

Esophagus

Anatomy, Symptomatology & Investigations

Prof. Naveed Jabbar Bandesha

Chairman Department of Surgery & Allied

MBBS, FRCS

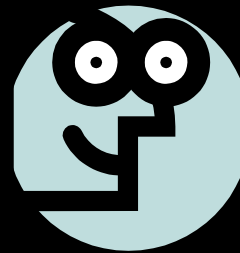
Masters Healthcare

Diploma Laparoscopic Surgery

Diploma Public Administration

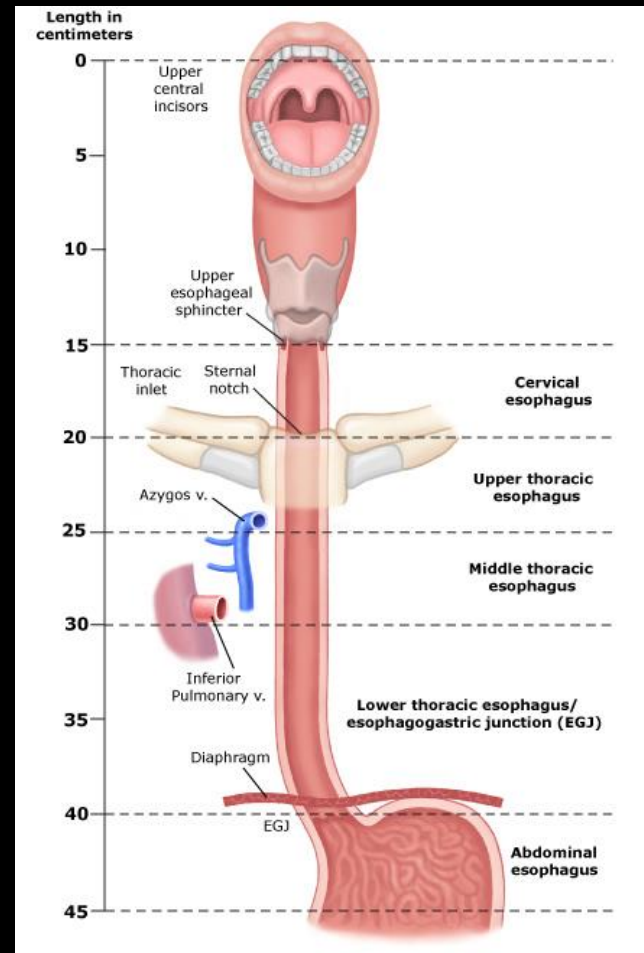
Learning Objectives

- Surgical anatomy of oesophagus
- Common features
- Common Investigations
- **How to approach a patient with esophageal problem**



Anatomy of Esophagus

- Hollow muscular tube
- 25cm long
- Connects pharynx & stomach
- Starts at lower border of cricoid cartilage (C6)
- Passing diaphragm at T10
- Ends in stomach at T11



