

Interpretive Summaries

SMALL ANIMALS

Evaluation of a behavioral assessment questionnaire for use in the characterization of behavioral problems of dogs relinquished to animal shelters

A study was undertaken to evaluate a behavioral intake questionnaire in animal shelters for the presence of biased results and assess its use in the characterization of behavioral problems of dogs relinquished to shelters. Fifty-four owners who were relinquishing their dogs and agreed to complete the behavioral questionnaire were alternately assigned to 1 of 2 groups; participants were aware that information provided would be confidential or nonconfidential (ie, likely used for adoption purposes). Data from confidential and nonconfidential information groups were compared, and the former were compared with data (collected by use of the questionnaire) regarding a population of 784 client-owned dogs. Results indicated that owners who completed confidential questionnaires reported that their dog displayed owner-directed aggression and stranger-directed fear significantly more often than owners who completed nonconfidential questionnaires. Comparison of data from the confidential information group with data from a population of client-owned dogs revealed that relinquished dogs were significantly more likely to have serious behavioral problems than client-owned dogs. In a shelter setting, use of a behavioral questionnaire may not always provide accurate information; nevertheless, results suggest that if questionnaire-derived data are interpreted cautiously, shelter personnel may be provided with valuable information to aid in behavioral assessment of and outcome decisions regarding dogs relinquished to shelters.—S. A. Segurson et al (*J Am Vet Med Assoc* 2005;227:1755–1761).

Serum 17- α -hydroxyprogesterone and corticosterone concentrations in dogs with nonadrenal neoplasia and dogs with suspected hyperadrenocorticism

Adrenocorticotrophic hormone stimulation tests were performed in 16 clinically normal dogs, 35 dogs with nonadrenal neoplastic disease, and 127 dogs with suspected hyperadrenocorticism. Serum cortisol, 17- α -hydroxyprogesterone (17OHP), and corticosterone concentrations were measured in blood samples taken after administration of ACTH. Of the dogs with neoplasia, 31% and 23% had high post-ACTH serum 17OHP and corticosterone concentrations, respective-

ly. Of the 127 dogs suspected to have hyperadrenocorticism, 59 (46.5%) had high serum cortisol concentrations after ACTH administration. Of those dogs, 71% and 60% had high serum 17OHP and corticosterone concentrations, respectively. Of dogs with serum cortisol concentration within reference range after administration of ACTH, 13% and 10% had high serum 17OHP and corticosterone concentrations, respectively. Post-ACTH serum 17OHP or corticosterone concentrations may be increased in dogs with nonadrenal neoplastic disease and no clinical signs of hyperadrenocorticism. Serum concentrations of 17OHP or corticosterone changed proportionately with cortisol concentration.—E. N. Behrend et al (*J Am Vet Med Assoc* 2005; 227:1762–1767).

Comparison between meloxicam and transdermally administered fentanyl for treatment of postoperative pain in dogs undergoing osteotomy of the tibia and fibula and placement of a uniplanar external distraction device

The analgesic effects of meloxicam and transdermally administered fentanyl were compared in 16 dogs undergoing osteotomy of the tibia and fibula and placement of a uniplanar external distraction device. Postoperative pain and lameness were assessed 24, 48, and 72 hours after administration of the first of 3 doses of meloxicam (0.2 mg/kg [0.09 mg/lb], IV, given preoperatively, followed by 0.1 mg/kg [0.045 mg/lb], IV, after 24 hours, and 0.1 mg/kg, PO, after 48 hours) or preoperative placement of a transdermal fentanyl patch (50 μ g/h) that was left in place for 72 hours. No significant differences in total pain scores were detected between groups. Mean lameness scores assessed at 24 and 72 hours were lower in dogs in the meloxicam group than dogs in the fentanyl group. Results suggested that perioperative administration of meloxicam or preoperative placement of a transdermal fentanyl patch was effective for control of postoperative pain in dogs undergoing orthopedic surgery. However, treatment with meloxicam resulted in rapid functional recovery of the limb.—M. P. Lafuente et al (*J Am Vet Med Assoc* 2005;227:1768–1774).

