Benign Esophageal Diseases

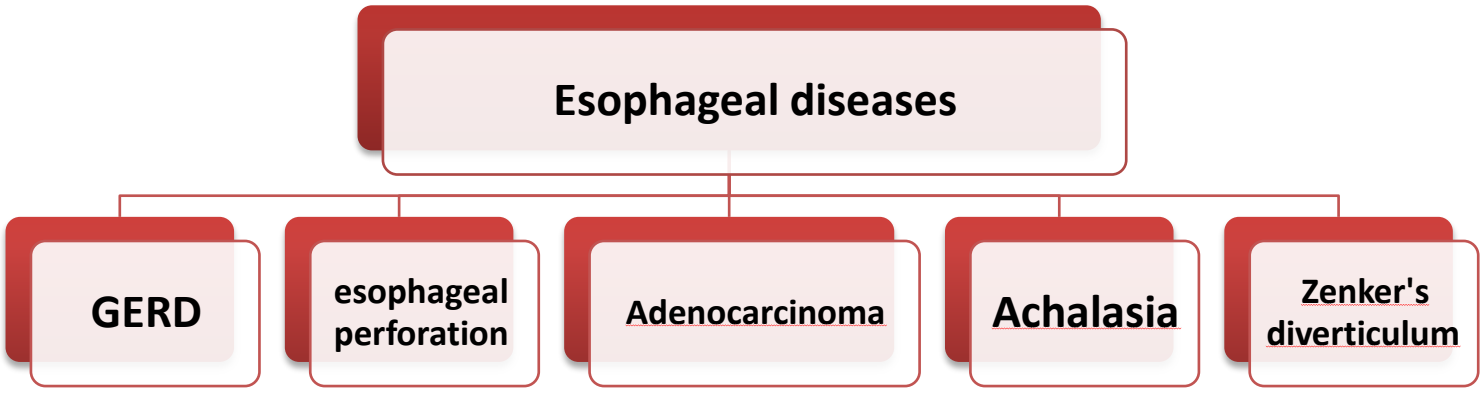
Done by: *Mamdouh N. Al-Enezi*

Revised by: *Abdullah Altowim*

431 SURGERY TEAM

Leaders:

AbeerAL-Suwailem Mohammed Alshammari



GERD

Gastroesophageal reflux disease:

Symptoms OR mucosal damage produced by the abnormal reflux of gastric contents into the esophagus.

Clinical Presentations:

- ✓ Substernal burning and or regurgitation
- ✓ Postprandial
- ✓ Aggravated by change of position (especially supine position)
- ✓ Prompt relief by antacid (good response)

Some patient may come with Extraesophageal Manifestations of GERD :

Pulmonary	ENT	Others
Asthma **Aspiration pneumonia** **Chronic bronchitis** **Pulmonary fibrosis(long standing)** **(aspiration)**	Hoarseness Laryngitis Pharyngitis Chronic cough Globus sensation Dysphonia Sinusitis Subglottic stenosis Laryngeal cancer	Chest pain Dental erosion

Reflux can mimic different diseases.

Symptoms of Complicated GERD :

- **Dysphagia** : Difficulty swallowing
- **Odynophagia** : Retrosternal pain with swallowing
- **Bleeding**

If patient come to you with symptoms suggesting GEDR you should do :

X-Ray	Barium swallow	Esophageal pH Monitoring	Esophageal Manometry	Endoscopy
TO EXCLUDE THE complications	we can detect Reflux and Hiatus hernia as well. It should done in prober way otherwise it will give a false negative.	There are two ways : - Probe through a nasal tube to esophagus (24h monitoring) - bravo capsule: small capsule implanted in the esophagus and connected to wireless device to measure the PH (24h). -if the result above than 14 acording to demister score the patient has GERD	Probe to esophagus to measure the contractility of the muscles	Mutable sample should be taken for abnormal areas to roll out **Barrett's Esophagus** and malignancy.

