

What Is Your Diagnosis?

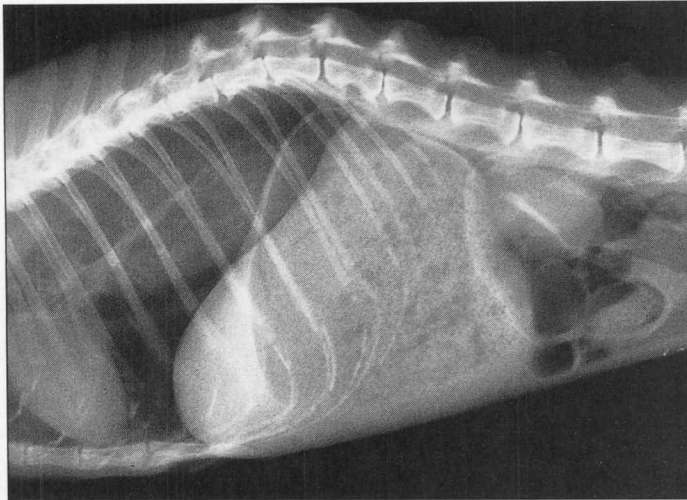
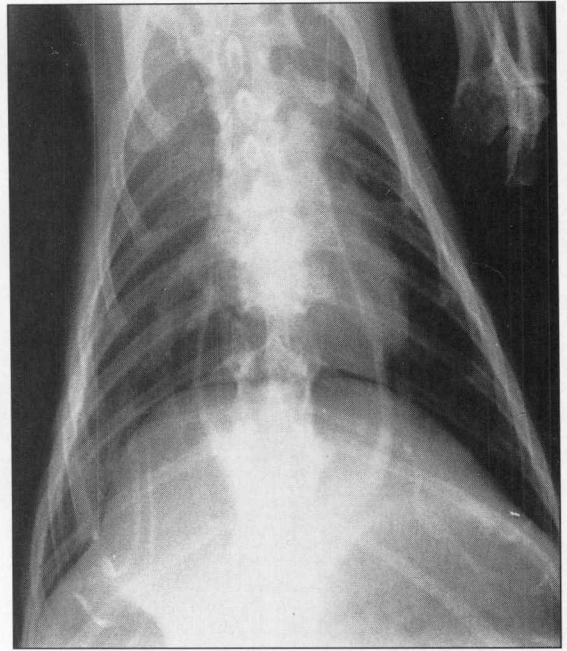


Figure 1—Lateral (left) and dorsoventral (right) radiographic views of a 13-year-old cat evaluated because of chronic vomiting, regurgitation, and weight loss.



History

A 13-year-old Maine Coon cat was examined because of a 3-year history of persistent vomiting, regurgitation, and weight loss. Physical examination findings included severe emaciation, moderate dehydration, gas distended loops of intestine, inspiratory wheezes, and a grade III/VI systolic heart murmur. A moderate degree of gastric dilatation and large amounts of gas in the small intestine were detected on abdominal radiographs. Thoracic radiographs also were obtained (Fig 1).

Determine whether additional imaging studies are required, or make your diagnosis from Figure 1—then turn to page 784.

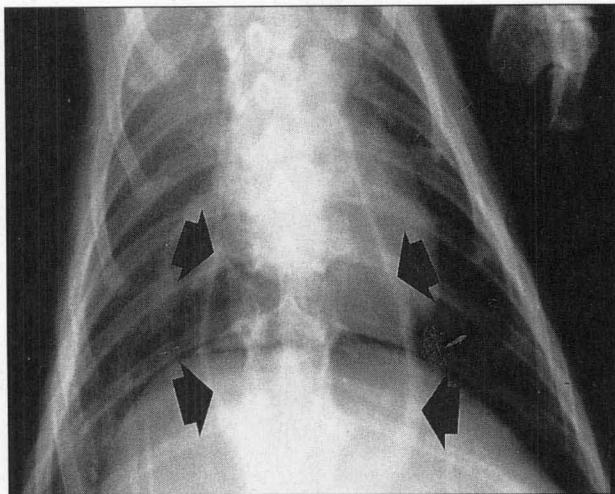


Figure 2—Same dorsoventral radiographic view as in Figure 1. Megaesophagus is evident (arrows).

Diagnosis

Radiographic diagnosis—Megaesophagus and gastrointestinal atony.

