

INFLAMMATION OF THE ESOPHAGUS (ESOPHAGITIS)

BASICS

OVERVIEW

- Inflammation of the esophagus—typically involves the tubular area of the esophagus itself (known as the “esophageal body”) and the muscular area between the stomach and esophagus (known as the “gastroesophageal sphincter”); occasionally the muscular area between the throat or pharynx and the esophagus (known as the “cricopharyngeal sphincter”) may be involved
- Varies from mild inflammation of the superficial lining (known as “mucosa”) of the esophagus to severe ulceration, involving underlying layers including the muscle (known as “submucosa” [that is, “layer under the mucosa”] and “muscularis” [that is, “muscle”])

SIGNALMENT/DESCRIPTION of ANIMAL

Species

- Dogs and cats

Mean Age and Range

- Any age; young animals with congenital (present at birth) esophageal hiatal hernia (in which a portion of the stomach enters the chest through the area where the esophagus normally passes through the diaphragm) may be at higher risk for inflammation (known as “reflux esophagitis”) secondary to backward or reverse flow of stomach contents into the esophagus
- Older animals at great risk of developing backward or reverse flow of stomach contents into the esophagus (known as “gastroesophageal reflux”) during anesthesia and then possibly inflammation of the esophagus (esophagitis)

SIGNS/OBSERVED CHANGES in the ANIMAL

- Regurgitation (return of food or other contents from the esophagus or stomach back up through the mouth)
- Drooling or excessive salivation
- Howling, crying, or yelping during swallowing when the animal has active inflammation of the esophagus (known as “esophagitis”)
- Extension of the head and neck during swallowing
- Difficulty swallowing (known as “dysphagia”)
- Decreased appetite
- Weight loss
- Coughing in animals that have aspiration pneumonia
- General weakness (debilitation) with severe inflammation of the esophagus
- Inflammation and/or ulceration of the mouth and/or throat, if caustic or irritating substances have been ingested
- Fever and excessive salivation in some patients with severe ulcerative inflammation of the esophagus
- Pain on feeling or palpating the neck and esophagus
- Weight loss to severe weight loss with muscle wasting (known as “cachexia”) in patients with prolonged disease
- Abnormal lung or breathing sounds (such as wheezes and coughing)—may be detected in animals with aspiration pneumonia

CAUSES

- Backward or reverse flow of stomach contents and/or intestinal fluids into the esophagus (known as “gastroesophageal reflux”)
- Anesthesia, resulting in gastroesophageal reflux
- Ingestion of chemical irritants
- Infectious agents—calicivirus; *Pythium*, a water mold that causes pythiosis; *Candida*, a yeast that causes candidiasis or “yeast infection”
- Esophageal and/or chest surgery
- Use of feeding tube, which may irritate lining of esophagus
- Chronic vomiting
- Pills or capsules remaining in the esophagus (that is, the pill or capsule does not move through the esophagus or moves through very slowly)
- Foreign body in the esophagus

RISK FACTORS

- Hiatal hernia (in which a portion of the stomach enters the chest through the area where the esophagus normally passes through the diaphragm)—increases risk for backward or reverse flow of stomach contents into the esophagus (gastroesophageal reflux)
- Anesthesia—use of certain drugs (such as diazepam, atropine, pentobarbital, and phenothiazine-derivative tranquilizers) prior to anesthesia decreases the pressure of the muscle between the stomach and esophagus (known as the “gastroesophageal sphincter”) and can result in backward or reverse flow of stomach contents into the esophagus (gastroesophageal reflux)

- Fasting for prolonged periods or not being fasted adequately puts patients at greater risk for backward or reverse flow of stomach contents into the esophagus (gastroesophageal reflux) with anesthesia and possible inflammation of the esophagus (esophagitis)
- Inflammation of the esophagus caused by *Pythium*—usually regionally distributed in states that border the Gulf of Mexico

TREATMENT

HEALTH CARE

- Mildly affected animals can be managed as outpatients; those with more severe inflammation of the esophagus (with signs such as total lack of appetite [anorexia], dehydration, and aspiration pneumonia) require hospitalization
- Intravenous fluids to maintain hydration, as needed
- Medications—give by injection during hospitalization
- Oxygen therapy—may be necessary in patients with severe aspiration pneumonia

DIET

- Severe inflammation of the esophagus—withhold food and water for 3 to 5 days; maintain with tube feedings
- When feeding by mouth is resumed, feed small amounts in multiple feedings
- Highly digestible diet of liquid or soft consistency, with low-to-moderate fat (because high dietary fat delays emptying of the stomach) and low-fiber content

SURGERY

- Feeding tube placement using an endoscope (a lighted medical instrument that is passed into the esophagus and stomach through the mouth) or surgery is indicated in severe cases

MEDICATIONS

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive.