Hiatus hernia:

There are two major kinds of hiatus hernia:

- **Sliding hiatus hernia** is the the most common (95%), where the gastroesophageal junction moves above the diaphragm together with some of the stomach.
- **rolling (or paraesophageal) hiatus** hernia accounts for the remaining 5% of hiatus hernias, when a part of the stomach herniates through the esophageal hiatus and lies beside the esophagus, without movement of the gastroesophageal junction.

A third kind is also sometimes described, and is a combination of the first and second kinds

If patient don't treat GERD, he may develop **Barrett's Esophagus**

Barrett's Esophagus：

Metaplasia: intestinal columnar epithelium replaces the stratified squamous epithelium with goblet cells **.**there is high risk of developing adenocarcenoma.

Treatment:

- **Lifestyle Modifications**

☒ Elevate head of bed 4-6 inches
☒ Avoid eating within 2-3 hours of bedtime
☒ Lose weight if overweight
☒ Stop smoking
☒ Modify diet

- **Acid Suppression Therapy**

H_2-Receptor Antagonists (H_2RAs)	Proton Pump Inhibitors (PPIs)
Cimetidine (Tagamet®) **Ranitidine (Zantac®)** **Famotidine (Pepcid®)** Nizatidine **(Axid®)**	**Omeprazole (Prilosec)** **Lansoprazole (Prevacid)** **Rabeprazole (Aciphex)** **Pantoprazole (Protonix)** **Esomeprazole (Nexium)**

- **Anti-Reflux Surgery**

Indication for Surgery :

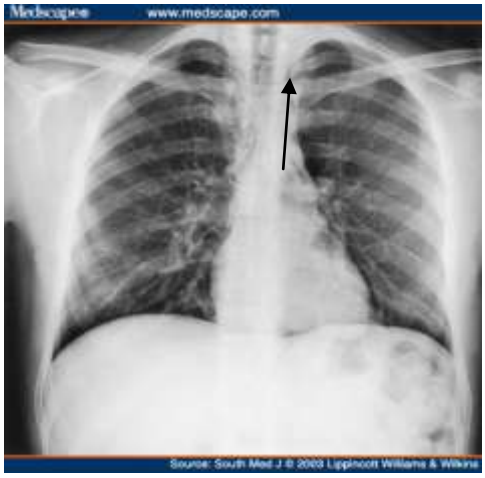
✓ have failed medical management
✓ opt for surgery despite successful medical management (due to life style considerations including age, time or expense of medications, etc)
✓ have complications of GERD (e.g. Barrett's esophagus; grade III or IV esophagitis)
✓ have medical complications attributable to a large hiatal hernia. (e.g. bleeding, dysphagia)
✓ have "atypical" symptoms

