

## Interpretive Summaries

### SMALL ANIMALS

#### Mortality rates and causes of death among emaciated cats

Body condition of 1,138 cats examined at 27 private veterinary practices in the northeastern United States was scored (emaciated, lean, optimally lean, optimal, heavy, obese) between 1991 and 1992, and follow-up information on whether cats had developed any illnesses, whether cats had died, and, if cats had died, cause of death was obtained between 1994 and 1996. Mortality risk for emaciated cats was then estimated, using cats in optimal condition as the reference group.

Compared with cats in optimal condition, emaciated cats were 4.4 times as likely to die during the follow-up period. However, after adjusting for age and excluding cats that died within 1 year after body condition was scored, emaciated cats were no longer significantly more likely to die. Risk factors for emaciated body condition included preexisting illness, age, and Siamese breed. Results suggest that emaciated cats have a significantly higher risk of death, compared with cats in optimal body condition. Serious illness and advancing age accounted for much, and perhaps all, of this increased risk of death.—V. P. Doria-Rose and J. M. Scarlett (*J Am Vet Med Assoc* 2000;216:347–351).

#### Ophthalmomyiasis interna anterior associated with *Cuterebra* spp in a cat

An 8-year-old domestic shorthair cat was examined for severe anterior uveitis of the right eye that was unresponsive to aggressive treatment with anti-inflammatory drugs and for a possible intraocular parasite or foreign body trapped within a large fibrin clot in the anterior chamber. Surgical exploration of a presumed entry site on the caudal aspect of the third eyelid led to keratotomy and removal of a larval parasite later identified as a first instar *Cuterebra* spp.

Aggressive treatment with anti-inflammatory drugs was continued after surgery, and intraocular pressure was monitored closely to ensure that the cat did not develop glaucoma. Two weeks after surgery, the cat had vision in the affected eye, with resolving uveitis and a normal fundus. Six weeks after surgery, the uveitis continued to resolve; however, the cat did not have vision in the affected eye, and examination of the fundus revealed retinal atrophy. In contrast to the condition in humans, a *Cuterebra* spp larval infection within the eye of cats may cause not only an intense, acute

inflammatory reaction, but also retinal degeneration and blindness despite prompt surgical removal.—B. P. Harris et al (*J Am Vet Med Assoc* 2000;216:352–355).

#### Retrobulbar pseudotumor of the orbit in a cat

Idiopathic nonspecific inflammatory disease of the orbit (orbital pseudotumor) was diagnosed detected in a cat. The cat had progressive lagophthalmia, keratitis, and decreased motion of the right eye. Four months later, the left eye was affected in a similar manner. Response to antibiotics and immunosuppressive agents was not detected. Computed tomography of the brain and orbits revealed bilateral thickening of the sclera and episcleral tissues. Bilateral exenteration of the eyes was required because of worsening clinical signs or corneal perforation. Histologic examination revealed proliferation of spindle cells and fibrovascular tissue within and adjacent to the sclera.—S. A. Miller et al (*J Am Vet Med Assoc* 2000;216:356–358).

#### Bacteria associated with pyothorax of dogs and cats: 98 cases (1989–1998)

Medical records of 51 dogs and 47 cats with pyothorax were reviewed to determine the organisms most commonly isolated. Median ages of dogs and cats were 4 years. Bacteria were isolated from pleural fluid samples from 47 of 51 (92%) dogs and 45 of 47 (96%) cats. Obligate anaerobic bacteria were isolated from 28 dogs and 40 cats. A mixture of obligate anaerobic and facultative bacteria was isolated from 17 dogs and 20 cats. Samples from cats most often yielded a member of the nonenteric group (most commonly members of the genus *Pasteurella*), whereas those from dogs more often yielded a member of the family Enterobacteriaceae (most commonly *Escherichia coli*). Results suggest that antimicrobial agents chosen for the initial treatment of dogs and cats with pyothorax should be active against a mixture of obligate anaerobic and facultative bacteria.—A. L. Walker et al (*J Am Med Vet Assoc* 2000;216:359–363).

#### Influence of open surgical correction on intermediate-term outcome in dogs with subvalvular aortic stenosis: 44 cases (1991–1998)

Open surgical correction of subvalvular aortic stenosis (SAS) in dogs can decrease the systolic pressure gradient; however, a benefit in preventing sudden

cardiac death has not been documented. Intermediate-term survival was compared for 22 dogs with SAS undergoing cardiopulmonary bypass and open surgical correction with that for 22 dogs with SAS that did not undergo surgical correction, using Kaplan-Meier nonparametric analysis and a Mantel-Cox log-rank test. Initial systolic pressure gradients were not significantly different in dogs undergoing surgery ( $128 \pm 55$  mm Hg), compared with values for those that did not undergo surgery ( $117 \pm 57$  mm Hg). Systolic pressure gradients were significantly decreased after surgery in dogs undergoing surgery ( $54 \pm 27$  mm Hg). Cumulative survival was not significantly different between dogs that underwent surgery and those that did not. Thus, despite reductions in the systolic pressure gradient, surgery was not associated with a palliative benefit on survival in dogs with SAS.—E. C. Orton et al (*J Am Vet Med Assoc* 2000;216:364–367).

