Esophagitis in cats and dogs is a consequence of increased exposure of the esophageal mucosa to gastroduodenal reflux. Causes can include anesthesia-related reflux, frequent vomiting, or lodged foreign bodies. An exception is eosinophilic esophagitis, an emerging primary inflammatory disease of the esophagus with a presumed allergic etiology. Reflux esophagitis owing to lower esophageal sphincter incompetence is often suspected; a tentative diagnosis can be made by endoscopic assessment, wireless esophageal pH-monitoring, or histologic examination. Because it can be difficult to distinguish diet-responsive upper gastrointestinal disease from esophagitis, response to treatment with gastric acid suppressants is needed to confirm the tentative diagnosis.

Aerodigestive disorders (AeroDs) in people encompass a wide range of clinical syndromes, reflecting the complex relationship between the respiratory and digestive tracts. In veterinary medicine, aspiration is used interchangeably with aspiration pneumonia. Although aspiration pneumonia is a common disorder in dogs, it does not reflect the breadth of AeroDs. Unfortunately, AeroDs rarely are investigated in veterinary medicine because of lack of clinical recognition, limitations in available diagnostics, and the fact that AeroDs may be caused by occult digestive disease. Recognizing patients with AerodD represents an area of significant clinical importance that may provide additional areas of clinical intervention.

A range of gastroprotective drugs are available for the treatment of esophagitis and gastroduodenal mucosal injury including acid suppressants (ie, histamine-2 receptor antagonists, proton pump inhibitors), coating agents, prostaglandin analogs, and antacids. Of these, the proton pump inhibitors are the most effective drugs for the medical treatment of upper gastrointestinal injury. However, proton pump inhibitors are not effective for all causes of upper gastrointestinal injury. The choice of gastroprotective
drug should be guided by the cause and location of gastrointestinal injury and the potential for adverse effects.

Gastric Motility Disorders in Dogs and Cats

Roman Husnik and Frédéric Gaschen

Gastric motility disorders present both diagnostic and therapeutic challenges and likely are under-recognized in small animal practice. This review includes a comparative overview of etiopathogenesis and clinical presentation of gastric motility disorders, suggests a practical approach to the diagnosis of these conditions, and provides an update on methods to evaluate gastric motor function. Furthermore, management of gastric dysmotility is discussed, including a review of the documented effect of gastric prokinetics.

Digestive Diseases in Brachycephalic Dogs

Valérie Freiche and Alexander J. German

In addition to presenting with respiratory signs, many dogs with brachycephalic airway obstructive syndrome show digestive tract signs related to the same conformational abnormalities. A detailed diagnostic investigation is usually required, including clinicopathologic analyses, thoracic radiographs, fluoroscopic studies, abdominal ultrasound examinations and both upper airway and gastrointestinal tract endoscopy. In most cases, medical therapies are successful in managing clinical signs, but surgery can occasionally be required to resolve hiatal hernia or pyloric stenosis. In determining prognosis, the features of each individual case should be considered, with the overall prognosis depending on the severity and extent of all the identified lesions.

Acute Hemorrhagic Diarrhea Syndrome in Dogs

Stefan Unterer and Kathrin Busch

Acute hemorrhagic diarrhea syndrome is defined as sudden onset of severe bloody diarrhea frequently associated with vomiting, which results in severe, sometimes life-threatening dehydration. Although there is strong evidence that clostridial overgrowth and toxin release is responsible for the pathogenesis of the disease, the diagnosis is still based on exclusion of other causes for acute hemorrhagic diarrhea. With early and appropriate treatment, mainly based on fluid therapy, the prognosis is good and complications such as sepsis or severe hypoalbuminemia rarely occur.

Differentiating Inflammatory Bowel Disease from Alimentary Lymphoma in Cats: Does It Matter?