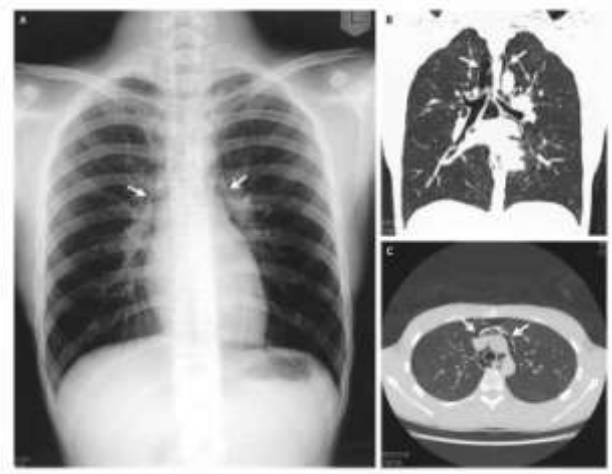
Perforation of the esophagus

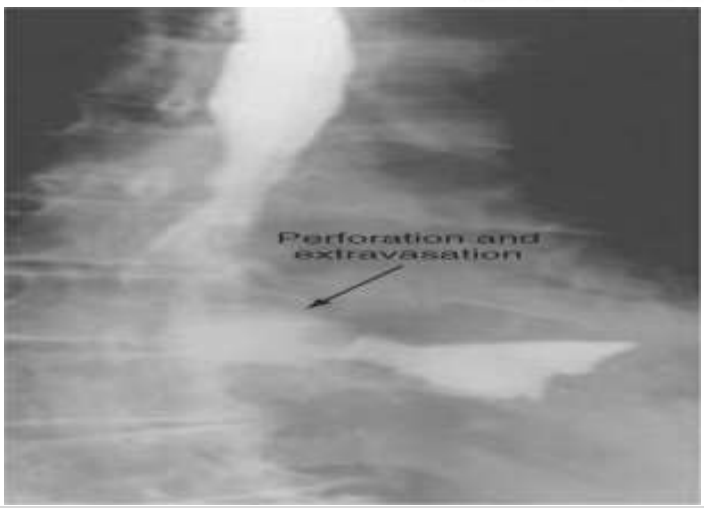
- Most esophageal perforations occur after endoscopic instrumentation for a diagnostic or therapeutic procedure.
- With increased mediastinal and pleural contamination, patients progress toward hemodynamic instability
- A contrast esophagram is done using barium for a suspected thoracic perforation and Gastrografin for an abdominal perforation.
- Chest CT shows mediastinal air and fluid at the site of perforation
- Patient may complain of odynophagia and mild fever .

Treatment :

1- IV fluids and broad-spectrum antibiotics are started immediately, and the patient is monitored in an ICU
2- Primary surgical repair.
3- Conservative therapy: nothing per oral(NPO) for 7-10 days till the perforation heal . IV fluids for only three days after that we give TPN (total parenteral nutrition) through central line include proteins, carbohydrates and lipids .

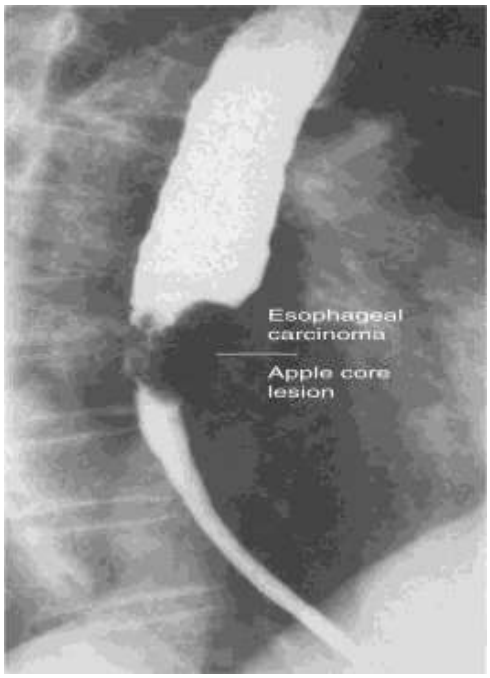


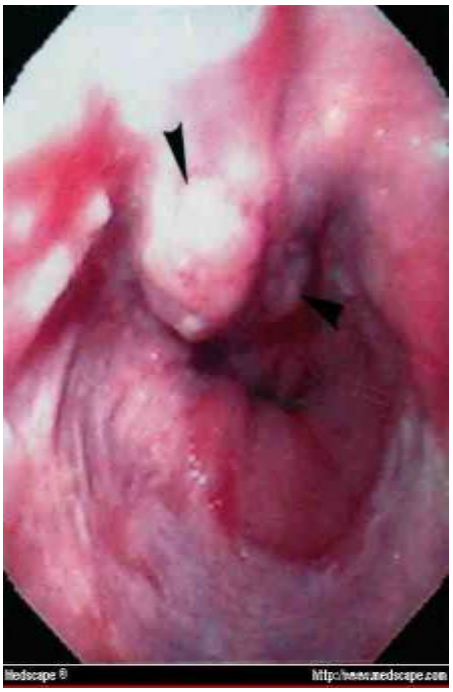




Adenocarcenoma of the esophagus

- It maybe the late stage of untreated GERD and Barrett's Esophagus .
- We diagnose it by biopsy taken from the esophagus , and barium test .





