European Veterinary Conference Voorjaarsdagen ■ 9–11 April 2015 ■ Amsterdam

The annual European Veterinary Conference Voorjaarsdagen (translated, means *spring days*) is held in Amsterdam, The Netherlands, where more than 1000 veterinarians and hundreds of veterinary technicians gather for 3 days of practical lectures and sessions.

Small Intestinal Dysbiosis

Small intestinal dysbiosis refers to alterations in small intestinal microbiota numbers and/or composition. Antibiotic-responsive diarrhea, tylosin-responsive diarrhea, intestinal dysbiosis, and small intestinal bacterial overgrowth are terms describing similar conditions; it is unknown, however, whether they describe the same clinical entity, as the underlying cause of these conditions can be difficult to elucidate. Existing protective mechanisms that help prevent dysbiosis include gastric acid, intestinal motility (especially the propulsive small intestinal movements), and antibacterial activity of pancreatic juice. Disease affecting any of these mechanisms could lead to small intestinal dysbiosis. The diarrhea associated with small intestinal dysbiosis is chronic and may be intermittent. Weight loss is variably present. Duodenal juice cultures are difficult to perform and/or interpret. The most practical, albeit insensitive, diagnostic test is the combination of serum folate and cobalamin concentrations. Serum Trypsin-like immunoreactivity should also be measured, as enzymatic treatment of exocrine pancreatic insufficiency patients will generally negate the need for further therapies. Treatments for patients without an identifiable primary cause include antibiotics (eg, tylosin 25 mg/kg q12h for 6 weeks), prebiotics (eg, fructooligosaccharides), probiotics, and synbiotics (ie, a combination of pre- and probiotics). Likely the most practical synbiotic approach is to use a prebiotic-fortified food with additional probiotic supplementation. Cobalamin supplementation may be beneficial for some. Some patients require prolonged or life-long antimicrobial therapy.—*Steiner J*

Respiratory Disease in Pet Rodents

Respiratory disease is commonly seen in rodents, which are increasingly popular as pets. Poor husbandry and diet are often implicated as underlying causes of respiratory illness in pet rodents. A large, properly ventilated cage is essential to help prevent ammonia buildup, which can act as a potent respiratory irritant, potentiating opportunistic respiratory colonization. In addition, it is recommended to avoid overcrowding and not to house different species together, as some animals may be carriers of organisms that are pathogenic to a different species. Weight loss, anorexia, poor coat condition, red ocular or nasal staining, sneezing, dyspnea, wheezing, and nasal discharge can all be signs of respiratory disease in rodents. Care must be taken to not stress a dyspneic rodent during physical examination.

Diagnostics to consider include thoracic radiographs and culture and susceptibility testing of nasal swabs or tracheal/bronchial lavage fluid. Numerous viruses and bacteria—including *Mycoplasma pulmonis,* Sendai virus, *Bordetella bronchiseptica*, *Streptococcus pneumoniae,* and rat coronaviruses—cause respiratory illness in rodents. Less

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common causes of respiratory disease, such as pulmonary/alveolar histiocytosis, foreign body pneumonitis, and metastatic disease should be considered as well.

Treatment is aimed at controlling the organism and improving quality of life. Therapies may include oxygen, systemic and nebulized antimicrobials, and nutritional support. Corticosteroids are considered in end-stage disease. Owners must understand that relapses after initial clinical response are common. —*Mancinelli E*

Gastritis and Gastric Ulcers

Gastric disease in dogs and cats can be secondary to clinical conditions including gastric ulceration, gastritis, neoplasia, or inflammatory infiltration of the gastrointestinal tract. Gastritis, or gastric mucosal inflammation, may be acute, chronic, idiopathic, or secondary to underlying causes. *Physaloptera rara*, the stomach worm, although rare and difficult to diagnose, should be considered in patients with chronic vomiting. Combination antibiotic usage along with an antacid is often successful in treating *Helicobacter* spp-like organisms when identified in patients with chronic gastritis unresponsive to traditional therapy. Gastric ulcerations or erosions are areas of damaged gastric mucosa that can cause more severe issues including significant blood loss and life-threatening gastrointestinal perforations. Therapy is aimed at treating or removing the underlying cause, most commonly ulcerogenic drugs (eg, NSAIDs) or corticosteroids, which diminish the natural protective mechanisms of the stomach lining. Medications used to treat gastric ulcers include agents such as calcium carbonate or aluminum hydroxide, which buffer gastric acid in the gastric lumen. Additionally, antacids such as H_2-receptor antagonists (eg, famotidine) and proton pump inhibitors (eg, omeprazole) may be effective at decreasing gastric acid secretion. Sucralfate is a gastromucosal protectant that relies on gastric acid exposure to break down into its active ingredient; this adheres to damaged gastric tissue. Misoprostol, a synthetic prostaglandin, is highly effective at preventing ulceration in patients receiving NSAIDs or glucocorticoids, but utility for treatment of existing lesions is unproven.—*Steiner J*