Analysis of the impact of trap-neuter-return programs on populations of feral cats

Modeling of feral cat population dynamics in California and Florida was performed to evaluate models for statistical evaluation of trap-neuter-return pro-

grams. Although the models did not reveal evidence of reduced population growth rates, suggestions for focusing and improving programs were made.—P. Foley et al (*J Am Vet Med Assoc* 2005;227:1775–1781).

Therapeutic percutaneous ultrasound-guided cholecystocentesis in three dogs with extrahepatic biliary obstruction and pancreatitis

Three dogs were examined because of acute pancreatitis. In all 3, distension of the gallbladder was seen ultrasonographically, and extrahepatic biliary tract obstruction (EHBO) was diagnosed on the basis of ultrasonographic findings and serum biochemical abnormalities (ie, high serum bilirubin and cholesterol concentrations and increased hepatic enzyme activities). In all 3 dogs, percutaneous ultrasound-guided cholecystocentesis (PUCC) was used to decompress the gallbladder, with cholecystocentesis performed multiple times in 1 dog. Serum bilirubin concentration was substantially decreased following the procedure in all 3 dogs. Two of the 3 dogs did not require surgery to resolve the obstruction. In the third dog, an exploratory laparotomy was performed because of concerns about development of abdominal effusion following the procedure. Bile staining of the mesenteric fat was seen during the laparotomy, but no defect in the gallbladder wall could be identified. In most dogs with EHBO secondary to pancreatitis, the obstruction resolves spontaneously as the acute pancreatitis improves so that surgery is not required. In those few dogs in which EHBO does not resolve or in which EHBO results in complications, therapeutic PUCC may be useful in relieving gallbladder distension.—B. A. Herman et al (*J Am Vet Med Assoc* 2005;227:1782–1786).

Characterization of the use of antiemetic agents in dogs with parvoviral enteritis treated at a veterinary teaching hospital: 77 cases (1997–2000)

A retrospective review of medical records of dogs with canine parvovirus (CPV)-associated enteritis was performed to characterize the use of antiemetic agents during hospitalization. Of the 560 medical records reviewed, all but 77 cases were excluded because the medical records were incomplete, the dog had been vaccinated against CPV infection within the preceding 2 weeks, hospitalization was < 24 hours' duration, or the dog had been removed from the hospital against medical advice. Signalment, duration of hospitalization, and daily treatments including antiemetic administration and clinical variables that were considered diagnostic of systemic inflammatory response syndrome (SIRS) were recorded. Seventeen of the 77 dogs also had emetic events recorded hourly.

The 55 dogs that received antiemetics were hospitalized for a significantly longer period than the 22 dogs that did not receive antiemetics. Of the 77 dogs, 71 survived to discharge from hospital. All 6 nonsurvivors

received antiemetics. The frequency of signs of SIRS was significantly higher among nonsurvivors than survivors. In the 17 dogs for which emetic events were recorded hourly, antiemetics did not eliminate emesis. The longer duration of hospitalization for dogs that received antiemetics likely reflected more severe disease, compared with dogs that did not receive antiemetics; however, adverse events associated with administration of antiemetics such as hypotension, immune modulation, and signs of depression may have contributed to prolonged hospitalization.—N. L. Mantione and C. M. Otto (*J Am Vet Med Assoc* 2005;227:1787–1793).

