

MANAGEMENT OF GASTROESOPHAGEAL REFLUX DISEASE

Dr Aung Naing Htoo

Gastroenterologist and Interventional Endoscopist

Greenlane Medical Specialists

DISCLOSURES

- None

CONTENTS

- Case Discussion
- Pathophysiology of GERD
- Types of GERD
- Management of GERD – New drugs and interventional procedures

CASE 1

- Mr AR 77 year old Indian gentlemen presented initially with reflux symptoms and dyspepsia initially around 2014
- He was negative for H.pylori and started in PPI therapy.

PMHx: Hypertension, Diabetes and Dyslipidemia

Meds: Aspirin Gulvumet

Social: Ex smoker 20 pack years

He was referred for gastroscopy due to ongoing symptoms despite PPI therapy and also other risk factors

- Presented again with worsening symptoms in 2024
- PPI was reintroduced this time not helping at all and send to Gastroenterology review
- Seen in clinic given the previous normal endoscopy
- On further history of previous treatments he would take his PPI regularly every morning for the First 2 weeks and when his symptoms improve stop taking them and stop it. He also likes to take them as needed when symptoms occur.

SHOULD WE SCOPE HIM?

- At this stage he is now 77 years last scope was 2 years ago
- Independent ADLs
- Chronic reflux symptoms for over 10 years

SPECIMEN 6 of 10

GASTRO-OESOPHAGEAL JUNCTION NODULE BIOPSY

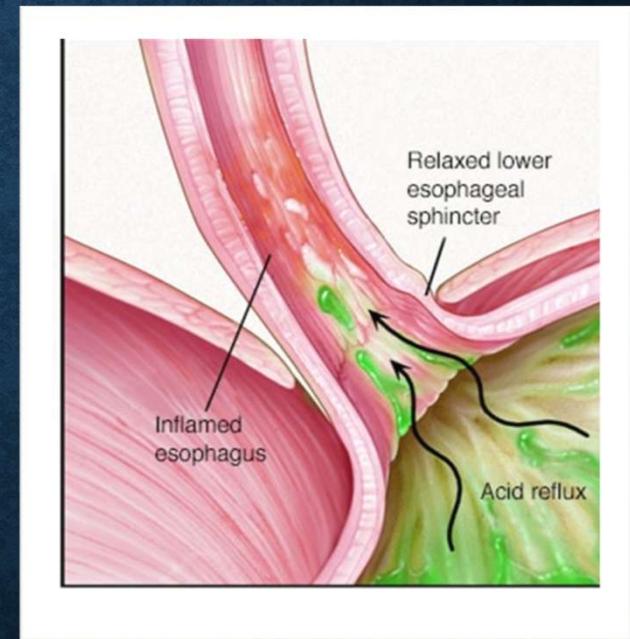
- AT LEAST INTRAMUCOSAL ADENOCARCINOMA

- HER2 NEGATIVE BY FISH

Signed by: Dr Jamie Bishop, Consultant Pathologist (12/09/2024 5:18:15 PM)

GERD

- Gastroesophageal reflux disease (GERD) is a chronic medical condition caused by the flow of contents from the stomach upwards into the esophagus resulting in both symptoms and complications.
- Prevalence: Affects ~20% of adults in Western countries.
- Increasing due to obesity, diet, and aging.
- The most common symptoms of GERD are heartburn and regurgitation.



CLINICAL MANIFESTATION

- A burning sensation in the chest, often called heartburn. Heartburn usually happens after eating and might be worse at night or while lying down.
- Backwash of food or sour liquid in the throat.
- Upper belly or chest pain.
- Dysphagia.
- Sensation of a lump in the throat.

If you have nighttime acid reflux, you also might experience:

- An ongoing cough.
- laryngitis.
- New or worsening asthma.