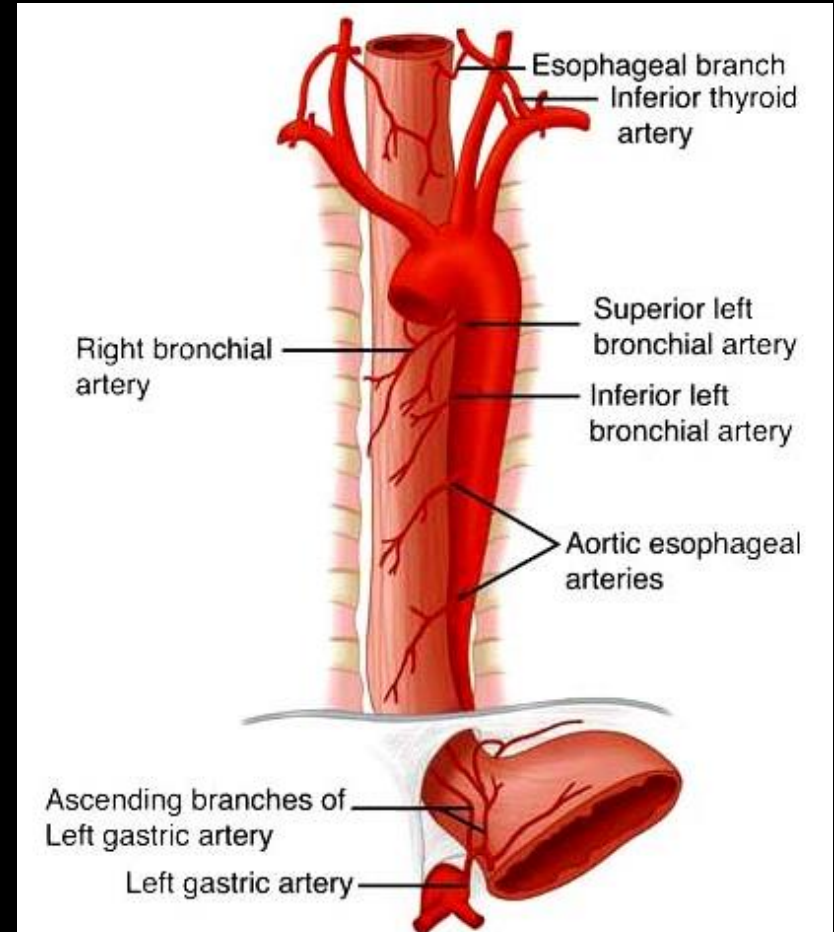
Arterial Supply

- Segmental arterial supply from

Inferior thyroid, CCA,
costocervical & vertebral arteries

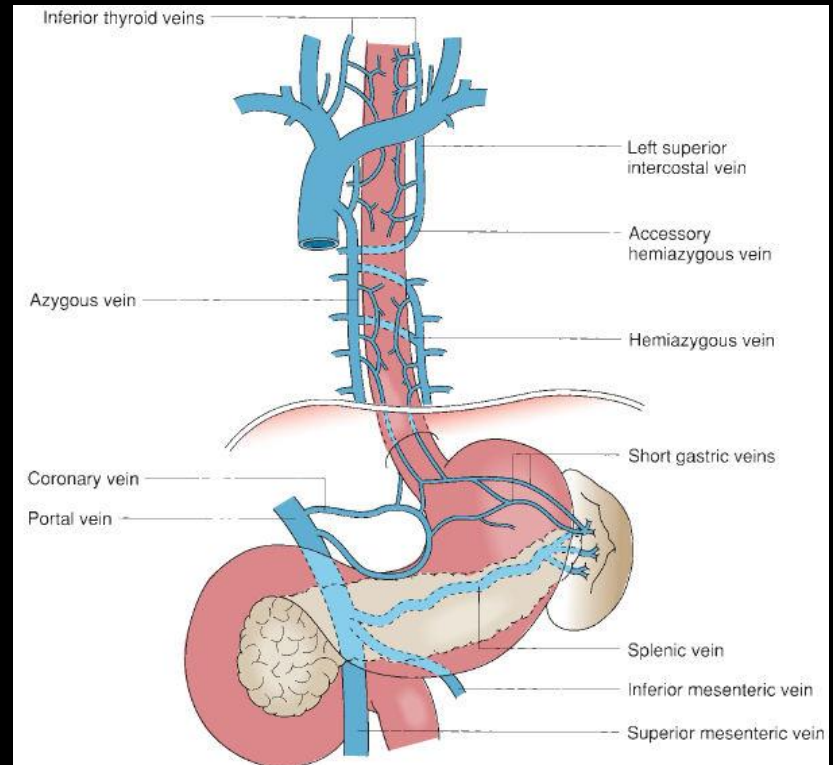
Bronchial & aortic branches

Left gastric & left inferior phrenic



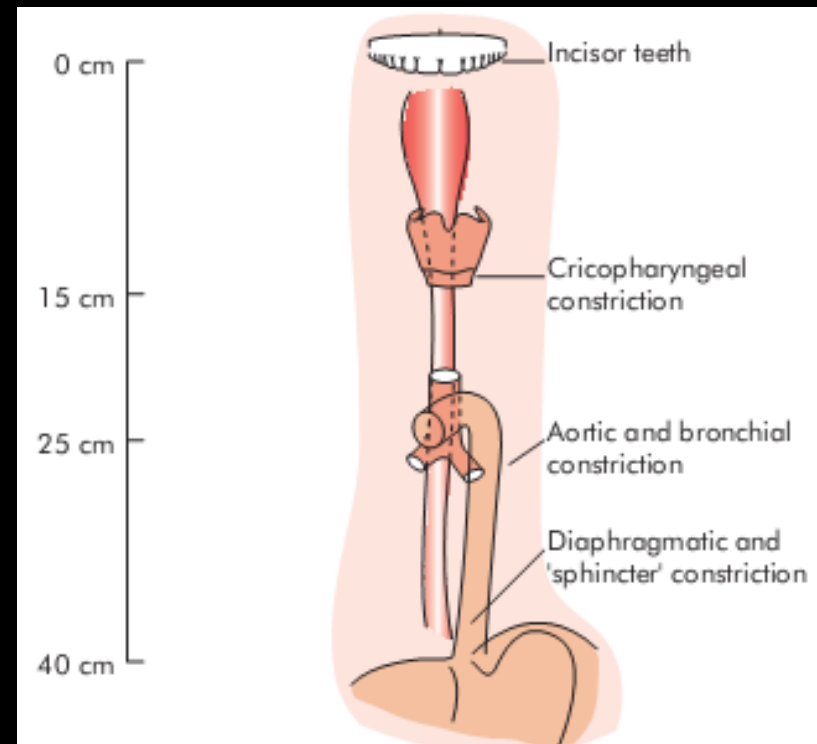
Venous Drainage

- Inferior thyroid & hypopharyngeal veins in neck
- Azygos, hemiazygos & intercostal veins in chest except lower part into left gastric vein
- Lower part site of communication with portal system so **varices's place**