Treatment :

Depends on the stage of the tumor :

- ✓ If it is in the early stage we treat the patient with **surgical excision only** .
- ✓ If it is in advance stage we treat with **Radiotherapy an chemotherapy then surgical excision .**
- ✓ If very advance stage **, there is no point to surgical intervention** just chemotherapy and Radiotherapy

Achalasia

- ❖ Is one of the esophageal motility disorders , 25-60 age group complaining of Dysphagia to solids and liquids.
- ❖ It is characterized by paralysis of the esophagus muscles and hypertensive lower sphincter and failure of relaxation .

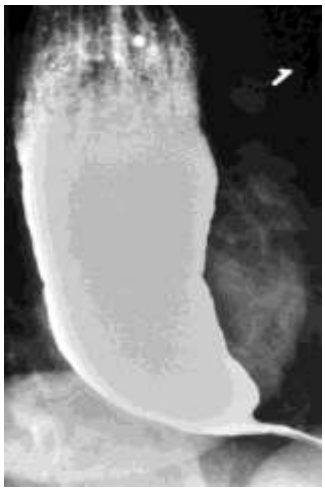
Usually diagnosed by :

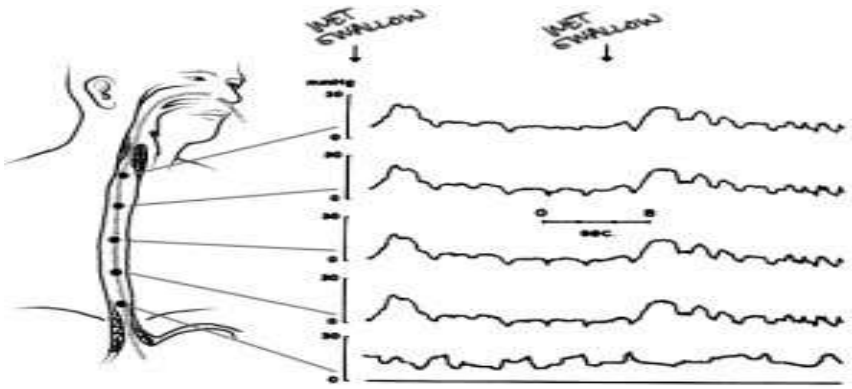
1- **Dilatation of esophagus in the barium test : bird's beak**
2- **Esophageal manometry has the highest sensitivity for the diagnosis of achalasia :**

- ✓ aperistalsis of the distal esophageal body
- ✓ incomplete or absent LES relaxation
- ✓ hypertensive LES

Treatment :

- **Medical therapy**: calcium channel blockers to relax LES
- **Botulinum toxin injection**: to relax LES
- **Bneumatic dilation**: by endoscopy to relax LES
- **Surgical myotomy(heller myotomy)** : cutting LES muscles longitudinally