Comments

Initial radiographic results indicated that contrast radiography and fluoroscopy were warranted. Dilatation of the caudal segment of the thoracic portion of the esophagus, which was evident on the dorsoventral survey radiographic view (Fig 2), was also evident on the lateral radiographic view obtained 20 minutes after the cat received barium sulfate solution PO (Fig 3). Irregular linear filling defects within barium located in the caudal portion of the esophagus were consistent with gastric rugae. A sigmoid flexure in the esophagus at the level of the thoracic inlet, rugal folds in the dilated segment of esophagus, and normal esophageal motility were detected during fluoroscopy. These findings were consistent with a diagnosis of hiatal hernia.

Hiatal hernia is a rare condition in cats characterized by protrusion of abdominal viscera through the esophageal hiatus of the diaphragm into the thorax. Sliding esophageal and paraesophageal hiatal hernias have been described. Most hiatal hernias in animals are of the sliding type, which is defined as displacement of the abdominal portion of the esophagus, gastroesophageal junction, and cardia and fundus of the stomach through the esophageal hiatus into the thoracic cavity.^{1,2} In small animals, a hiatal hernia can be congenital or acquired, and the hernia may be intermittent or permanent. Transdiaphragmatic pressure differences account for intermittent herniation of abdominal organs.

Clinical signs associated with sliding esophageal hernia include ptyalism, regurgitation, vomiting, dysphagia, dyspnea, dehydration, and emaciation. Thoracic radiography may be beneficial in diagnosing hiatal hernia, because megaesophagus, soft-tissue opacities in the caudal portion of the thorax, or aspiration pneumonia may be evident. Esophagography may

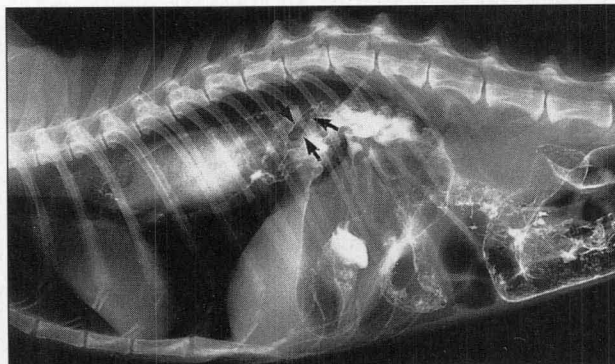


Figure 3—Lateral radiographic view of the cat described in Figure 1, obtained 20 minutes after oral administration of barium sulfate suspension. Barium retention in the dilated segment of the thoracic portion of the esophagus and generalized gastrointestinal distention are evident. Irregular linear filling defects within barium in the caudal portion of the esophagus correspond to rugal folds of the stomach (arrows).

be useful to reveal abdominal organ displacement into the esophagus.¹ Endoscopy can be used to document reflux esophagitis that may develop secondary to hiatal herniation. Contrast-enhanced fluoroscopy remains the standard for diagnosing hiatal hernia, because survey radiography may fail to detect intermittent herniation. Fluoroscopy also allows for detailed evaluation of peristaltic activity of the esophagus prior to surgical correction.

Treatment of hiatal hernia may consist of conservative medical management or surgery. Medical management involves feeding liquefied meals while the affected animal is in an elevated position and administration of gastric protectants, antiemetics, and prokinetic drugs. Several surgical procedures have been described for repair of hiatal hernia.¹⁻³ Surgical closure of the esophageal hiatus, esophagopexy, and gastropexy can restore anatomic orientation, and postoperative results have been favorable in a small number of dogs and cats.² The cat of this report was treated surgically by closing the esophageal hiatus and performing cardioesophageal fundogastropexy. Vomiting and regurgitation decreased in frequency and weight gain was documented, but the cat was euthanatized because of aspiration pneumonia that developed 7 months after surgery.

1. Ellison GW, Lewis DD, Philips L, et al. Esophageal hiatal hernia in small animals: literature review and modified surgical technique. *J Am Anim Hosp Assoc* 1987;23:391-399.

2. Prymack C, Saunders HM, Washabau RJ. Hiatal hernia repair by restoration and stabilization of normal anatomy, an evaluation of four dogs and one cat. *Vet Surg* 1989;18:386-391.

3. Peterson SL. Esophageal hiatal hernia in a cat. *J Am Vet Med Assoc* 1983;183:325-326.

This report was submitted by John H. Rossmeisl, Jr, DVM; William E. Blevins, DVM, MS, DACVR; and William R. Widmer, DVM, MS, DACVR; from the Veterinary Teaching Hospital (Rossmeisl) and the Department of Veterinary Clinical Sciences (Blevins, Widmer), School of Veterinary Medicine, Purdue University, West Lafayette, IN 47907. Dr. Rossmeisl's present address is the Department of Small Animal Clinical Sciences, Virginia-Maryland Regional College of Veterinary Medicine, Virginia Tech, Blacksburg, VA 24061.