PATHOPHYSIOLOGICAL MECHANISM

- **Transient LES Relaxations (TLESRs)**
- **Hypotensive LES**
- **Anatomical Factors (Hiatal Hernia)**
- **Reduced Esophageal Clearance**
- **Delayed Gastric Emptying**
- **Impaired Mucosal Resistance**

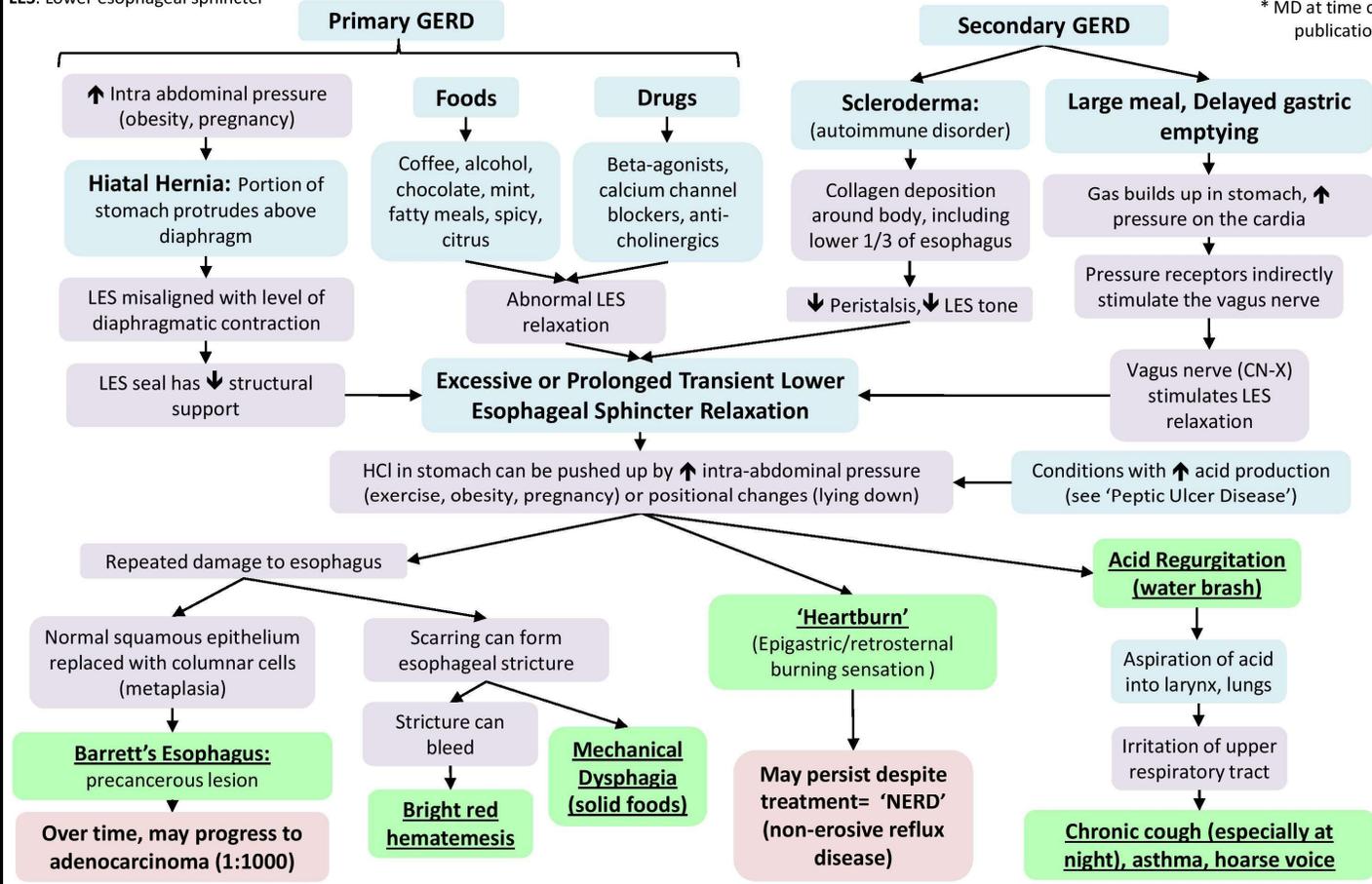
De Giorgi F, Palmiero M, Esposito I, Mosca F, Cuomo R. Pathophysiology of gastro-oesophageal reflux disease. Acta Otorhinolaryngol Ital. 2006 Oct;26(5):241-6. PMID: 17345925; PMCID: PMC2639970.

