

Hiatal Hernia - An Uncommon Problem in Cats & Dogs

Cats and dogs can be affected by hernias of a wide variety. Most folks have heard of umbilical and inguinal hernias. This week's post is dedicated to a different type of hernia: a hiatal hernia. I hope you find the information interesting, and you'll consider sharing it with your pet-loving friends. Happy reading!



Hiatal Hernia - What is it?

To understand a hiatal hernia, one needs to have a basic understanding of the anatomy of the diaphragm. The diaphragm is a muscular partition between the chest and abdominal cavities. There are three openings in the diaphragm - the aortic hiatus, the caval foramen, and the esophageal hiatus. The esophagus, small blood vessels, and vagus nerve normally pass through the latter.

A hiatal hernia occurs abdominal contents inappropriately protrude through the esophageal hiatus into a part of the chest cavity called the caudal mediastinum. There are four types of hiatal hernias:

- **Type I:** This is called an axial or sliding hiatal hernia and is the most common type. The abdominal segment of the esophagus and part of the stomach move through the esophageal hiatus.
- **Type II:** This is called a paraesophageal or rolling hiatal hernia. With this type, the abdominal component of the esophagus doesn't herniate; rather only a portion of the stomach moves herniates into the caudal mediastinum through a defect in a part of the esophageal hiatus called the

phrenoesophageal membrane.

- Type III: This type is essentially a combination of type I and II and is rare in dogs
- Type IV: This type is essentially a type III hernia with concurrent herniation of other abdominal organs like the liver and small intestine.

They can be congenital or can develop later in life (called acquired hernias). Congenital hernias are most common. Potential causes of acquired hernias include:

- Trauma
- Brachycephalic airway syndrome
- Chronic vomiting
- Airway obstruction

What does it look like?

Brachycephalic breeds like English bulldogs, French bulldogs, chow chows, and Chinese shar peis, are over-represented for hiatal hernias (both congenital and acquired). The vast majority of affected dogs are less than one year of age.

Clinical signs of hiatal hernia can be quite variable. In at least one study, the majority of dogs with hiatal hernias had no clinical signs. When clinical signs are present, they often include:

- Regurgitation
- Coughing
- Poor body condition
- Dysphagia (difficulty swallowing)
- Ptyalism (excessive drooling)
- Tachypnea (increased respiratory rate)
- Weight loss
- Vomiting +/- hematemesis (vomiting blood)

How is it diagnosed?

Hiatal hernia can't be diagnosed based on clinical signs alone. Rather, diagnostic imaging is required to confirm a diagnosis of hiatal hernia is based with

compatible clinical signs. As such, veterinarians may recommend one or more of the following:

- Radiography (x-rays)
- Positive contrast esophagram - this is a specialized radiographic study that requires patients to eat/drink a contrast agent that shows up on radiographs. The contrast agent highlights the esophagus and can help delineate herniation from other types of esophageal problems
- Ultrasonography
- Fluoroscopy - this is essentially life-action radiography. A patient is asked to swallow liquid and/or food, and veterinarians can watch for abnormalities like herniation and motility changes
- Computed tomography (CT scan)
- Esophagoscopy - this study involves the use of a flexible fiber-optic camera that is inserted through the mouth into the esophagus. This modality is helpful for identifying inflammation, foreign objects, and strictures, and may identify hiatal hernia (see video below)

Pet owners may find it helpful to collaborate with a board-certified veterinary internal medicine specialist to develop a logical and cost-effective diagnostic plan.

How is it treated?

Treatment may not be necessary for those patients without clinical signs of hiatal hernia. However, surgery is the recommended course of action for those with hiatal hernia and meaningful clinical signs. Surgery involves three procedures performed at the same time:

- Esophagopexy - tacking the esophagus in place so it can't herniate
- Hiatal plication - narrowing the diameter of the esophageal lumen back to a more normal diameter
- Gastropexy - tacking the stomach in place so it can't herniate

Occasionally, affected patients have complications of their hernia that requires management, potentially before surgery is performed. These complications include esophagitis, gastroesophageal reflux, and aspiration pneumonia. It is important to address these concerns prior to anesthesia and surgery in the interest of always being as safe as possible.



Prognosis following surgery is good with ~80% experiencing meaningful improvement or resolution of their clinical signs. Some patients do have persistent GERD postoperatively for which chronic management is needed. Pet owners are encouraged to consult with a board-certified veterinary surgeon to discuss surgery.

The take-away message about hiatal hernia in cats & dogs...

Hiatal hernia is an uncommon problem in cats and dogs. When present, affected pets may have meaningful clinical signs that negatively affect their quality of life. Others have no clinical signs and require no treatment. Surgery in cats and dogs with clinical signs offers a good prognosis for returning to a high quality of life.

To find a board-certified veterinary internal medicine specialist, please visit the [American College of Veterinary Internal Medicine](#).

To find a board-certified veterinary surgeon, please visit the [American College of Veterinary Surgeons](#).

Wishing you wet-nosed kisses,

CriticalCareDVM