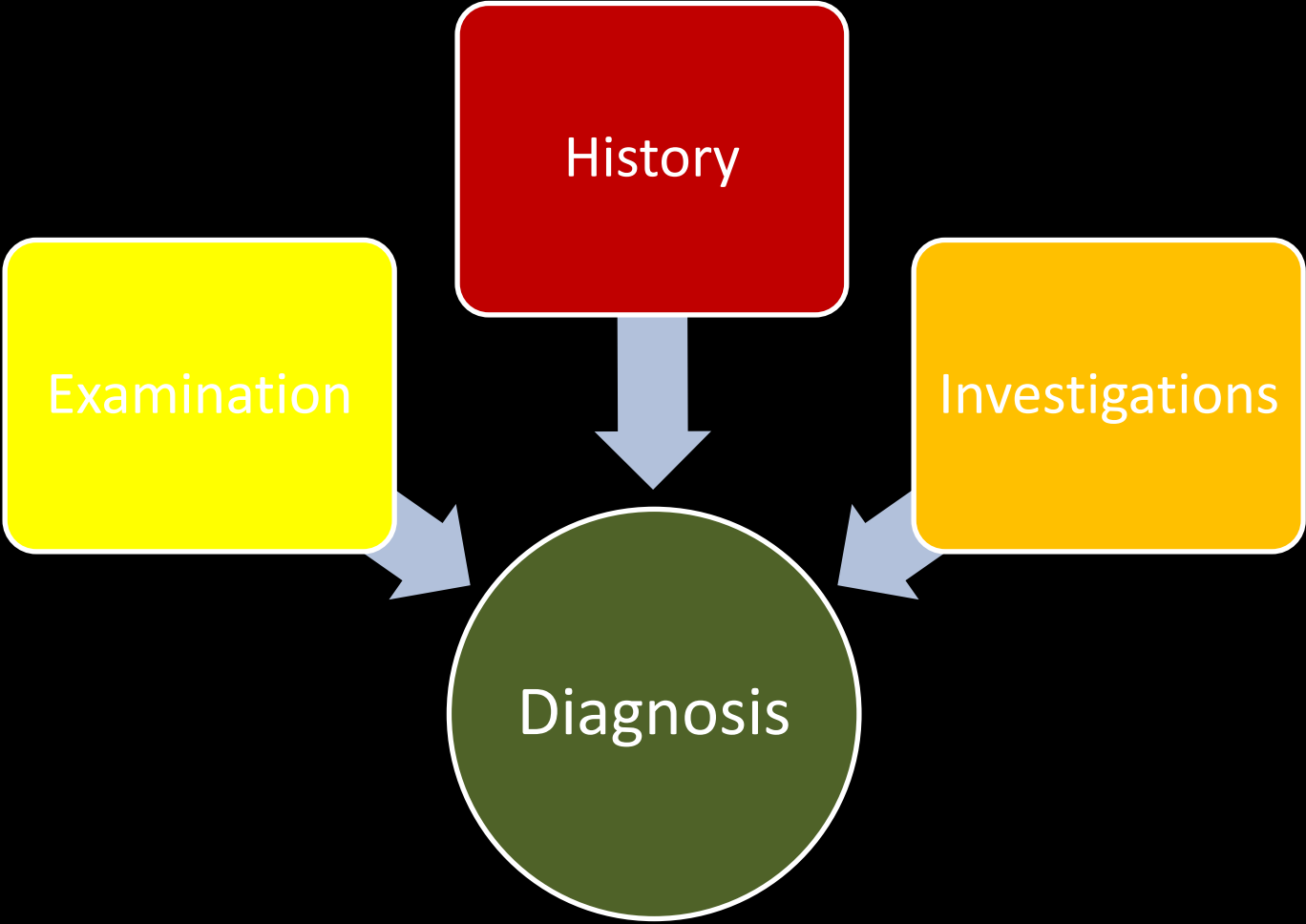


Endoscopic Appearance of Esophagus

- Starts just distal to cricopharyngeus muscle 15 cm from incisor teeth
- Mucosa pale & lacks lustre
- No. of narrowing ie at
- Cricopharyngeus
- Aortic arch crossing 22cm
-
- By left atrium at 27
- At D. Hiatus at 37-40cm



