



Getting Over GERD

What Are the Options?

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Gastroesophageal reflux disease (GERD) is the most common disorder of the esophagus. GERD is one of the most frequent complaints made by patients in the office setting. Medical and surgical therapy are both effective, however, the optimal use of these treatment options remains controversial.

Surgical therapy

Surgical treatment of GERD involves wrapping the gastric fundus around the lower esophagus. The laparoscopic Nissen fundoplication, which involves the creation of a 360 degree wrap, is currently the most commonly used surgical therapy for GERD.

Proponents of surgical therapy argue that the most important aspect of the pathophysiology of GERD is the competency of the anti-reflux barrier. Anti-reflux surgery is the only available therapy that reliably decreases the frequency of transient lower esophageal sphincter (LES) relaxations, increases LES pressure and length, and corrects a hiatal hernia if present. Anti-reflux surgery may also improve esophageal motility and speed gastric emptying.

The efficacy of anti-reflux surgery is well documented in literature. Peters *et al.*¹

Gertie's GERD

- Gertrude, 45, presents with a history of chronic heartburn and regurgitation.
- She is otherwise healthy.
- She is initially placed on a proton pump inhibitor, taken once daily.



- One year later, her symptoms return and she is referred for an endoscopy, which shows esophagitis.
- Her PPI dose is doubled and her symptoms improve.
- She is burdened by the cost of medication and wishes to consider the surgical options.

There's more to Gertie on page 69.

studied 100 patients with typical symptoms of GERD for a mean period of 21 months. The primary symptom, usually heartburn or regurgitation, responsible for surgery was relieved in 96% of patients. The condition of two patients was made worse by the surgery and clinically significant complications occurred in only four patients.

More on Gertie

- Subsequent work-up reveals a small, sliding, hiatal hernia noted on barium swallow.
- Esophageal manometry reveals normal esophageal body peristalsis and a decreased lower esophageal sphincter pressure.
- After discussing the risks of surgery, she undergoes a laparoscopic Nissen fundoplication.
- Aside from some transient dysphagia early on after surgery, her symptoms resolve, as does her esophagitis.

A review of six randomized trials (RCTs) and three cohort studies were conducted from 1996 to 1999. These trials compared medical and surgical therapies and showed improved objective and subjective outcomes, including symptoms and patient satisfaction, favouring surgery.²

The two largest RCTs were the veterans affairs (VA) co-operative study³ and the Nordic study.⁴ Both of these trials showed superiority, favouring the surgical treatment arm:

- In the mid-1980s, the VA trial enrolled patients with complicated GERD and showed superiority for surgical therapy as compared to histamine-2 receptor antagonists (H2-RAs) and metoclopramide.
- The Nordic trial randomized 310 patients with erosive esophagitis to surgery or omeprazole. At three and five years of followup, there were more treatment failures in the medical arm of the trial.

Quality of life data revealed an improvement to within normal ranges for both groups of patients during the five years of followup.

Successful anti-reflux surgery corrects the underlying pathophysiology, improves symptoms, normalizes quality of life scores and seems to be as good as, or better than, medical therapy in comparative trials.



Medical therapy

Proponents of medical therapy argue that it is safe, effective and well tolerated. Previous studies compared surgical therapy with, what is now recognized to be inferior, medical therapy (*i.e.*, H2-RAs). Proton pump inhibitors (PPIs) are much more effective acid suppressants and are clearly superior to H2-RAs. No comparison between surgical therapy to PPI therapy has shown a difference.

It is also argued that there are risks associated with surgery. In the study by Peters *et al.* that included only those patients considered to be ideal candidates for surgery, two patients were made worse by surgery and 14% of these


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patients, in followup, were back on anti-reflux medication to control symptoms. In a review of over 10,000 patients,⁵ the perioperative complication rate was 5% and the operative mortality was 0.08%. The need for reoperation ranged from 2% to 6%.

The VA and the Nordic trials can also be interpreted in favour of medical therapy. In the Nordic trial, when patients were allowed to adjust the dose of omeprazole to control symptoms, which is the standard of care, the number of treatment failures was similar between groups. Follow-up data from this study also suggests that medical therapy may be more cost-effective than surgical therapy.⁶

In the VA trial, the 10-year followup data on 247 patients showed no outcome differences between the medical and surgical arms.⁷ However, more than 60% of patients in the surgical arm were taking anti-reflux medication on a regular basis. This suggests that anti-reflux surgery may not be as durable as once thought.

Given the safety of PPI therapy, proponents of medical therapy argue that even the small risk associated with surgery is too high in patients with GERD that respond to medical therapy. 



Take-home message

- There is no one “best” treatment for GERD.
- Treatment should be tailored to the individual patient.
- Anti-reflux surgery should be considered for patients who are intolerant of PPIs due to side-effects or cost, patients who are not compliant with medications and for patients who desire a permanent solution to free them of the need to take medications.
- Patients who are only partially responsive to PPIs may benefit from surgery, however, a complete workup prior to surgery is required.
- The best predictor of a good surgical outcome is success with medical therapy.

References

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