

Interpretive Summaries

SMALL ANIMALS/EXOTIC

Factors associated with aggression between pairs of domestic ferrets

Fifty-five ferrets were used in a study to identify factors (eg, familiarity, sex, neutering status, time of year) associated with aggression between domestic ferrets and to test a method for reducing aggression when introducing ferrets. To identify variables associated with aggression, pairs of ferrets were placed in an enclosed area and observed for fighting. Forty-nine of 82 pairs of strangers fought when introduced, but 31 cage mate pairs did not. Time of year had no apparent effect. Pairs consisting of 2 neutered females or 2 sexually intact males were significantly more likely to fight than were pairs consisting of a neutered female and a sexually intact male. Caging pairs next to each other for 2 weeks prior to introduction did not decrease the likelihood of fighting when ferrets were introduced.

Results suggest that familiarity, sex, and neutering status are important determinants of aggression between ferrets. However, neutered females and sexually intact males are not indiscriminately aggressive, as a neutered female can be paired with a sexually intact male without resulting in aggression. Caging ferrets next to each other for 2 weeks did not decrease aggression when the ferrets were introduced.—V. W. Staton and S. L. Crowell-Davis (*J Am Vet Med Assoc* 2003;222:1709–1712).

Pneumoperitoneum secondary to a perforated gastric ulcer in a cat

A 7-year-old domestic cat was examined because of a history of weight loss, intermittent diarrhea, and anorexia of 6 months' duration. Results of physical examination were normal except for marked abdominal distension. Results of a CBC and serum biochemistry profile were unremarkable. Severe pneumoperitoneum was noted radiographically, and abdominocentesis yielded 640 mL of air. Abdominal distension recurred 1 day after abdominocentesis. Exploratory laparotomy was performed 3 days after recurrence of abdominal distension and revealed a gastric perforation along the greater curvature of the stomach with omental and pancreatic adhesions at the site of perforation. Mild local peritoneal inflammation was also noted. A partial gastrectomy was performed to resect the lesion, and histologic examination confirmed a severe perforating ulcer. The gastric wall adjacent to the ulcer was histologically normal. Aerobic and anaerobic bacteriologic cultures of abdominal swab specimens were negative for bacterial growth.

The cat was discharged 4 days after surgery and clinically normal at suture removal.—J. D. Lykken et al (*J Am Vet Med Assoc* 2003;222:1713–1716).

Treatment with a combined cystopexy-colopexy for dysuria and rectal prolapse after bilateral perineal herniorrhaphy in a dog

A 9-year-old castrated male Yorkshire Terrier was evaluated for dysuria and rectal prolapse 2 weeks after bilateral perineal herniorrhaphy. Dysuria was secondary to caudal displacement of the bladder, rather than retroflexion of the bladder. Dysuria and rectal prolapse were associated with disruption of supporting ligaments of the urinary bladder and colon, which may have been caused by tenesmus. Combined cystopexy and colopexy were used successfully to treat the dysuria and rectal prolapse.—R. S. Gilley et al (*J Am Vet Med Assoc* 2003;222:1717–1721).

Cryptococcosis of the central nervous system in a dog

A 3-year-old female German Shepherd Dog was evaluated for progressive mental obtundation and vestibular signs. Central nervous system cryptococcosis was diagnosed on the basis of growth of *Cryptococcus neoformans* in fungal culture of CSF, as well as detection of the organism in CSF via microscopy. Cryptococcal capsular latex antigen agglutination titer was 1:262,144 in CSF and 1:1,048,576 in serum samples. Imaging with magnetic resonance augmented diagnosis. The dog improved after long-term treatment with fluconazole. Fluconazole is useful in the treatment of CNS cryptococcosis, because it attains high concentration in the CNS. Long-term therapy is often required for resolution of clinical signs, and affected animals may require long-term follow-up with periodic evaluation of CSF via fungal culture and latex agglutination tests. Monitoring serum latex agglutination test results may provide a safe, less invasive means of monitoring response to treatment.—T. E. O'Toole et al (*J Am Vet Med Assoc* 2003;222:1722–1725).

Complications with and owner assessment of the outcome of tibial plateau leveling osteotomy for treatment of cranial cruciate ligament rupture in dogs: 193 cases (1997–2001)

Medical records of 193 dogs that underwent unilateral or bilateral tibial plateau leveling osteotomy (TPLO) for treatment of cranial cruciate ligament rupture were

reviewed, and complications associated with the surgical procedure were recorded. A questionnaire was sent to owners of all dogs to assess their perceptions of outcome.

A total of 66 complications were identified. Complications were identified in 47 of the 193 dogs (24.4%) and in association with 52 of the 253 TPLOs (20.6%). Dogs that underwent bilateral TPLOs during a single anesthetic episode had a higher complication rate than did dogs that underwent unilateral TPLO and dogs that underwent bilateral TPLOs during separate anesthetic episodes. Body weight, surgery time, whether a meniscal release or meniscectomy was performed, and extent of cruciate ligament damage were not associated with whether complications occurred. One hundred forty-one of 151 (93%) owners who responded to the questionnaire were satisfied with the outcome of the surgery. Assessments of outcome were not significantly different between owners of dogs that had complications and owners of dogs that did not. Most complications responded to appropriate treatment, and the development of complications did not affect owner assessments of outcome. There was a higher incidence of complications when bilateral TPLOs were performed during a single anesthetic episode.—N. H. Priddy II et al (*J Am Vet Med Assoc* 2003;222:1726–1732).