Management



History

- Dysphagia
- Globus
- Regurgitation
- Odynophagia
- Heartburn
- Chest pain
- Waterbrash
- Anaemia,
- Haematemesis
- chest pain

History

- Often typical presentation
- Atypical not infrequent
- Mistaken with cardiac & pulmonary diseases
- Very small no. psychoneurotic disorders

Dysphagia

- Difficulty in swallowing
- Mechanical or functional disorder
- Dysphagia for solids significant disease, due to mechanical or functional disorder
- Dysphagia for liquid means functional disorder
- In obstructive dysphagia first symptoms appears when 20% of lumen lost
- Pt usually presents when 50% lumen lost

Globus

- Means sensation of substernal lump after eating food
- When fasting called globus hystericus
- Neurotic symptom with emotional instability

Regurgitation

- Fluid from stomach or esophagus into throat
- Sour taste in mouth
- Often postural
- Often in supine position
- Straining , bending etc.
- Common symptom of GORD
- May be overflow phenomenon
- Aspiration pneumonia

Odynophagia

- Means pain mostly in substernal region
- Occurs after eating or drinking
- Means organic disease mostly oesophagitis
- Hot drinks
- Acid citric beverages
- Coffee
- Spicy food
- Radiation , viral or fungal infection

Heartburn

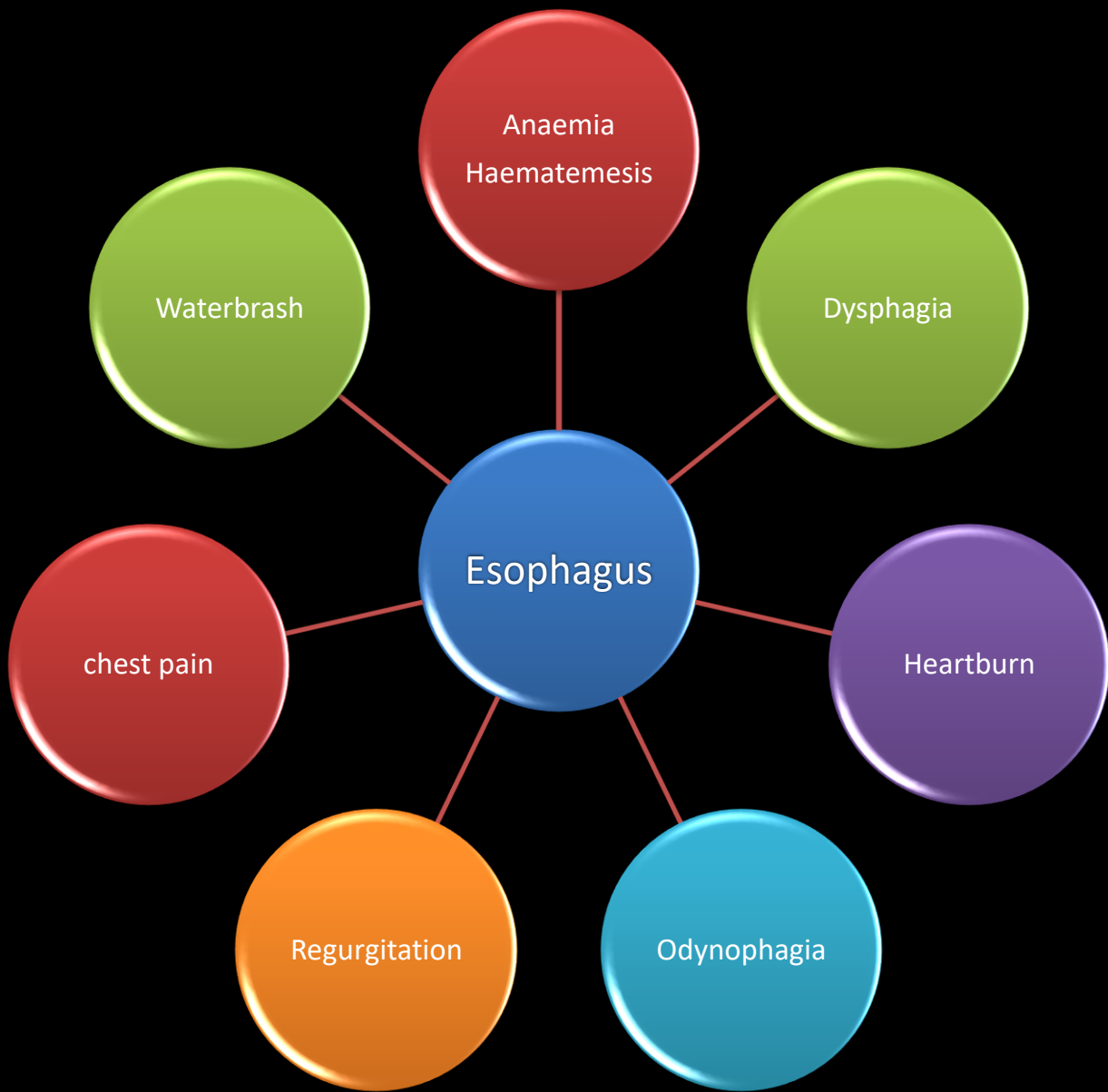
- 50% of population
- Usually relieved by antacid
- Due to reflux of gastric juice
- Often worsened by fatty meal & alcohol