Gastroesophageal Reflux Disease (GERD): Pathogenesis & Clinical Findings

Author: Matthew Harding
 Reviewers: Dean Percy,
 Jason Baserman, Yan Yu,
 Kerri Novak*
 * MD at time of
 publication

Abbreviations:

LES: Lower esophageal sphincter



Legend: Pathophysiology Mechanism Sign/Symptom/Lab Finding Complications

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DIAGNOSIS

Endoscopy- In patients who fail PPI therapy, an upper endoscopy with biopsies of the esophagus, if not performed in the last one year.

Esophageal impedance pH testing — Patients who fail twice daily PPI therapy should also undergo esophageal pH monitoring.

Esophageal manometry — in patients with dysphagia and regurgitation and prior to invasive antireflux therapies to exclude an esophageal motility disorder

RED FLAGS

Uncomplicated dyspepsia	>55 y old with onset of dyspepsia within the last year or continuous symptoms since onset
<i>Or</i>	
Alarm symptoms at any age	Any of the following: Dysphagia Anorexia Vomiting Weight loss Anaemia
<i>Or</i>	
Dyspepsia with high risk features at any age	Any of the following: Family history of upper gastrointestinal cancer in >2 first degree relatives Barrett's oesophagus Pernicious anaemia Peptic ulcer surgery >20 y previously Known dysplasia, intestinal metaplasia or atrophic gastritis

- Kapoor N, Bassi A, Sturgess R, Bodger K. Predictive value of alarm features in a rapid access upper gastrointestinal cancer service. *Gut*. 2005 Jan;54(1):40-5. doi: 10.1136/gut.2004.039438. PMID: 15591502; PMCID: PMC1774389.

Guidelines for Barrett's esophagus screening by national and international organizations

Organization (Publication Year)	Screening Recommendations
American College of Gastroenterology (2022) ¹⁸	<p>A single screening endoscopy is suggested for patients with chronic GERD symptoms and 3 or more additional risk factors for BE, including male sex, age >50 years, White race, tobacco smoking, obesity, and family history of BE or EAC in a first-degree relative.</p> <p>A swallowable, non-endoscopic capsule device combined with a biomarker is an acceptable alternative to endoscopy for screening for BE.</p>
American Gastroenterological Association (2022) ¹⁹	<p>Screening with standard upper endoscopy may be considered in individuals with at least 3 established risk factors for BE and EAC, including individuals who are male, non-Hispanic white, age >50 years, have a history of smoking, chronic GERD, obesity, or a family history of BE or EAC.</p> <p>Non-endoscopic cell-collection devices may be considered as an option to screen for BE.</p>
European Society of Gastrointestinal Endoscopy (2020) ²⁰	<p>Endoscopy screening may be considered only in those with long-standing GERD symptoms (i.e., > 5 years) and multiple risk factors (age ≥ 50 years, white race, male sex, obesity, first-degree relative with BE or EAC).</p>
American Society for Gastrointestinal Endoscopy (2019) ²¹	<p>If screening endoscopy for BE is performed, a screening strategy is suggested that identifies an at-risk population, defined as individuals with a family history of EAC or BE (high risk) or patients with GERD plus at least 1 other risk factor (moderate risk).</p>
British Society of Gastroenterology (2014) ²²	<p>Endoscopic screening can be considered in patients with chronic GERD symptoms and multiple risk factors (at least three of age 50 years or older, white race, male sex, obesity). However, the threshold of multiple risk factors should be lowered in the presence of family history including at least one first-degree relative with Barrett's or EAC.</p>

Risk factors for Barrett's esophagus — Screening for Barrett's esophagus is typically recommended for patients with multiple risk factors (one of which must be duration of GERD of at least 5 to 10 years).

Risk factors for Barrett's esophagus include:

- Duration of GERD of at least 5 to 10 years
- Age 50 years or older
- Male sex
- White individuals
- Hiatal hernia
- Obesity
- Nocturnal reflux
- Tobacco use (past or current)
- First-degree relative with Barrett's esophagus and/or adenocarcinoma