopic retrieval was attempted in 10/16 and fluoroscopic retrieval in 3/16. 7/16 were taken to surgery as the foreign body was unable to be retrieved, 6/16 due to an oesophageal rupture, 1/16 for a pyothorax and 2/16 for mediastinal abscesses.

Mean surgical time was 133.7 minutes (SD 75.6). The oesophagus was closed with 2 Metric PDS in a single, simple interrupted pattern in 5 dogs and simple continuous in 3.

One dog developed pneumonia 1 day post-operatively which resolved. Three died in the post-operative period due to septic shock. At long term follow up (n=13), 9 were still alive and 1 had died of unrelated causes (mean 1759 days).

STATEMENT (CONCLUSIONS)

Based on our results, the majority of dogs undergoing surgical repair for oesophageal foreign bodies survive to discharge and this should be considered as a treatment option where other options have failed or resulted in a surgical complication.