Other Symptoms

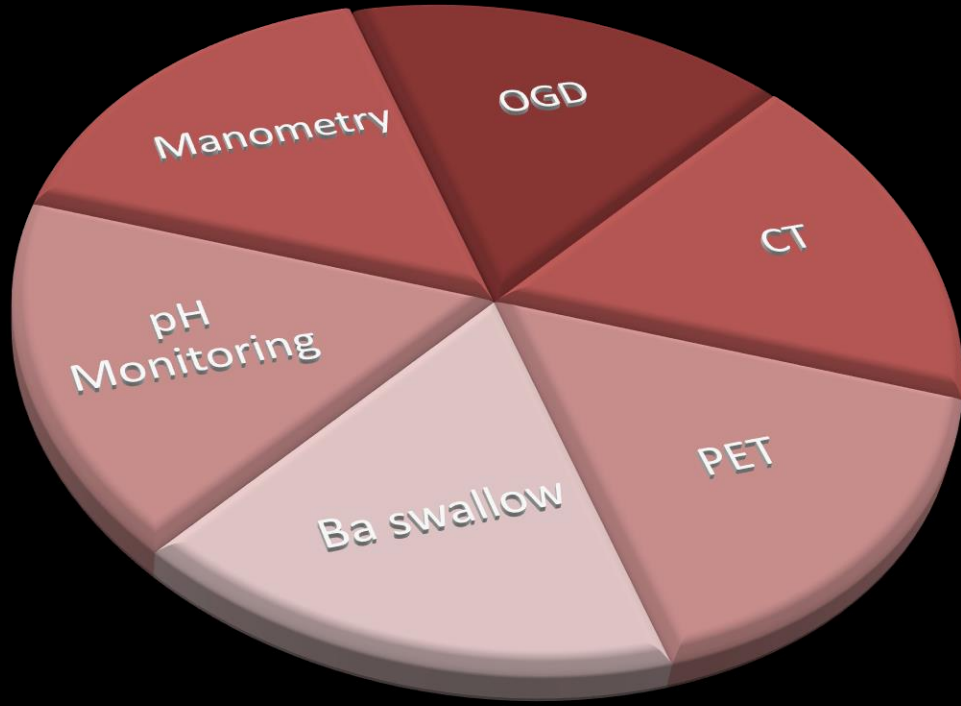
- Chest pain
- Coughing
- Waterbrash - excessive salivation
- Choking
- Anaemia
- Chest infection

Signs

- Mostly no signs found
- BUT
- Weight loss
- Pallor
- Swelling in neck
- Epigastric mass
- Signs on auscultation in chest
- Jaundice
- Haepatomegaly
- Tylosis

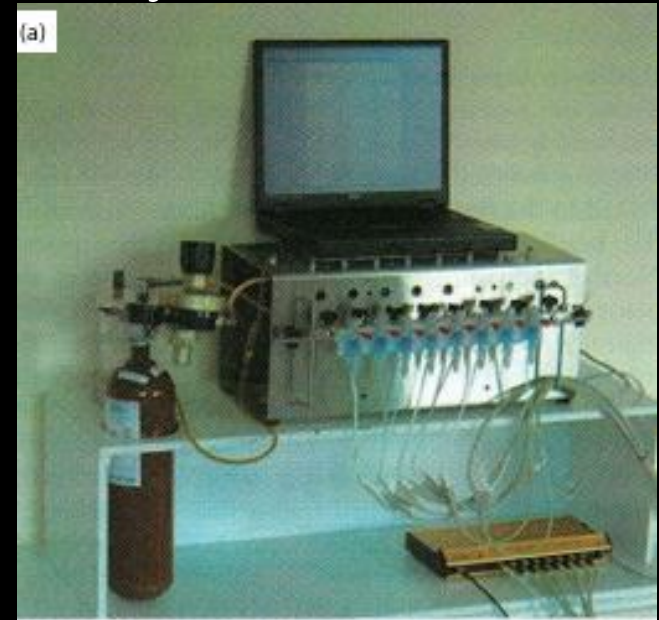


Investigations



Oesophageal Manometry

- Used to diagnose esophageal motility disorder
- Recording by passing multilumen catheter at different levels from esophagus to stomach



