Reflux Disease (GERD)

See also GERD (pregnant)

Background

1. Montreal consensus definition
    - "A condition which develops when the reflux of stomach contents causes troublesome symptoms and/or complications."
    - Symptoms are "troublesome" if they adversely affect an individual's well-being
2. Most patients self medicate and do not seek medical care
3. 75% of patients seeking medical therapy report heartburn as main symptoms
4. 1 of 5 US adults experiences heartburn weekly, 1 in 4 pregnant women have daily symptoms
5. Most pts with heartburn > 2x/week have normal esophagus on EGD

Pathophysiology

1. Pathology of disease
    - Exact etiology still unclear
    - Decreased amplitude of lower esophageal sphincter
        - Exacerbated by fats, chocolates, xanthines, mints, carminatives, calcium channel blockers, prostaglandins, anti-cholinergics, alcohol
    - Impaired esophageal clearance
    - Decreased esophageal motility
    - Decreased esophageal contraction
2. Incidence, prevalence
    - Accounts for 5-7% of Primary Care workload
    - 1 in 5 U.S. adults experiences heartburn weekly
    - 7% of Americans have heartburn daily
3. Risk factors
    - No evidence of clear predictive factor for GERD
    - May predispose
        - Obesity, tobacco abuse, coffee, citrus fruits, dietary fats
4. Morbidity/mortality
    - At least a minority of patients with nonerosive GERD eventually develop erosive GERD
        - Not universally accepted
    - 1-13% patients with erosive GERD develop Barrett's esophagus annually
    - Up to 75% of patients have significant morbidity related to GERD, showing quality of life scores significantly lower than a non–GERD control population

Diagnostics

1. History
    - Heartburn
    - Waterbrash
        - Involuntary regurgitation of liquefied food into esophagus or larynx
    - Chronic cough, chest pain, hoarseness or loss of voice
        - 10-40% of pts with chronic cough have GERD

2. Physical exam
    - Inflammation of throat and larynx
3. Diagnostic testing
    - Endoscopy
        - To evaluate patients with a suspected esophageal GERD syndrome who have not responded to an empirical trial of twice-daily PPI therapy (SOR:B)[2]
        - With biopsy - for patients with an esophageal GERD syndrome with troublesome dysphagia (SOR:B)[2]
    - Manometry
        - To evaluate patients with a suspected esophageal GERD syndrome who have not responded to an empirical trial of twice-daily PPI therapy and have normal findings on endoscopy (SOR:B)[2]
    - Ambulatory impedance-pH, catheter pH, or wireless pH monitoring (PPI therapy withheld for 7 days)
        - To evaluate patients with a suspected esophageal GERD syndrome who have not responded to an empirical trial of PPI therapy, have normal findings on endoscopy, and have no major abnormality on manometry (SOR:B)[2]
    - Acid suppression therapy trial
        - Can identify patients with GERD who do not have alarm symptoms (SOR:A)[2] and may be helpful in the evaluation of those with atypical manifestations of GERD, specifically, non-cardiac chest pain (NCCP) (SOR:B)[1]
    - EGD
        - Consider for refractory or alarm symptoms
            - Anemia, painful swallowing, weight. loss, melena (SOR: I – insufficient evidence to recommend)[2]
        - Not recommended as routine screen for Barrett's esophagus (precancerous metaplasia of esophageal mucosa)
            - Risk of esophageal adenocarcinoma in general population small and Barrett's esophagus is a weak risk factor

Differential Diagnosis

1. Key DDx
    - Peptic ulcer disease
    - Angina pectoris
    - Esophageal carcinoma
    - Achalasia
    - Chemical esophagitis
    - Pill-induced esophagitis
        - Doxycycline, bisphosphonates, potassium chloride
2. Extensive DDx
    - Radiation injury
    - Crohn's disease of esophagus
    - Alkaline reflux

