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## GENERAL SURGERY BOARD REVIEW MANUAL

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## Surgical Management for Gastroesophageal Reflux Disease

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# Surgical Management for Gastroesophageal Reflux Disease

Marc M. Zaré, MD

## INTRODUCTION

Gastroesophageal reflux disease (GERD) is one of the most prevalent gastrointestinal disorders. In a sample US adult population, 20% reported symptoms of GERD once per week.<sup>1</sup> Quality of life for patients with GERD is severely affected and is lower than the quality of life for patients with congestive heart failure or angina.<sup>2</sup>

GERD represents a derangement of the physiologic and anatomic components of the antireflux barrier. The exact cause is unknown. In healthy individuals, gastric distension can cause transient relaxation of the lower esophageal sphincter (LES).<sup>3</sup> In up to 80% of patients, inappropriate transient LES relaxation is the principal mechanism for pathologic reflux of gastric contents into the esophagus.<sup>4,5</sup> In severe GERD, other contributing factors have been identified, including hypotensive LES, diaphragmatic crural dysfunction, and hiatal hernia.

GERD is defined by the presence of (1) reflux esophagitis (based on Los Angeles classification system<sup>6</sup>), and/or (2) reflux symptoms that are sufficient to impair quality of life, and/or (3) risk of long-term complications (eg, esophageal stricture, Barrett's esophagus).<sup>7</sup> Common presenting symptoms include heartburn and regurgitation. Atypical laryngeal-pulmonary symptoms, such as cough and hoarseness, often require a multidisciplinary approach to reach the correct diagnosis.

Different patterns of clinical behavior are observed among patients with GERD. In most patients, symptoms play a central role in clinical presentation and endoscopic evidence of pathologic reflux is lacking.<sup>8,9</sup> This clinical presentation is referred to as *endoscopy-negative reflux disease* or *nonerosive reflux disease*. Approximately 20% to 30% of patients present with reflux esophagitis and have endoscopic findings such as erosions, ulcers, and stricture formation. Barrett's esophagus is present in 5% to 15% of patients<sup>10-12</sup> and predisposes to adenocarcinoma.<sup>13,14</sup>

## REFLUX ESOPHAGITIS

### CASE 1 PRESENTATION

A 52-year-old man with an 8-year history of GERD is referred to you by a gastroenterologist. Endoscopy at the time of diagnosis revealed esophageal erosions. Since then, the patient has been compliant with lifestyle changes and medical therapy; the patient's current medication is omeprazole 80 mg/day. Although his symptoms have improved with medical therapy, the patient has continued to experience heartburn at least twice weekly. In addition, he has experienced dysphagia for solid food for the past 3 months.

- **Are this patient's symptoms typical for GERD?**

### CLINICAL FEATURES OF REFLUX ESOPHAGITIS

This patient's clinical description is consistent with reflux esophagitis, a clinical pattern of GERD characterized by mucosal erosions evident on esophagoscopy. Reflux esophagitis can range from mild disease with superficial erosions to severe disease complicated by ulcers and strictures.

Heartburn, as defined by a burning feeling originating from the lower chest or stomach and radiating toward the lower neck, is the most common presenting symptom in GERD. Symptoms of dysphagia occur less commonly than heartburn in patients with GERD. Dysphagia has a point prevalence of 14% in the community<sup>7</sup> and 37% in patients with reflux esophagitis.<sup>15</sup> The main concern with dysphagia is whether the symptom is related to esophageal adenocarcinoma. Dysphagia has a low predictive value for cancer.<sup>16-18</sup> Thus, not all patients with this symptom require endoscopic evaluation. However, new symptom onset, increasing intensity of symptoms, and a lack of response to medical therapy warrant further investigation to rule out malignant etiology.

- **How is failure of medical therapy for GERD defined?**