Evaluation of survival rate and prognostic indicators for surgical treatment of left-to-right patent ductus arteriosus in dogs: 52 cases (1995–2003)

Medical records were reviewed for 52 dogs that underwent surgery for treatment of patent ductus arteriosus. Twenty-two (42.3%) dogs had mitral regurgitation. Twenty-four (46.2%) dogs had clinical signs related to cardiac insufficiency at the time of surgery. Radiographic abnormalities were detected in 40 of 48 (83.3%) dogs; of those 48, left atrial dilatation was observed in 27 (56.3%) dogs. Echocardiography was performed in 32 dogs; left atrial dilatation was diagnosed in 23 dogs, and left ventricular dilatation was diagnosed in 25 dogs. The 1- and 2-year survival rates were 92% and 87%, respectively. Age at surgery, weight, lethargy, preoperative treatment with angiotensin-converting enzyme inhibitors, and right atrial dilatation on radiographs at the time of surgery were negatively associated with the probability of survival. Diagnosis of mitral valve regurgitation before surgery was not associated with survival rate.—S. Bureau et al (*J Am Vet Med Assoc* 2005;227:1794–1799).

EQUINE

Severe acute rhabdomyolysis associated with *Streptococcus equi* infection in four horses

Four Quarter Horses (9 months to 7 years of age) with submandibular lymphadenopathy and firm muscles (palpation of which elicited signs of pain) were evaluated; in general, the horses had a stiff gait, and 3 horses became recumbent. *Streptococcus equi* was cultured from aspirates of lymph nodes or samples of purulent material collected from the auditory tube diverticula. Once the horses were recumbent, their condition deteriorated rapidly despite aggressive antimicrobial and anti-inflammatory treatment, necessitating euthanasia within 24 to 48 hours. One horse did not become recumbent and recovered completely. Among the 4 horses, common clinicopathologic findings included neutrophilia, hyperfibrinogenemia, and high serum activities of creatine kinase and aspartate aminotransferase. Necropsies of the 3 euthanatized horses revealed large, pale areas most prominent in the semimembranosus, semitendinosus, sublumbar, and gluteal muscles that were characterized histologically by severe acute myonecrosis and macro-

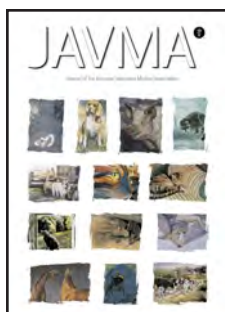
phage infiltration of necrotic myofibers. *Streptococcus equi* was identified in sections of affected muscle by use of immunofluorescent stains for Lancefield group C carbohydrate and *S equi* M protein. In the 4 horses of this report, acute severe rhabdomyolysis without clinical evidence of muscle atrophy or infarction was associated with *S equi* infection; rhabdomyolysis was attributed to either an inflammatory cascade resembling streptococcal toxic shock or potentially direct toxic effects of *S equi* within muscle tissue.—B. T. Sponseller et al (*J Am Vet Med Assoc* 2005;227:1800–1807).

RUMINANTS

Evaluation of farm management practices as risk factors for clinical listeriosis and fecal shedding of *Listeria monocytogenes* in ruminants

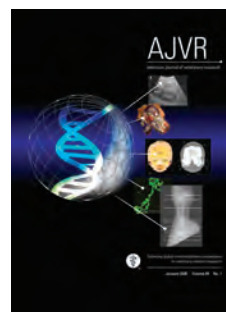
A case-control study of ruminant listeriosis was

conducted. Data indicated that the prevalence of *L monocytogenes* on ruminant farms was seasonal, especially with respect to fecal shedding in healthy ruminants and contamination of farm soil. General farm management practices, animal health and hygiene, and feeding practices were associated with the prevalence of ruminant listeriosis and fecal shedding of *L monocytogenes* in healthy ruminants, and the epidemiologic features of ruminant listeriosis and transmission of *L monocytogenes* appeared to differ on cattle versus small-ruminant farms. These findings may aid our understanding of the transmission of *L monocytogenes* through the human food chain and the epidemiologic features of ruminant listeriosis. Results may be useful in the development of control measures to reduce listeriosis among production ruminants and introduction of the organism into the human food chain.—K. K. Nightingale et al (*J Am Vet Med Assoc* 2005;227:1808–1814).



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