Therapeutics

1. Acute treatment
    - Weight loss
        - Advised for overweight or obese patients with esophageal GERD syndromes (SOR:B)[2]
    - Elevation of the head of the bed
        - Patients who are troubled with heartburn or regurgitation when recumbent (SOR:B)[2]
    - Other lifestyle modifications
        - Avoiding late meals, avoiding specific foods (e.g. caffeine, chocolate, alcohol, citrated drinks, high fat foods), or avoiding specific activities should be tailored to the circumstances of the individual patient (SOR:B)[2]
    - PPI therapy
        - Twice-daily as empirical trial for patients with suspected reflux chest pain syndrome after cardiac etiology has been considered (SOR:A)[2]
2. Long-term care
    - Mild symptoms
        - OTC antacids
    - Moderate to severe disease: step-down therapy
        - Long-term use of PPIs for treatment of patients with esophagitis once they have proven clinically effective (SOR:A)[2]
        - Long-term PPI therapy titrated down to the lowest effective dose based on symptom control (SOR:A)[2]
        - Maintenance Rx if necessary with once daily PPI (more effective) or H2 blockers
    - General Tx recommendations
        - Proton pump inhibitors (PPIs)
            - More effective than histamine-2 receptor antagonists (H2RAs), which are more effective than placebo (SOR:A)[2]
            - Rapid relief of symptoms
            - Fewer side effects
            - 1st line treatment in elderly
                - Chronic use assoc/w incr risk of hip fracture in older adults, pneumonia in adults and children, gastroenteritis in children, and C.difficile infection in hospitalized pts
            - Twice-daily PPI therapy for patients with an esophageal syndrome with inadequate symptom response to once-daily PPI therapy (SOR:B)[2]
            - Short course or as-needed anti-secretory drugs in patients with symptomatic esophageal syndrome without esophagitis when symptom control is primary objective (SOR:B)[2]
    - Bone density monitoring, calcium supplementation not recommended (SOR: I – insufficient evidence)[2]
    - Extra-esophageal symptoms (laryngitis, asthma)
        - Once- or twice-daily PPIs (or H2RAs) for acute Tx in the absence of concomitant esophageal GERD syndrome (SOR: D – Not recommended)[2]

- Surgical therapy
  - When antireflux surgery and PPI therapy offer similar efficacy in patient with an esophageal GERD syndrome, PPI therapy recommended initially because of superior safety (SOR:A)[2]
  - When patient with esophageal GERD syndrome is responsive to, but intolerant of, acid suppressive therapy, antireflux surgery should be recommended as alternative (SOR:A)[2]
  - Antireflux surgery for patients with esophageal GERD syndrome with persistent troublesome symptoms, especially troublesome regurgitation, despite PPI therapy (SOR:B)[2]
  - Potential benefits of antireflux surgery weighed against deleterious effect of new symptoms consequent from surgery, particularly dysphagia, flatulence, an inability to belch, and postsurgery bowel symptoms (SOR:B)[2]
  - Nissen fundoplication – laparoscopic best
  - Other laparoscopic techniques/therapies
    - Bard EndoCinch system
    - NDO Plicator
    - Stretta system

Follow-Up

1. Return to office
   - Follow-up in 2-4 weeks to assess efficacy of lifestyle and/or medication interventions – in office, by phone or secure messaging
2. Refer to specialist
   - Refer when warning signs and symptoms are present, patient unresponsive to appropriate therapy or for special studies
3. Admit to hospital
   - Not indicated unless pt is experiencing intractable abdominal pain, vomiting, or gastrointestinal bleeding

Prognosis

1. Majority of patients respond well to anti-secretory therapy
2. Symptoms and esophageal inflammation often return promptly when treatment withdrawn

Patient Education

1. http://familydoctor.org/online/famdocen/home/common/digestive/disorders/087.html

Evidence-Based Inquiry

1. Is the long-term use of proton pump inhibitors safe?
2. Which patients with GERD should have EGD?
3. How often is cough the presenting complaint in patients with GERD?
4. Is therapy based on endoscopy results better than empiric therapy for dyspepsia?
5. What is the best way to manage GERD symptoms in the elderly?

6. What are the potential long-term risks of proton pump inhibitors?
7. What is the best diagnostic approach to laryngopharyngeal reflux?

References

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