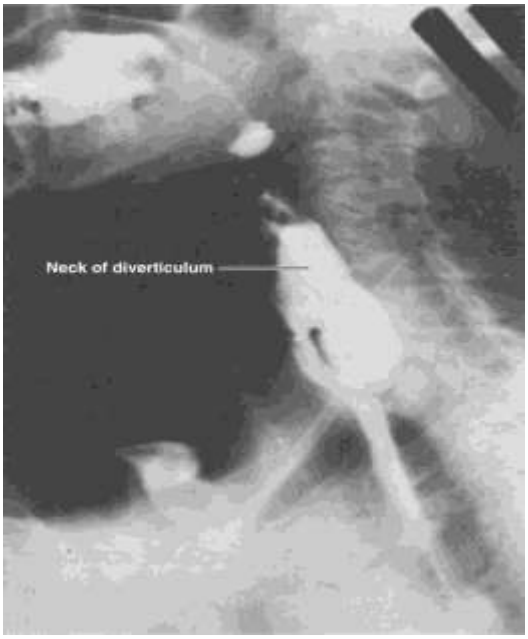


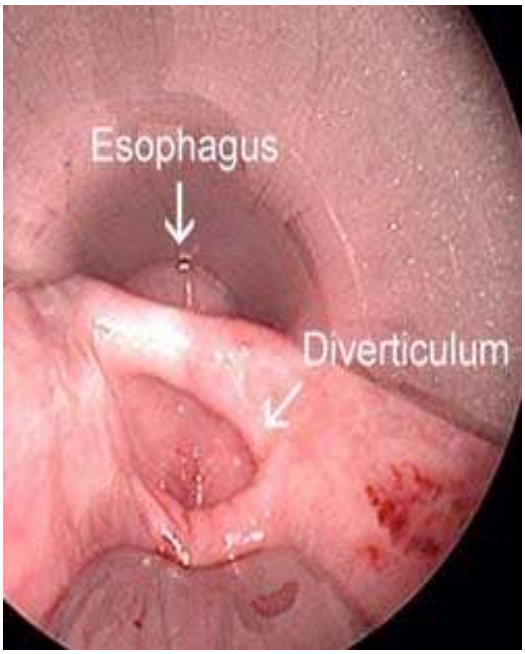


Zenker's diverticulum

Characterized by **Halitosis (bad breath) and coughing** after eating .

You diagnose it by : barium test and endoscopy





Treatment :

Open Surgical or endoscopic repair of a Zenker's diverticulum is the gold standard of treatment. And decrease the pressure by myotomy to prevent formation of another pouch.

Summary

	GERD	esophageal perforation	Adenocar-cinoma	Achalasia	Zenker's diverticu-lum
Clinical Presentations	1)substernal burn 2)postprandial 3) Aggravated by changing position 4)relief by antacid	1)odynophagia and 2) mild fever	It maybe the late stage of untreated GERD and Barrett's Esophagus		1) Halitosis (bad breath) 2) coughing after eating
complication	**Barrett's Esophagus**				
Diagnosis	- Barium swallow - Esophageal pH Monitoring - Esophageal Manometry - Endoscopy	1) A contrast esophagram is done using barium for a suspected thoracic perforation 2) Gastrografin for an abdominal perforation	1) Biopsy 2) barium test	1) barium test 2)Esophageal manometry	1)barium test 2) Endoscopy
tratment	**1)Lifestyle Modifications** **2)Acid Suppression Therapy** -Cimetidine (Tagamet) -Ranitidine (Zantac) -Omeprazole (Prilosec) -Esomeprazole (Nexium) **3)Anti-Reflux Surgery**	IV fluids and broad-spectrum antibiotics Primary surgical repair Conservative therapy	**1)Early stage:** surgery **2)Advance stage:** Radiotherapy and chemotherapy then surgery **3)Very advance stage:** just chemotherapy and Radiotherapy	1) calcium channel blockers 2) Botulinum toxin injection 3) Bneumatic dilation 4) Surgical myotomy (heller myotomy)	Open Surgical or endoscopic repair of a Zenker's diverticulum is the gold standard of treatment

Questions:

Q1: 65 year old female diagnosed with zenker's diverticulum, which one of the following symptom most likely she had?

A- Halitosis
B- Vomiting
C- Haematamesis
D- mild fever

Q2: 55 year old newly diagnosed with diffuse esophageal spasm, his presenting history may include one of the following:

A- Abdominal pain
B- Chest pain and dysphagia
C- Haematemesis
D- Recurrent vomiting

A,B