

Interpretive Summaries

SMALL ANIMALS

Evaluation of a focused assessment with sonography for trauma protocol to detect free abdominal fluid in dogs involved in motor vehicle accidents

A focused assessment with sonography for trauma (FAST) protocol was established for examination of the abdomen of dogs and prospectively evaluated in 100 dogs that were involved in motor vehicle accidents. Free abdominal fluid was detected via FAST in 45 of the 100 dogs. In 40 of these 45 dogs, abdominocentesis was performed; results of analyses of fluid specimens were consistent with hemoperitoneum in 38 dogs and uroperitoneum in 2 dogs. On the basis of the results of this study, the FAST examination appears to be a useful diagnostic procedure to help identify intra-abdominal free fluid in dogs that have been involved in motor vehicle accidents. It is a rapid, noninvasive procedure that can be performed during the initial stabilization of dogs after abdominal trauma and by veterinary clinicians without extensive ultrasonographic experience.—S. R. Boysen et al (*J Am Vet Med Assoc* 2004;225:1198–1204).

Use of a jugular vein autograft for reconstruction of the cranial vena cava in a dog with invasive thymoma and cranial vena cava syndrome

A spayed female dog was evaluated because of edema of the ventral cervical region, lethargy, cough, and reduced exercise tolerance. Invasive thymoma and cranial vena cava syndrome were diagnosed by use of ultrasound-guided fine-needle biopsy and contrast-enhanced helical computed tomography. Resection of the cranial vena cava and an autogenous jugular vein graft were used for restoration of normal venous return to the right atrium and alleviation of the cranial vena cava syndrome.—I. G. Holsworth et al (*J Am Vet Med Assoc* 2004;225:1205–1210).

Use of cyclosporine to treat granulomatous meningoencephalitis in three dogs

Three dogs with a presumptive diagnosis of granulomatous meningoencephalitis were treated with orally administered cyclosporine. In 2 dogs, cyclosporine administration replaced initial corticosteroid administration, and in 1 dog, cyclosporine was the only treatment used.

One dog had the focal form of the disease in the brainstem, 1 dog had the focal form in the forebrain associated with a concurrent ocular form, and 1 dog had the

disseminated form of disease. At 12-month follow-up, the 2 dogs with the focal form of the disease had no clinical signs. The dog with the disseminated form improved only partially, and euthanasia was performed 3 weeks after initial evaluation. Cyclosporine was considered effective at an initial dosage of 6 mg/kg (2.7 mg/lb) every 12 hours. Adverse effects associated with cyclosporine administration included transient lymphopenia, excessive shedding, and focal symmetric hair discoloration.—F. P. Adamo and R. T. O'Brien (*J Am Vet Med Assoc* 2004;225:1211–1216).

Fracture of an endoluminal nitinol stent used in the treatment of tracheal collapse in a dog

A 5-year-old castrated male Pomeranian was evaluated because of severe dyspnea and coughing, and a diagnosis of complete, static collapse of the trachea at the thoracic inlet was made. After failure to improve with medical management alone, an endoluminal tracheal stent was placed, which resulted in resolution of signs. Ten weeks after stent placement, the dog underwent tracheal resection and anastomosis because the stent had fractured at the level of the thoracic inlet. One year after surgery, the dog was doing well and required treatment with hydrocodone infrequently.

Compared with other surgical treatment options, placement of an endoluminal tracheal stent is a relatively noninvasive intervention that can provide effective relief from the clinical signs associated with tracheal collapse in dogs. Implantation of endoluminal tracheal stents may be associated with complications; therefore, the procedure may best be regarded as a salvage procedure for dogs with end-stage disease that are refractory to appropriate medical management, have extensive collapse of the intrathoracic portion of the trachea, or are poor candidates for surgery.—E. Mittleman et al (*J Am Vet Med Assoc* 2004;225:1217–1221).

Double aortic arch in a dog

Vascular ring anomalies are developmental anomalies of the thoracic great vessels resulting in complete or partial encircling of the esophagus and the trachea by a vascular ring formation. Persistent right aortic arch with left ligamentum arteriosum accounts for 95% of vascular ring anomalies in dogs. The dog in this report had a double aortic arch, which is a type 4 vascular ring anomaly. Double aortic arch is a rare congenital heart defect resulting from the improper development of the embryonic arches. The prognosis for dogs that have undergone surgery for correction of double aortic arches is generally

regarded as poor. The dog in this report underwent surgery for correction of double aortic arches and recovered without dilation or motility disorders of the esophagus. Results indicate that small animals that undergo early surgical correction of double aortic arches with relief of esophageal constriction can have a good prognosis. To the authors' knowledge, there have been no previous reports of dogs that have survived long enough to be discharged from the hospital after surgical correction of double aortic arches.—M. L. Vianna and D. J. Krahwinkel Jr (*J Am Vet Med Assoc* 2004;225:1222–1224).

Massive hepatocellular carcinoma in dogs: 48 cases (1992–2002)

Medical records of 48 dogs with massive hepatocellular carcinoma (HCC) were reviewed to determine the biological behavior; determine whether surgical resection resulted in a better survival outcome, compared with conservative management; and identify prognostic factors. Liver lobectomy was performed for definitive treatment of massive HCC in 42 dogs, and nonsurgical management was used in 6 dogs. Two dogs died during surgery as a result of transection of the caudal vena cava and exsanguination during resection of right-sided HCC. Of the remaining 40 surgically managed dogs, local recurrence was not reported and metastatic disease was suspected in 2 dogs. Median survival time for surgically managed dogs was > 1,460 days and for conservatively managed dogs was 270 days. Median survival time was significantly greater for dogs treated with liver lobectomy, and conservatively managed dogs were 15.4 times as likely to die as a result of HCC. In the surgical group, factors that indicated a poor prognosis included high serum activities of alanine aminotransferase and aspartate aminotransferase and right-sided HCC.—J. M. Liptak et al (*J Am Vet Med Assoc* 2004;225:1225–1230).

Risk factors for recurrence of clinical signs associated with thoracolumbar intervertebral disk herniation in dogs: 229 cases (1994–2000)

The medical records of 229 dogs were reviewed to assess the recurrence rate of clinical signs associated with thoracolumbar intervertebral disk disease and identify risk factors for recurrence in dogs that underwent decompressive laminectomy without prophylactic treatment of other disk spaces. Overall recurrence rate of 19.2% was found. Dachshunds had a higher incidence of recurrence (25%), compared with dogs of other breeds combined (15%), although this result was not significant. Dogs with ≥ 2 or ≥ 3 opacified disks at the time of first surgery were significantly more likely to have recurrence, compared with dogs with ≤ 1 or ≤ 2 opacified disks, respectively. For each increase in opacified disk number, the risk of recurrence increased by 1.4 times.—P. D. Mayhew et al (*J Am Vet Med Assoc* 2004; 225:1231–1236).

Use of low molecular weight heparin in cats: 57 cases (1999–2003)

Records of 57 cats that received low molecular weight heparin (dalteparin) were reviewed. Forty-three cats with cardiomyopathy received dalteparin administered by their owners for a median follow-up time of 172 days, and 8 of these cats developed documented or suspected arterial thromboembolism. The median dose was 99 U/kg (45 U/lb) injected SC once or twice daily. Coagulation monitoring was not routinely performed, and bleeding complications were infrequent. Dalteparin was easily administered by owners and well tolerated by cats.—C. E. Smith et al (*J Am Vet Med Assoc* 2004;225:1237–1241).