What's Up in GERD?

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As presented at the University of British Columbia's Hot Topics in Gastroenterology (October 2004)

Gastroesophageal reflux disease (GERD) is characterized by a reversal of the normal distal passage of gastric contents back into the esophagus. Acid regurgitation is present when gastric contents return to the pharynx. The prevalence of heartburn and acid regurgitation in adults is estimated to range from 7% to 20%.

Neil's case

- Neil, 30, presents with a one-year history of intermittent retrosternal chest discomfort and regurgitation of food and gastric contents shortly after every meal.
- He reveals he is embarrassed to attend social functions as a result of his symptoms.

What is your management plan? For the answer, go to page 89.

What are the symptoms?

The primary complaints are heartburn and acid regurgitation, but GERD may also present as a "lump" in the throat, hoarseness, angina-like chest pain, nausea, vomiting and odynophagia.

Some patients experience chronic cough and aspiration, leading to worsening of pulmonary conditions like asthma or chronic obstructive pulmonary disease (COPD). An important observation is some patients with asthma have significant reflux without esophageal symptoms.

Table 1 lists some GERD-related complications.

Key points:

- In GERD, endoscopy is not indicated in every patient.
- The most appropriate initial therapy for a patient with GERD is a PPI.
- *H. pylori* eradication is not indicated for GERD.

How is GERD diagnosed?

Once GERD is suspected, several investigations can be done, if necessary. Endoscopy contributes little to the diagnosis and does not need to be performed on every patient with GERD. However, in those over 45 with alarm symptoms or in whom there is new onset dyspepsia, endoscopy should be performed.

Double contrast barium swallow exams are of limited use due to the limited sensitivity with milder forms of GERD. Other tests include 24-hour intraesophageal pH monitoring or intraesophageal manometry.

As most studies have failed to show an association between GERD and

Table 1

GERD complications

- Esophageal strictures
- Ulcerations
- Perforations
- Barrett's esophagus (squamous metaplasia of the esophageal columnar epithelium)
- Esophageal adenocarcinoma
- Severe esophagitis (Figure 1)
- Inability to tolerate medication
- Persistent symptoms despite maximal medical therapy
- Recurrent respiratory symptoms

Figure 1. Erosive linear esophagitis seen at endoscopy.

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Helicobacter pylori, *H. pylori* testing and eradication are not recommended unless peptic ulcer disease is suspected.

How is GERD managed?

The primary objective of treatment is relief of symptoms with secondary goals of healing esophagitis, preventing complications and maintaining remission (Figure 2). Treatment can be initiated based on symptoms, without the need for endoscopy (unless warning signs are present). Lifestyle modification plays a role in the treatment, but only provides benefit in < 20% of patients.

1. Medical treatment

The mainstay of medical treatment are proton pump inhibitors (PPIs). They are superior to H-2 receptor antagonists (H2RA). Healing efficacies are similar among the different available PPIs. The addition of a promotility agent, doubling of dosage, increasing the frequency or addition of a H2RA to a PPI may help refractory cases.

Switching to another PPI may also be beneficial in some patients, as individuals may be more responsive to one PPI than another. Reversible PPIs may prove to have superior anti-acid control, but research is ongoing.

2. Surgical treatment

Surgery tends to be reserved for patients with reflux complications Open surgery has largely been replaced by laparoscopic techniques. There are a variety of surgical techniques available, including Nissen fundoplication, Belsey Mark repair and Hill repair. Current experience with antireflux surgery suggests there is no single best operation for all patients.

3. Endoscopic treatment

►*Enteryx®*

Enteryx is a compound injected into the lower esophageal sphincter (LES) by endoscopy, forming a spongy, solid mass. It appears to lead to clinical improvement in up to 80% of patients with uncomplicated GERD whose symptoms had responded to a PPI. Longer-term results are awaited.

