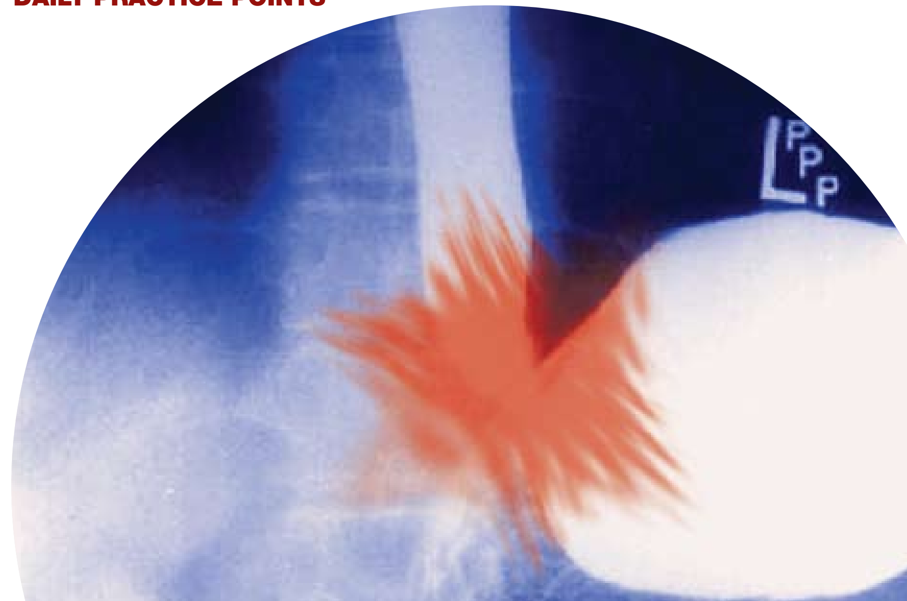

Hiatus hernia

Watch for symptoms besides GERD

BY SANDER VAN ZANTEN, MD

Hiatus hernia is a very common anatomic abnormality, not a disease in itself. It's the protrusion of the upper part of the stomach into the thoracic cavity. Hiatus hernia usually occurs as the result of a weakness in the diaphragm at the level where the esophagus joins the cardia portion of the stomach. The best recognized risk factor is obesity, although others may include smoking, frequent coughing, female gender, and family history, but none of these are proven. In a significant proportion of patients, the condition is probably present at birth.

Sander van Zanten, MD, FRCPC is Professor of Medicine and Director of the Division of Gastroenterology at the University of Alberta in Edmonton.

Symptoms

- mostly asymptomatic
- gastroesophageal reflux disease (GERD)
  - heartburn — rising from the upper abdomen into the chest
  - regurgitation — gastric contents refluxing back into the esophagus toward the mouth
- dysphagia
  - from more severe reflux esophagitis, stricture forms at the GE junction
  - from obstruction due to large hiatus hernia, e.g. paraesophageal hernia
  - potentially serious — further investigation required, i.e. upper-GI endoscopy

Types

Sliding hiatal hernia

- most common, 95% of cases
- a small portion of the upper stomach, i.e. cardia and/or fundus, is situated above the diaphragm, inside the thorax
- present in 10-20% of individuals

Paraesophageal hernia

- 5% of cases
- part of the stomach herniates through the diaphragmatic opening, but the gastroesophageal junction itself stays in its normal position just below the diaphragm
- varies in size
- if large, can cause dysphagia, upper abdominal pain and a feeling of incomplete stomach emptying
- acute presentations
  - complete obstruction of part of the stomach
  - strangulation leading to ischemia and necrosis
  - severe epigastric and retrosternal pain

When to refer

- gastroenterologist
  - patient whose symptoms start around age 50
  - dysphagia
  - for gastroscopy to rule out more sinister diseases, e.g. esophageal or gastric cancer
- surgeon
  - progressive symptoms of dysphagia
  - intermittent obstruction
  - episodes of severe pain, especially with a large paraesophageal hernia

Diagnosis

- often an incidental finding from other investigations
- upper-GI endoscopy
  - gastroesophageal junction is located above the diaphragm
  - gastric folds extend above the level of the diaphragmatic impression
  - on a retrograde view of the stomach, gastric folds extend beyond the level of the diaphragm and don't fit snuggly around the endoscope at the level of the cardia
  - paraesophageal hernia can't be diagnosed easily — suspect when endoscopic difficulty with orientation of the proximal stomach
- upper-GI barium x-ray series
  - contrast studies show gastric folds above the level of the diaphragm
  - N.B.: presence of reflux on an upper-GI series doesn't mean symptomatic GERD; healthy individuals also experience short episodes of reflux

Management

- asymptomatic — no treatment required
- reflux symptoms
  - acid-suppressive therapy if severity warrants
- dysphagia
  - definitely needs investigation
  - acid-suppressive therapy
  - if due to very large sliding hernia, surgical procedure may be required
- corrective surgery
  - for large paraesophageal or sliding hernia with symptoms, e.g. dysphagia or intermittent obstructive symptoms
  - Nissen fundoplication
    - operation of choice
    - part of the fundus of the stomach is wrapped around the inferior end of the esophagus, correcting the defect in the diaphragm and preventing the reflux of gastric contents into the esophagus
    - often done laparoscopically
    - more extensive surgery may be required for complicated hernia
- dietary
  - often patients complain that certain foods bother them
  - no conclusive evidence that coffee, tea, chocolate or citrus fruits adversely affect GERD symptoms
  - moderation is key — small meals, avoid eating late at night
- lifestyle measures
  - weight loss
  - smoking cessation
  - avoid lying down directly after meals
  - elevating the head when sleeping

Complications

- GERD
  - with or without erosive esophagitis
  - due to acid and gastric contents trapped inside the hiatus hernia sac
  - with diaphragmatic contractions, the fluid is more likely to regurgitate into the esophagus, leading to prolonged exposure
- Barrett's esophagus
  - transition of squamous esophageal epithelium into a gastric-type epithelium just above the GE junction inside the tubular esophagus
  - 3-5% of all patients with GERD
  - evidence of hiatus hernia as a risk factor
- obstruction and strangulation
  - rare
  - from large hiatus hernia or paraesophageal hernia
  - most commonly diagnosed on upper-GI series, but can be suspected during endoscopy

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