24 Hrs. pH Monitoring

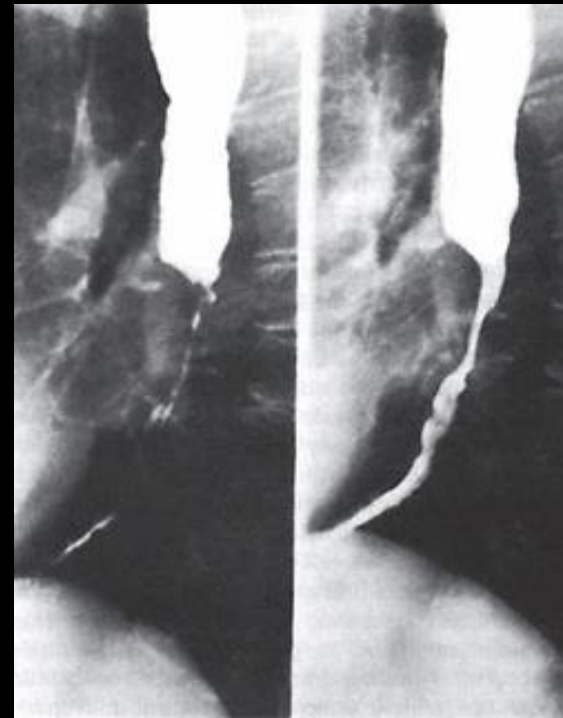
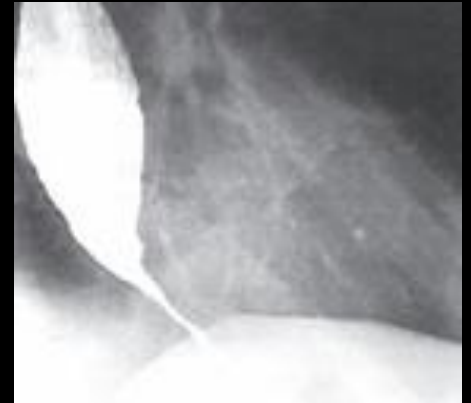
- Most common method for diagnosing GORD
- pH probe passed into esophagus
- connected with digital recorder
- 24pH recording and analyzed on computer



Figure 22.9 Portable recording device connected to a pH catheter with a surface electrode used for 24 hour pH monitoring.

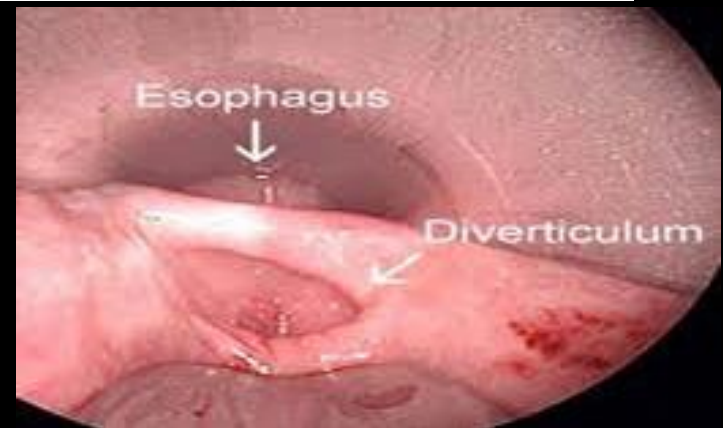
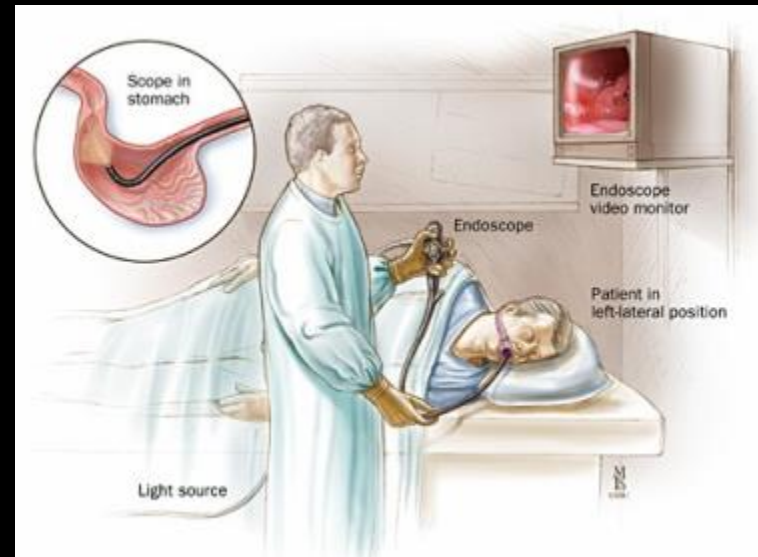
Contrast Radiology