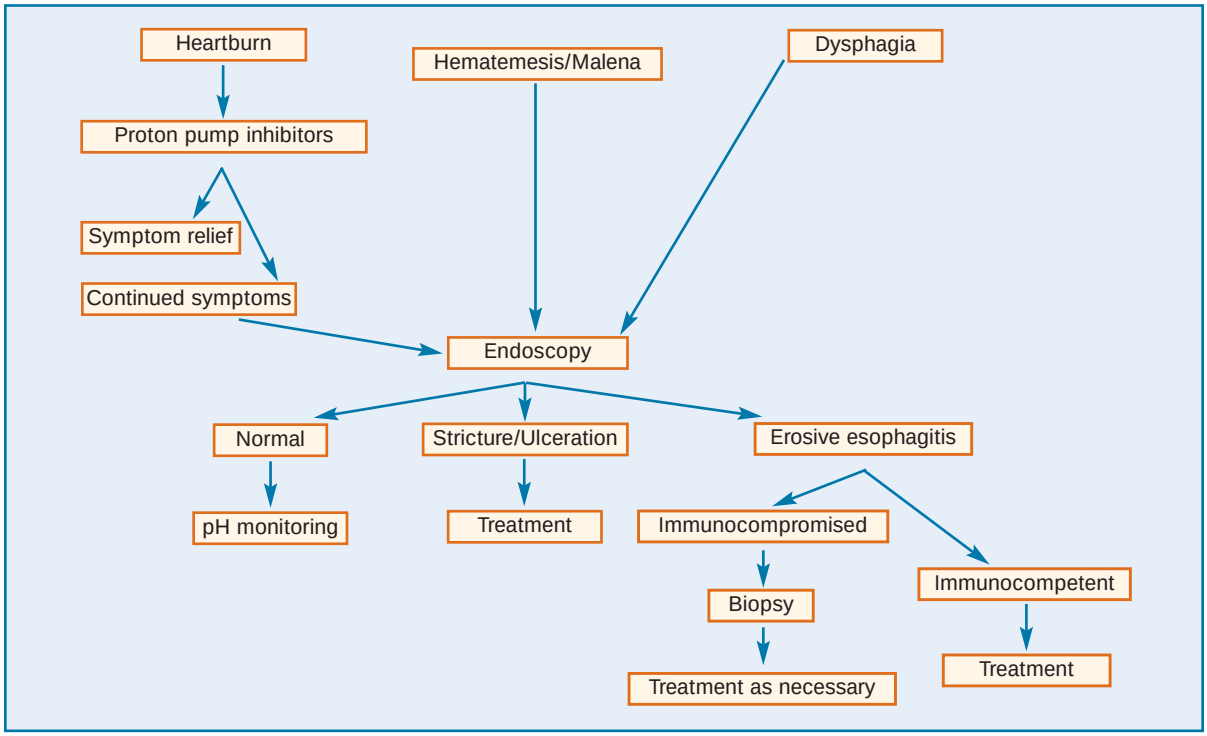

Figure 2. GERD treatment algorithm.

►*Endoscopic plication*

Innovative new endoscopic therapies for GERD have provided an alternative to medical or surgical treatments. These include sewing devices and the full thickness plication device. The principles of these techniques involve endoscopic-assisted placements of sutures at the region of the LES to create plications that change the anatomy and prevent reflux.

None of these techniques have been sufficiently studied to be considered standard options for the treatment of GERD and long-term outcome studies are pending.

►*Radiofrequency treatment*

This involves the application of controlled radiofrequency (RF) energy to the LES region with endoscopic guidance to reduce postprandial transient LES relaxations. The precise role of RF in GERD will require further study and long-term followup. Dx

A followup on Neil

- Neil is given a course of a proton pump inhibitor, which significantly improves his symptoms of reflux.
- However, the problem of regurgitation persists and continues to bother him.
- Neil is started on a trial of preprandial promotility agent (domperidone), which provides adequate relief of his symptoms.

References available—contact *The Canadian Journal of Diagnosis* at **diagnosis@sta.ca**.