Sina Marsilio

Differentiation of feline inflammatory bowel disease and intestinal small cell lymphoma can be challenging, and some clinicians argue that it is unnecessary because prognosis and treatment are similar. Although the body of research on this topic has increased over time, we still know little about etiopathogenesis, progression, alternative treatment modalities and prognosis of the different forms of FCE. While differentiating IBD from SCL
might not alter a single patients’ disease course, further research efforts are required to alter the disease course for our feline patient population as a whole.

**Canine Protein Losing Enteropathies and Systemic Complications**

Karin Allenspach and Chelsea Iennarella-Servantez

Canine protein-losing enteropathies occur commonly in small animal practice, and their management is often challenging with a long-term survival rate of only about 50%. Recent studies have investigated prognostic factors that may determine outcome in individual cases. In particular, systemic complications such as hypercoagulability, vitamin D3 deficiency, and tryptophan deficiency may play an important role and should be investigated in severely affected cases in order to maximize outcome.

**Dietary and Nutritional Approaches to the Management of Chronic Enteropathy in Dogs and Cats**

Aarti Kathrani

Nutrition can influence those functions of the gastrointestinal tract that can be adversely affected in chronic enteropathy, such as microbiota, mucosal immune system, intestinal permeability, and motility. Diet serves as a possible risk factor in disease pathogenesis and as a target for treatment in chronic enteropathy. Malnutrition is prevalent in people with inflammatory bowel disease and negatively affects outcome. Approximately two-thirds of dogs with protein-losing enteropathy due to chronic enteropathy or lymphangiectasia are underweight. Commercial diets and home-prepared diets have been used successfully in the management of chronic enteropathy. Fat restriction is the main dietary strategy for intestinal lymphangiectasia.

**From Bench Top to Clinics: How New Tests Can Be Helpful in Diagnosis and Management of Dogs with Chronic Enteropathies**

Juan Hernandez and Julien Rodolphe Samuel Dandrieux

In this article, we review different tests that have been researched in dogs with chronic enteropathy. The usefulness of these tests either to assess etiology, to differentiate between treatment response, or to monitor treatment response is discussed. The tests are divided in those that are commercially available and those that hold promises for further development.

**Impact of Changes in Gastrointestinal Microbiota in Canine and Feline Digestive Diseases**

Anna-Lena Ziese and Jan S. Suchodolski

The intestinal microbiome is an important immune and metabolic organ in health and disease. Recent molecular and metabolomic approaches have provided a better characterization of different types of dysbiosis, including mucosa-adherent bacteria and functional changes in the microbiome. This article summarizes recent advances in assessment of dysbiosis, the importance of the bile acid–converting Clostridium hiranonis as an
important beneficial bacterium in the canine gut, and different therapeutic approaches to dysbiosis.

Value of Probiotics in Canine and Feline Gastroenterology
Silke Salavati Schmitz

Probiotics/or synbiotics products for small animals do not fulfill the criteria required to qualify as a probiotic. Studies explaining modes of action are lacking. Outcome measures are inconsistent, with some trials assessing only nonspecific routine diagnostic parameters or fecal scores. Preliminary evidence shows that specific preparations are beneficial in parvovirus infections and acute hemorrhagic diarrhea syndrome in dogs and in Tritrichomonas fetus infection in cats. In dogs, inflammatory bowel disease specific probiotics can decrease clinical severity. More studies focusing on functional outcomes in dogs and cats with well-defined diseases to allow evidence-based clinical use of probiotics and synbiotics are needed.

Fecal Microbiota Transplantation in Dogs
Jennifer Chaitman and Frédéric Gaschen

In people, fecal microbiota transplantation is recognized as the best treatment modality for recurrent Clostridioides difficile infection, and its value is currently investigated in the treatment of other diseases associated with an abnormal gut microbiome. In dogs, intestinal dysbiosis has been documented in many acute and chronic digestive diseases as well as in diseases of other organ systems. There are only few published studies evaluating the benefits of fecal microbiota transplantation (FMT) in canine gastrointestinal disorders. They provide evidence that FMT may be beneficial in the treatment of acute intestinal diseases and hope that the technique might also be useful for the management of chronic enteropathies.