- Overshadowed by OGD
- Useful in narrowing, space occupying lesion, anatomical distortion or abnormal motility
- Ba swallow inadequate in GORD
- Plain radiology – foreign body



Endoscopy (OGD)

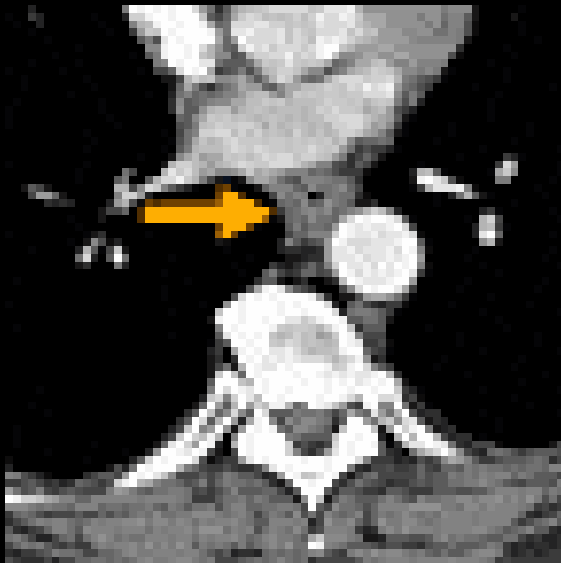
- Upper abdominal symptoms
- Dysphagia
- GORD
- Upper GI bleed
- Stenting
- Achalasia
- Biopsy & diagnosis



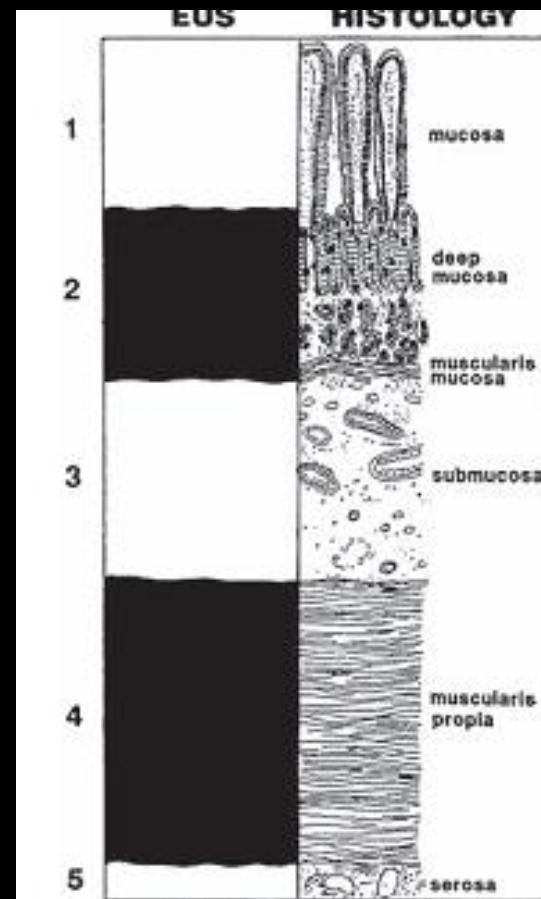
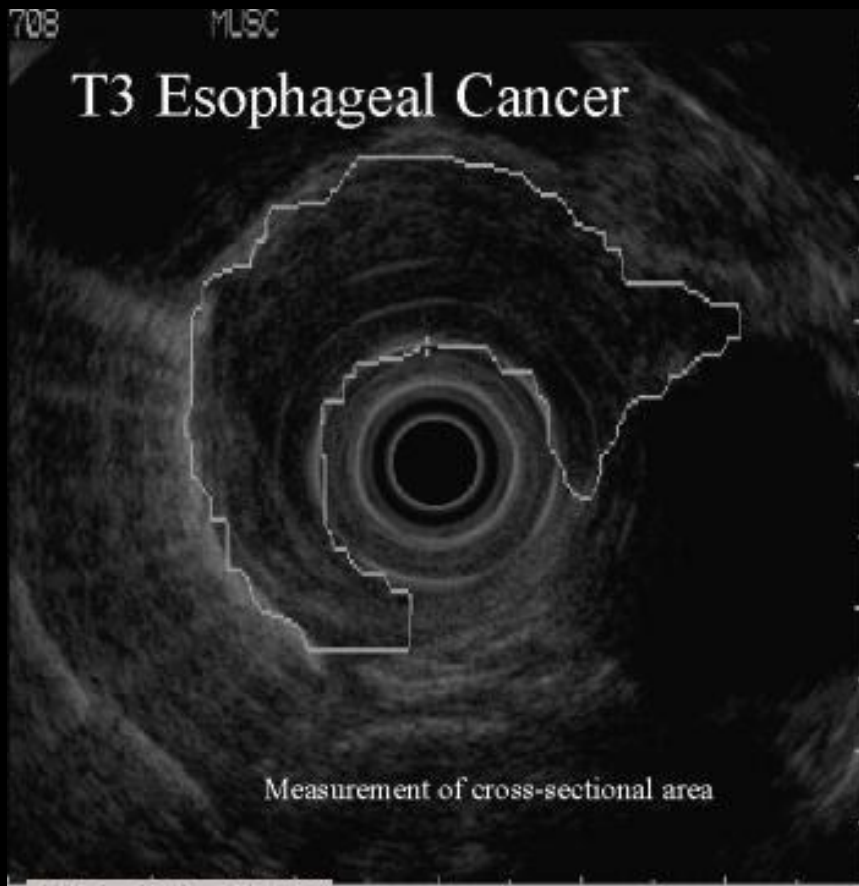
CT Scan