Feline Hereditary Diseases—Peculiarities and Recent Progress

More than 230 hereditary disorders and genetic predispositions, similar to those in dogs, are known; molecular genetic tests are available for more than 2 dozen. Some of these

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disorders represent possible models for studying similar diseases in humans. Feline breed variability is more restricted than canine breed variability, with several simple attributes (dominant or recessive) distinguishing the breeds. Single nucleotide polymorphism panels can define breeds and disease-causing mutations; most are autosomal recessive traits, whereas others are X-chromosomal recessive or autosomal dominant with incomplete penetrance. These disorders span hematologic problems, muscular diseases, storage diseases, heart defects, metabolic derangements, renal disorders, and ocular diseases; DNA testing is available for many of these. Though hereditary eye disorders are uncommon in cats, 2 retinopathies are seen in Abyssinians. Hereditary bleeding disorders are also rare, but coagulation factor XII deficiency is seen in many DSH cats. In some breeds, hip dysplasia and patellar luxation are more common than previously thought. Cancer is less attributable to genetics in cats than in dogs, except in the case of lymphoma. Some cats also appear to have a genetic predisposition for certain viral infections. Cats are more amenable to transplantation, and immune-mediated diseases are less common. The feline genome sequence has been recently completed, which will greatly enhance the understanding of feline hereditary disease.—*Giger U*

Esophageal Problems in Dogs and Cats

The normal esophagus is lined by squamous epithelium and bicarbonate-rich mucus. The musculature is composed entirely of striated muscle in dogs, whereas in cats the bottom 30%-50% is smooth muscle. Regurgitation may be the only clinical sign of esophageal pathology and must be distinguished from vomiting and dysphagia. Clinical examination and observation of the patient eating food from the floor vs an elevated point may help differentiate between the 2. Pharyngeal or throat paralysis, enlarged lymph nodes, non-compressible thorax (in small dogs and cats) or neurologic signs commonly accompany an esophageal problem. Myasthenia gravis or megaesophagus secondary to endocrinopathies should be ruled out. Radiology is an excellent diagnostic tool, with fluoroscopy, radiocontrast swallows (iodine preferred over barium), and endoscopy providing ancillary help. Foreign bodies are a common esophageal problem. Esophagitis may occur secondary to a host of insults to the esophageal lining. Fasting, fluid therapy, H_2 blockers, and sucralfate treat the mucosal damage caused by such events. Prokinetics and a gastric tube may also be necessary. Esophageal strictures have similar causes and treatment includes balloon dilatation or bougienage. Judicious use of corticosteroids may be used to decrease inflammation and

resultant fibrosis. Esophageal diverticula and esophageal neoplasias are rare in dogs and cats. Vascular ring anomalies, usually noted when the young animal begins eating solid food, require surgery to correct, as does a hiatal hernia. Causes of cricopharyngeal achalasia are unclear, and fluoroscopy is necessary for diagnosis. Megaesophagus can be congenital or acquired, and diagnosing the underlying cause is critical to successful treatment.—*Burgener IA*

Sedation as an Alternative to General Anesthesia in Pet Birds

Sedation should be considered in place of general anesthesia in birds that are stressed, ill, debilitated, or in respiratory distress. In cases in which general anesthesia is unnecessary, sedation can help with restraint and stress-reduction. Midazolam, a benzodiazepine sedative, can reduce anxiety but has no analgesic effect. Butorphanol, a widely used opioid analgesic, has proven safe in some healthy psittacine species. Suggested doses are 1-3 mg/kg of butorphanol with 0.25-1.0 mg/kg of midazolam by IM injection. Onset is rapid (within 2-3 minutes); length of sedation ranges 20 minutes to several hours. Response is variable, from mild to profound (often in debilitated patients). Sedation can be useful for cases in which handling produces stress, vocalizations, and increased heart and respiratory rates. Birds in respiratory distress often show improvement in rate and effort with sedation, likely because of decreased anxiety. Although general anesthesia is necessary to completely eradicate patient movement, good quality radiographs can be obtained with sedation in many patients. Lidocaine and bupivacaine are local analgesic agents that can be used at a dose of 1-2 mg/kg each for procedures causing mild-to-moderate discomfort. Sedation plus local analgesia can be used to obtain vascular access or to place intraosseous catheters, as well as for cleansing and wound debridement, abscess lancing, or digit amputation. Although further studies to help determine therapeutic dose ranges as well as safety and efficacy data are needed, sedation use in psittacines has not been associated with increased patient mortality.—*Lennox AM* ■ cb