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GASTROENTEROLOGY BOARD REVIEW MANUAL

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Managing Complications of Antireflux and Bariatric Surgery

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Cover Illustration by Christine Armstrong

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Managing Complications of Antireflux and Bariatric Surgery

John E. Pandolfino, MD, and Alexander P. Nagle, MD

INTRODUCTION

Over the past decade, the number of laparoscopic procedures performed for 2 very common medical problems—gastroesophageal reflux disease (GERD) and obesity—has exploded. As a result, the management of postoperative side effects and complications of these surgeries has become an increasingly important aspect of gastroenterology practice. GERD is a disorder that affects 40 million people in the United States,¹ and for patients with chronic GERD, antireflux surgery is an important therapeutic option. Many patients are opting for surgical intervention for GERD in place of lifelong medical therapy. Along similar lines, obesity has reached epidemic proportions in the United States; the National Institutes of Health (NIH) recommends that for patients with severe obesity, gastric restrictive or bypass surgery be considered as a treatment option.² This monograph uses a case-based format to review laparoscopic surgical procedures for the treatment of GERD and obesity. Indications for surgery, as well as the potential complications of the procedures, are discussed.

ANTIREFLUX SURGERY

OVERVIEW OF GERD

GERD encompasses all clinical disorders that result from reflux of gastric juice into the esophagus. GERD is a common disorder, with 7% of the US population experiencing daily symptoms and 14% experiencing weekly symptoms.¹ The clinical presentation varies widely, ranging from endoscopy-negative disease with significant reflux symptoms (eg, heartburn, regurgitation, dysphagia, extraesophageal symptoms) to reflux esophagitis and its complications (eg, peptic stricture, Barrett's metaplasia).

The pathophysiology of GERD involves a balance between those factors tending to injure the esophageal

epithelium and those tending to preserve it. Reflux events are prevented by a competent esophagogastric junction; however, this barrier can be overcome by transient lower esophageal sphincter (LES) relaxations, prolonged episodes of LES hypotension, and anatomic disruption secondary to hiatus hernia.

Most cases of GERD can be diagnosed based on symptom assessment and empiric trials with high-dose proton pump inhibitor (PPI) therapy. Endoscopy should be performed if the diagnosis is in doubt or when heartburn is extremely severe or has been chronic. Patients with intermittent mild GERD can be treated with over-the-counter antacids or H₂-blockers; patients with esophagitis and symptoms more frequently than 3 times weekly typically require PPI therapy.

An ideal therapy for GERD would target the pathophysiologic abnormalities, obviating the need for acid suppression. Unfortunately, no medication is currently available that can restore the antireflux barrier. Antireflux surgery was developed to address these pathophysiologic abnormalities and may improve reflux by increasing basal pressure of the high-pressure zone and decreasing the frequency of transient LES relaxations. Some studies report long-term success rates of greater than 90% over 10 to 20 years after open fundoplication; others, however, have described return of esophagitis in 50% of cases within 6 years.³ Whether surgery is as good or better than medical therapy with PPIs is difficult to ascertain at this time because the data comparing long-term PPI therapy to open and laparoscopic fundoplication is controversial.

Antireflux surgery may be considered in the following settings: (1) failed medical therapy with persistent symptomatic esophagitis and stricture; (2) failed medical therapy with persistent symptoms and an abnormal pH study; (3) successful medical therapy in a patient who is young and healthy but is unwilling to take lifelong medication; and (4) severe symptoms caused by regurgitation. Because of the risks inherent to surgery, the decision to pursue medical or surgical therapy must include a careful risk-benefit analysis.