- Neoplasm
- Perforation

advanced adenocarcinoma
of the lower esophagus

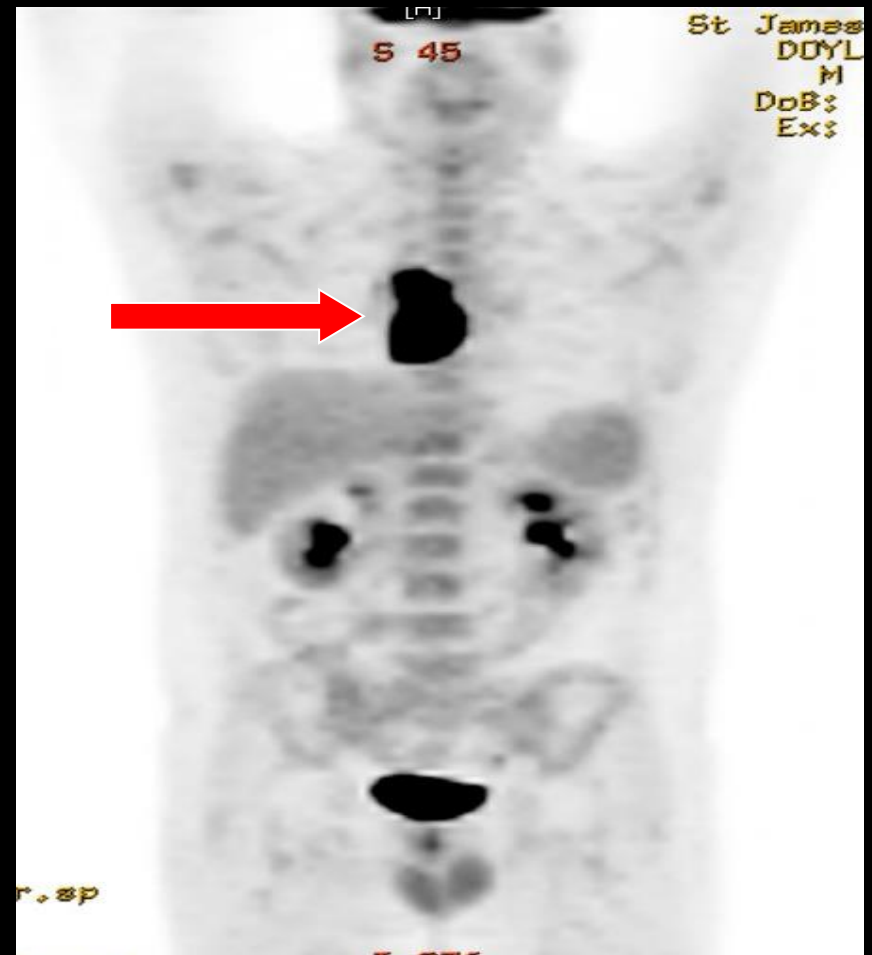


EUS



PET Scan

- PET CT – Arrow points to area of increased uptake (black) in distal oesophagus at the site of the tumour



???

naveed.jabbar@uos.edu.pk