TYPICAL AND ATYPICAL MANIFESTATIONS OF GASTROESOPHAGEAL REFLUX DISEASE

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INTRODUCTION

Gastroesophageal reflux disease (GERD) usually presents with heartburn or regurgitation. These symptoms occur most commonly within two hours after eating or while in the recumbent position. In addition to this typical presentation, many so-called "atypical" forms of GERD also occur. This includes angina-like chest pain, asthma, chronic cough and chronic hoarseness of voice. Although some regard symptoms of GERD as mere an annoyance, in many this may have an important effect on the quality of life (1). Furthermore, up to 20% of patients have more serious complications such as ulcerative esophagitis, peptic stricture, or epithelial metaplasia (Barrett's esophagus) with its premalignant potential (2). In most individuals, particularly those who present to a gastroenterologist, GERD is often a chronic relapsing condition. Therefore, long-term treatment is the essence of managing this condition.

CASE STUDY

A 42-year old automobile mechanic is referred for evaluation of GERD. He reports a 4-year history of retrosternal burning sensation both at work and post-prandially. Treatment with ranitidine, 300 mg bid and cisapride, 10 mg at bed time, has improved symptoms. However, he has frequent relapses and the referring physician is concerned about
the long term management. Physical examination reveals a moderately obese male with otherwise normal physical findings.

1. What would be your initial approach to this patient’s problem?
   A. Discuss lifestyle modifications (Phase 1) therapy.
   B. Perform a Bernstein test.
   C. Perform endoscopy.
   D. Perform intraesophageal pH monitoring study.
   E. Order a GE scintiscan.

2. Endoscopic evaluation reveals linear erosions extending 6 cm above the GE junction. What is your next recommendation?
   A. Obtain intraesophageal pH monitoring study.
   B. Increase the dose of ranitidine.
   C. Cisapride 10–20 mg qid.
   D. Combination of ranitidine and cisapride.
   E. Begin treatment with a proton pump inhibitor.

3. On omeprazole, 20 mg/day the patient’s symptoms recurred within three months. What is the preferred approach?
   A. Obtain intraesophageal and intragastric pH monitoring study while on therapy.
   B. Obtain a surgical consult.
   C. Increase omeprazole dose to 20 mg BID.
   D. Combine omeprazole and cisapride.
   E. Obtain esophageal manometry.

**Prevalence of GERD**

Epidemiologic studies have shown that daily heartburn occurs in about 10% of the US adult population and that up to 40% have occasional heartburn (3). These percentages only relate to the more typical manifestations of heartburn and regurgitation. Thus, the addition of patients with the “atypical” manifestations would make the estimated frequency of GERD even higher. The recent commercial attention to OTC medications for the treatment of heartburn and the greater than one billion dollars in sales of these products annually in the United States underscore the prevalence of this condition.

One of the important questions is whether Gastroesophageal reflux disease (GERD) is primarily a motility disorder. What is the evidence?

**PATHOPHYSIOLOGY OF GERD**

**Lower Esophageal Sphincter (LES) Incompetence**

An early report by Cohen and Harris compared radiographic evidence of hiatal hernias with lower esophageal sphincter pressures in patients with or without GERD symptoms and came up with the concept that the critical factor in anti-reflux competence was a resting LES pressure greater than 10 mmHg (4). Although this concept was attractive, subsequent studies have failed to confirm this observation. In one such study, Kahrilas and colleagues compared resting LES pressures in healthy volunteers with that of reflux patients without