- Usually given by injection (except for sucralfate) in severe cases
- When administering medications by mouth is resumed, dissolve medications in water and give by syringe or give directly via a feeding tube to ensure that they reach the stomach
- **Sucralfate** suspension
- Antibiotics—indicated for animals with aspiration pneumonia or severe ulceration or tearing (perforation) of the esophagus
- Agents to decrease stomach-acid secretion (such as famotidine, ranitidine, cimetidine, omeprazole)—to prevent occurrence of further irritation of the lining of the esophagus by backward or reverse flow of stomach contents into the esophagus (gastroesophageal reflux)
- **Lidocaine** solution—to manage severe esophageal pain
- Anti-inflammatory dosage of corticosteroids (such as prednisone)—to decrease the possibility of narrowing of the esophagus (esophageal stricture formation) in severe cases
- Drugs that improve the propulsion of contents through the stomach and intestines (known as “gastrointestinal prokinetic agents,” such as cisapride, metoclopramide)—may help decrease backward or reverse flow of stomach contents into the esophagus (gastroesophageal reflux)
- Fentanyl patches to relieve pain—may be useful in severe cases of painful inflammation of the esophagus
- Analogues of erythromycin—may be useful in treating cats with inflammation of the esophagus secondary to gastroesophageal reflux disease

FOLLOW-UP CARE

PATIENT MONITORING

- Patients with mild esophagitis may not require follow-up evaluation of the esophagus using an endoscope; tracking of clinical signs may be sufficient
- Consider follow-up evaluation of the esophagus using an endoscope in patients with ulcerative inflammation of the esophagus and those at risk for narrowing of the esophagus (that is, esophageal stricture)

PREVENTIONS AND AVOIDANCE

- Prevent animals from ingesting caustic substances and foreign bodies
- If backward or reverse flow of stomach contents into the esophagus (gastroesophageal reflux) is the cause of inflammation of the esophagus (esophagitis), avoid late-night feedings as they tend to decrease the ability of the muscle between the stomach and esophagus to remain closed during sleep
- Proper patient preparation (fasting) prior to anesthesia decreases the risk of gastroesophageal reflux
- Follow administration of capsules and tablets by mouth with a teaspoon (5 ml) of water in cats and dogs

POSSIBLE COMPLICATIONS

- Narrowing of the esophagus (stricture formation)
- Tearing of the esophagus (esophageal perforation)
- Aspiration pneumonia
- Permanent problems with normal function/movement of the esophagus (known as “esophageal motility dysfunction”)
- Chronic backward or reverse flow of stomach contents into the esophagus (gastroesophageal reflux) leading to inflammation of the esophagus (known as “chronic reflux esophagitis”)
- Barrett’s esophagus—rare complication of chronic reflux esophagitis characterized by ulceration of the lower esophagus, may be related to cancer of the esophagus

EXPECTED COURSE AND PROGNOSIS

- Best results when patients are treated with a diffusion barrier (such as sucralfate) and agents to decrease stomach-acid secretion (such as famotidine, ranitidine, cimetidine, omeprazole)
- Mild inflammation of the esophagus—generally favorable prognosis
- Severe or ulcerative inflammation of the esophagus—guarded prognosis
- Complete recovery is possible if the disorder is recognized and treated before serious complications develop

KEY POINTS

- Inflammation of the esophagus
- Varies from mild inflammation of the superficial lining (known as “mucosa”) of the esophagus to severe ulceration, involving underlying layers including the muscle (known as “submucosa” [that is, “layer under the mucosa”] and “muscularis” [that is, “muscle”])
- Restrict food intake by mouth in patients with severe inflammation of the esophagus to allow healing
- Potential complications include aspiration pneumonia; scarring or narrowing of the esophagus (esophageal stricture); tear in the esophagus (esophageal perforation); and/or problems with normal function/movement of the esophagus (known as “esophageal motility dysfunction”)