Outcome of and complications associated with prophylactic percutaneous laser disk ablation in dogs with thoracolumbar disk disease: 277 cases (1992–2001)

Medical records of 277 dogs with a history of thoracolumbar disk disease in which the 7 intervertebral disks from T10-11 through L3-4 were ablated with a holmium-yttrium-aluminum-garnet laser inserted through percutaneously placed needles were reviewed. Complications and episodes of a recurrence of neurologic signs (eg, paresis or paralysis) were recorded; owners were contacted by telephone for follow-up information.

Nine of 262 (3.4%) dogs for which follow-up information was available had a recurrence of paresis or paralysis. Follow-up time ranged from 1 to 85 months (mean, 15 months); signs recurred between 3 and 52 months (mean, 15.1 months) after laser disk ablation. Acute complications occurred in 5 dogs and included mild pneumothorax in 1 dog, an abscess at a needle insertion site in 1 dog, and proprioceptive deficits in 3 dogs, 1 of which required hemilaminectomy within 1 week because of progression and severity of neurologic signs. One dog developed diskospondylitis. Results suggest that prophylactic percutaneous laser disk ablation is associated with few complications and may reduce the risk of recurrence of signs of intervertebral disk disease in dogs.—K. E. Bartels et al (*J Am Vet Med Assoc* 2003;222:1733–1739).

EQUINE

Azoospermia associated with bilateral segmental aplasia of the ductus deferens in a stallion

A 3-year-old Quarter Horse halter stallion was referred for routine semen evaluation. Physically, the

stallion's reproductive organs appeared normal. Repeated semen evaluations did not reveal any spermatozoa. Because high activities of alkaline phosphatase are detected in the epididymal fluid and indicative of complete ejaculation, alkaline phosphatase activities were analyzed in several samples, which yielded activities far less than reference values and suggested a blockage of the reproductive tract. Endoscopic evaluation of the urethra and the bulbourethral, prostate, and urethral gland ducts did not reveal abnormalities. The left ductus deferens was exposed surgically, and attempts to pass a catheter through it in a normograde direction met resistance after 20 cm. Laparoscopic abdominal surgery revealed the ductus deferens tapered to a thin structure just cranial to the entrance in the urogenital fold, cranial and lateral to the bladder. Both ductus deferentia were similarly affected. The symmetry and bilateral nature of the abnormalities were strong indications of a possible congenital defect.—A. Estrada et al (*J Am Vet Med Assoc* 2003;222:1740–1742).

Obstruction of the cecocolic orifice by ileocecolic intussusception following jejunocostomy in a horse

A 4-year-old Thoroughbred stallion was referred for signs of mild to moderate colic, anorexia, and decreased water intake of 3 weeks' duration. Ultrasonographic examination revealed an intussusception, the most common of which would be a cecal inversion or ileocecal intussusception. Surgical exploration identified an ileocecolic intussusception with extension of the intussusceptum into the right ventral colon; however, the cause of the intussusception could not be identified. The intussusception could not be surgically corrected, and the horse was euthanized. A side-to-side jejunocostomy that had been performed previously was identified at necropsy. The ileal stump had intussuscepted into the right ventral colon and become hypertrophied, causing partial obstruction of the cecocolic orifice and clinical signs of colic. In horses requiring an ileocecal or jejunocostal anastomosis, the ileal stump may be left to slough within the cecum as part of the treatment for an irreducible ileocecal intussusception or intentionally inverted into the cecum when the ileal stump is necrotic and cannot be exteriorized and resected. Efforts should be made to minimize the size of the ileal stump to reduce the likelihood of intussusception.—R. S. Erkert et al (*J Am Vet Med Assoc* 2003;222:1743–1745).

RUMINANTS

Elimination kinetics of chlorhexidine in milk following intramammary infusion to stop lactation in mastitic mammary gland quarters of cows

Extralabel use of chlorhexidine suspension as a treatment to stop lactation in mastitic mammary gland quarters is common. Disposition of chlorhexidine in milk following intramammary infusion has not been

studied. The purpose of the study reported here was to determine the elimination kinetics of chlorhexidine in milk when used as an intramammary infusion. All cows were treated with chlorhexidine suspension by infusion into a mastitic mammary gland quarter after 2 milkings 24 hours apart. Chlorhexidine residues were detected by high-performance liquid chromatography in milk from treated mammary gland quarters of 2 cows throughout the 42-day sampling period. Chlorhexidine residues were consistently less than the limit of quantitation in milk

from untreated mammary gland quarters. Mean elimination half-life for chlorhexidine in milk was estimated to be 11.5 days. On the basis of this long elimination half-life, the lack of human dietary exposure data for tolerance of chlorhexidine in food products, and the FDA published zero tolerance for chlorhexidine in uncooked edible calf tissues, we do not recommend extralabel use of chlorhexidine suspension as a treatment to stop lactation in mastitic mammary gland quarters of cows.—J. R. Middleton et al (*J Am Vet Med Assoc* 2003;222:1746–1749).