Esophagus - Upper GI

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⇒ GERD

D→ 65 yr. old man with severe heart-burn refractory to any Rx for last 03 months. On endoscopy he was found to have less than 02cm of barret oesophagus.

- Causes of GERD
- Typical + Atypical symptoms
- Investigation
- Rx

★ causes of GERD :

★ ↑ Transient lower oesophageal Spinter relaxation

★ Mechanically defective lower oesophageal spinter

★ other – Pregnany
Obesity
Fat, alchohal, Large meal
Spicy diet
Smaking
Hiatal hernia.

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★ Typical symptom
↓
Heart burn
Regurgitation
Dysphagia

★ Atypical symptom
↓
Asthma
Chronic cough
Laryngitis
Sore throat
Non-cardiac chest pain.

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Investigations : O·D / B·D] PPI's

Endoscopy :

carried out in - Dysphagia
odynophagia
weight loss
Iron-deficiency anemia

Upper GI endoscopy :

To detect - Barret's oesophagus
Stricture
Esophageal adenocarcinoma

Esophageal Ph recording
+
impedence Test :

Extra-oseophageal symptom.

Contrast Radiography :

can show - hiatal hernia
Stricture
Ulcer of lower oseophagus

Rx :

Weight reduction
Head of bed- elevation by 6 inches
Elimination of acidic food + Fatty food
8- week course of PPI's
Before meal - Traditional delayed
released PPI's

Maintanance PPI Therapy
H_2 - receptor antagonists

surgical :

Open surgery
Laparoscopy
Fundoplication - Total
Partial.

↑ 25 times - ↑ Risk of developmental adenocarcinoma.

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⇒ Easophageal Perforation

D- 30 yr. Male underwent endoscopic balloon dilation for oesophageal stricture. Six hours after procedure, patient develop chest pain, SOB, Tachypnea, On chest x-ray patient has left sided plueral effusion & pneumomediastinum, cardiopulmonary upset.

- Diagnasis
- Causes
- Management.

Causes :

① - Medical instrumentation (65%)

② - Past-emetic 16% (Boerhav's syndrome)

③ - Trauma - Past operative
Penetraling chest injury
Blunt chest Trauma

④ - less common cause
Neoplasm
Ingestion of caustic materials.

Investigations :

Posteroroanterior chest x-ray
Lateral chest x ray
Upright Abdominal radiographs.

Findings :

Hydrothorax
Hydropneumothorax
Pneumothorax
Pneumomediastinum
Sub-cutaneous emphysema
Sub-diaphragmatic air.

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Treatment :

Conservative :-

Admission to ICU
Nill by Mouth
Broad spectrum antibiotics
IV-Fluids
Narcotic analgesics

Operative :

① Early presentation (04-06 hrs)

Direct primary repair

② Late presentation (After 24hrs)

* Tissue edematous + Friable
  ↓
  Bringing the proximal end of esophagus out of neck
  ↓
  Closing the distal end
  ↓
  Feeding jejunostomy for nutritional support
  ↓
  later on - esophagastomy + interposing of Colon / jejum to fill gap

* Extensive nerosis of oesophagus

Esophagectomy

* Perforated Abdominal oesophagus :

Upper mid-line laprotomy.

* Perforation due to malignancy :

Placement of covered self expanding metal stent

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⇒ Esophageal Carcinoma

Q→ 72 yr old man, long-standing smoker, complains of progressive dysphagia with food sticking behind his mid-sternum for 03 months. The problem started with solids but now has difficulty with liquids. He has lost his 14 kg weight.

Q→ 35 yr old female presents in OPD with complain of dysphagia for liquids since 02 months. There is history of some weight loss.

- Diagnosis
- Investigations
- Management
- causes
- D/D

→ Esophageal carcinoma.

→ Investigations :

① → Endoscopy → Direct visualization
Histology specimen

② → CT scan, chest
Abdomin pelvis → Local extent
Invasion surroundings
Mediastinal + Abdominal
Lymphnode involvement

③ → Endoscopic ultrasound

④ → Bronchoscopy - For signs of unresectability
↓
Impingement + Invasion of
main airway.

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-5- Laproscopy - For peritoneal disease

6- PET (Positron emission Tomography) using (18 F Flourodeoxyglucose)

Staging :

T-staging

T_1 - Tumor invades - Lamina propria
Muscularis mucosa
submucosa.

T_{1a} - Tumor invades - Lamina propria
Muscularis mucosa.

T_{1b} - Tumor invades - Sub-mucosa

T_2 - Tumor invades - Muscularis propria

T_3 - Tumor invades adventitia

T_4 - Tumor invades adjacent structures.

N-staging

No - No regional lymph nodes involvement

N_1 - Regional lymph node involvement.

M-staging

Mo - No distant metastasis

M_1 - Distant metastasis.

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Rx :-

① - High grade dysplasia or sub-centimetric nodule :-

Endoscopic mucosal resection

② - T_{1a}, N_0 :

Esophagectomy

③ - T_{1b}, N_0, T_2, N_0 :

Esophagectomy + Local Lymphadenectomy.

④ - T_3, N_x :

- Esophagectomy
- Lymphadenectomy
- RadioTherapy

⑤ - T_4 - Palliative

Stenting
Laser
Ethanal injection
Chemotherapy
RadioTherapy.

Q - Methods of Esophagectomy D/D

Minimal invasive esophagectomy
Transhiatal "
Salvage "
Two phase operation
Three phase operation.

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⇒ Achalasia

Q- 50 yr. old female presents in OPD with C/O dysphagia more for liquids.

D/Diagnosis
Investigation
Rx

① - D/Diagnosis :

Achlasia
Carcinoma oesophagus
Stricture

② - Investigations :

Barium Swallow :

Birds beak appearence

Manometry :

Hypertensive lower asophageal sphinter
No peristalsis in the body of osophagus.

Endoscopy :

To rule out - stricture
- malignancy.

③ - Rx :

Medical :

CA - channel blocker - Nifidipine
- Nitrates

Surgical or others :

Heller Myotomy
Endoscopic Balloon dilation.
Botulinum Toxin.

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D/D Dysphagia :

Foreign body
Stricture
Achalasia
Diffuse spasm
Diverticula.

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