Atypical GERD- Poor Response to PPI: What's Next?

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BC Digestive Diseases Weekend

May 12, 2018

- Gastroesophageal reflux disease (GERD) is defined as: "Symptoms or complications resulting from the reflux of gastric contents into the esophagus or beyond."
- The esophagogastric junction (EGJ) is comprised of the lower esophageal sphincter (LES) and crural diaphragm, and provides a high-pressure zone to prevent reflux events.
    - This function is compromised in patients with hiatal hernia.
    - The majority of reflux events in patients without a hiatal hernia are mediated by transient LES relaxations.
    - Protective mechanisms against GERD include salivation and esophageal peristalsis.
- The typical symptoms of GERD are heartburn and acid regurgitation. Atypical symptoms include chest pain, laryngitis, cough, and dental erosions.
    - Sensitivity and specificity of symptom-based diagnosis of GERD are only 60-70%.
- Empiric trial of proton pump inhibitor (PPI) in patients with typical symptoms of GERD is more cost-effective than diagnostic testing.
    - However, sensitivity of this approach is 71%, and specificity 44%, for establishing the diagnosis of GERD.
    - Avoid indefinite PPI therapy by encouraging lifestyle modifications:
        - Modest weight loss may reduce GERD symptoms and lower the risk of Barrett's esophagus.
        - Nocturnal symptoms may respond to placing blocks under bedposts or sleeping on a wedge.

        - Broad dietary restrictions are not recommended; individual patients learn on their own what foods are triggers for their symptoms.
        - Smoking and alcohol cessation are not known to improve GERD symptoms, but lower the risk of esophageal adenocarcinoma.
- The various PPI formulations are equivalent in their ability to control GERD symptoms.
    - PPIs should be dosed 30 minutes before meals (typically breakfast, if dosed daily).
    - Escalating PPI dosing to twice daily in non- or partial responders is reasonable, but there is no evidence of benefit for dosing beyond this.
- Additional diagnostic testing is indicated in the following populations:
    - Patients with alarm symptoms (e.g. dysphagia, hematemesis, unintentional weight loss).
    - Patients (especially males) with > 5 years GERD symptoms and at least 2 risk factors for Barrett's esophagus: age > 50 years, Caucasian race, central obesity, history of smoking, family history of Barrett's esophagus or esophageal adenocarcinoma.
    - Patients with GERD symptoms not adequately controlled by PPI therapy.
- Any of the following endoscopic findings confirms the diagnosis of GERD: high-grade erosive esophagitis (LA grade C or D), Barrett's esophagus > 1 cm, or peptic stricture.
    - Erosive esophagitis is only found in 30% of treatment-naïve patients with heartburn, and < 10% of patients on PPI.
- Ambulatory reflux monitoring should be considered in the following groups: patients with typical symptoms and normal endoscopy, patients with atypical symptoms, or patients in whom anti-reflux surgery is being considered.
    - In patients without known GERD, ambulatory reflux monitoring should be done after discontinuing PPI therapy for 5-7 days.
    - Acid exposure time > 6% (over a 24 hour time period) is diagnostic of GERD.

    - Reflux-symptom association may establish a cause-and-effect relationship between reflux events and symptoms.
        - Symptom index (percentage of reflux events preceded within 2 minutes by a reflux event) > 50% is positive.
- For patients diagnosed with symptomatic GERD uncontrolled by twice daily dosed PPI, the following may be considered:
    - Adding bedtime H2 receptor antagonists may help nocturnal symptoms, but tachyphylaxis is common.
    - Adding alginates (e.g. Gaviscon) may be more effective in symptom control than antacids.
    - Baclofen reduces reflux events, but its use is limited by central side effects.
    - Prokinetics provide modest, if any, symptom control, and likely are most beneficial in patients with documented delayed gastric emptying.
    - Anti-reflux surgery may provide lasting benefit, but non-response to PPI may predict suboptimal symptom response to surgery. The presence of a hiatal hernia predicts better satisfaction.
- Patients with heartburn, but negative ambulatory reflux monitoring testing and reflux-symptom association have “functional heartburn”.
    - These patients should be reassured and taken off of PPI therapy.
    - Management strategies may include tricyclic antidepressants, SSRIs, and psychological interventions.

References

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