### **Complications associated with the use of indwelling epidural catheters in dogs: 81 cases (1996–1999)**

Epidural catheters were aseptically placed in 81 dogs and used for perioperative administration of analgesics for a variety of surgical procedures. Catheters were maintained in situ from 1 to 7 days (mean, 2.3 days; median, 2.0 days). Sixty-four (79.2%) dogs did not develop complications; 17 (20.9%) dogs had minor complications. Thirteen (16%) dogs dislodged their catheters, 2 (2.4%) dogs contaminated the catheter or the catheter site, and 2 (2.4%) dogs had signs of inflammation at the percutaneous puncture site. Complications did not require treatment other than catheter removal. Catheter dislodgement developed most often in young dogs and dogs that had undergone femoral fracture repair. Results suggest that epidural catheterization and intermittent administration of analgesics provides safe and effective perioperative pain control.—D. B. Swalander et al (*J Am Vet Med Assoc* 2000;216:368–370).

### **Treatment and outcome of dogs with leptospirosis: 36 cases (1990–1998)**

Medical records of 36 dogs for which leptospirosis was diagnosed from 1990 to 1998 were reviewed. All dogs were azotemic. Moderately azotemic dogs were treated conservatively (ie, medical management;  $n = 22$ ), and severely azotemic dogs were treated with hemodialysis (14). Serum antibody titers were highest to *Leptospira pomona* in 16 (44%) dogs, *L bratislava* in 9 (25%) dogs, and *L hardjo* in 1 (3%) dog. Eight (22%) dogs had high titers to *L pomona* and *L bratislava*, 1 (3%) had high titers to *L grippityphosa* and *L canicola*, and 1 (3%) had high titers to *L grippityphosa*, *L pomona*, *L canicola*, and *L bratislava*. Twelve (86%) dogs treated with hemodialysis and 18 (82%) treated conservatively survived. Infection of dogs with atypical *Leptospira* serovars resulted in acute renal failure. Prognosis was good for mildly or moderately azotemic dogs, whereas hemodialysis appeared to improve prognosis for severely azotemic dogs.—C. A. Adin and L. D. Cowgill (*J Am Vet Med Assoc* 2000;216:371–375).

## **SWINE/CAMELIDS**

### **Productivity characteristics of high-performing commercial swine breeding farms**

Productivity records for 1997 for 685 commercial swine herds in the United States were reviewed to determine productivity characteristics of high-performing swine breeding herds and to determine associations among number of litters per mated female per year (LMFY), number of pigs weaned per sow (PWS), and lactation duration. Herds were ranked on the basis of number of pigs weaned per mated female per year, and herds in the upper 10th percentile of this ranking were designated as high-performing herds. Productivity measurements for these herds were compared with values for the remaining herds.

High-performing herds had shorter lactation durations and higher mean breeding female inventories than did the remaining herds. High-performing herds also had better reproductive efficiency and used farrowing facilities more efficiently than did the remaining herds. For the high-performing herds, lactation duration was significantly associated with PWS, but was not significantly associated with LMFY. In contrast, for the remaining herds, lactation duration was not significantly associated with PWS, but was significantly associated with LMFY. Results suggest that high-performing commercial swine farms could increase PWS by improving preweaning mortality rate and number of pigs born alive, but that LMFY was already maximal. For other herds, however, shortening lactation duration would likely decrease farrowing interval and improve efficiency of the reproductive cycle without reducing litter size.—Y. Koketsu (*J Am Vet Med Assoc* 2000;216:376–379).

### **Diagnosis and treatment of torsion of the spiral colon in an alpaca**

A 14-year-old 61.7-kg (136-lb) alpaca was examined for colic of 24 hours' duration. An exploratory celiotomy was performed because of lack of response to medical treatment and ultrasonography revealed an abnormally large amount of free fluid in the peritoneal cavity. Exploration of the abdomen revealed a 20-cm diameter mass, consisting of most of the ascending colon. The spiral colon was thick and edematous, and it was decided to resect the spiral colon. Following a few complications, the alpaca was discharged 17 days after surgery.

Colic in camelids is considered a severe problem because clinical signs are subtle and often not recognized until the condition is untreatable. Camelids are reported to be stoic animals, and may have few signs of pain despite severe abdominal disease. Alpacas with signs of abdominal pain should undergo early and complete physical, laboratory, and diagnostic imaging evaluations. Rapid identification of the need for surgery is vital for a successful outcome.—R. J. Bickers et al (*J Am Vet Med Assoc* 2000;216:380–382)