

Notes :

-Esophagus:

- ✓ Hollow organ
- ✓ Like a tube with central lumen
- ✓ Extends from epiglottis toward the GEJ
- ✓ GES> physiological sphincter has thick muscles
- ✓ The normal lining epi is stratified squamous epi non keratinized
- ✓ Mucosa > submucosa> muscularis > adventitia layer(C.T)

-Esophageal Diseases:

- ✓ **1. Obstruction: mechanical or functional.**
 - Mechanical :
 - congenital (immediately after birth)
 - acquired (secondary to something else)
 - EXs: Atresia * Fistulas *Duplications (two lumens) * Agenesis (no esophagus) (v rare)
 - *Stenosis.
 - Functional : due to problems in mortality and innervation so difficulty in propelling the food thus a state of obstruction (most commonly achalasia)
- ✓ **2. vascular diseases: varices.**
- ✓ **3. Inflammation: esophagitis.**
- ✓ **4. Tumours (Adenocarcinoma ,SCC(squamous cell carcinoma)**

-Atresia:

Thin, noncanalized cord replaces a segment of esophagus

Its like the esophagus is converted to tube without central lumen (noncanalized and its closed)

Most common location: the tracheal bifurcation

Sometimes associated fistula(opening between two organs)

So:

Atresia alone

Atresia with proximal fistula

Atresia with distal fistula

Atresia with double fistula

Two important:

Occurs Shortly after birth: regurgitation during feeding

Tx: prompt surgical correction (rejoin).

Complications : aspiration >> so Suffocation and that can leads to Pneumonia

+since regurgitation and vomiting so dehydration thus:

Severe fluid and electrolyte imbalances

Stenosis:

- Acquired>>>Congenital.
- thickening of the submucosa and thinning in muscularis
- fibrosis due to inflammation and scarring causing narrowing in the lumen
- **fibrosis from>> Chronic GERD. * Irradiation *Ingestion of caustic agents**
- **so inflaamtion >> repair >> fibrosis**
- Progressive dysphagia + Difficulty eating solids that progresses to problems with liquids.

Achalasia:

- **Triad>>**
 - 1-incomplete LES relaxation**
 - 2-hypertonia of LES**
 - 3-esophageal aperistalsis:**

No peristaltic movement>> the food will be propel by the gravity>> reaching the GEJ>>not entering the stomach>> accumulation in the esophagus, ultimately >> dilation of the esophagus
- **Primary is much much more common than secondary**
 - ✓ **Primary >> idiopathic and can be due to** Failure of distal esophageal inhibitory neurons (since its inhibitory so it should cause relaxation but since its failed so no relaxation)
 - ✓ **Secondary>> Degenerative changes in neural innervation+**

One of the causes >>Chagas disease, parasitic infection by Trypanosoma cruzi infection>>destruction of the myenteric plexus>> failure of LES relaxation>> esophageal dilatation thus achalasia

Clinical presentation : Difficulty in swallowing / Regurgitation / Sometimes chest pain.

Achalasia-like disease

- ✓ **Achalasia = triad**
- ✓ **Not all the triads present so its Achalasia like**
- ✓ Scenarios: Diabetic autonomic neuropathy / Infiltrative disorders (malignancy, amyloidosis, or sarcoidosis/ Dorsal motor nuclei lesions (produced by polio or surgical ablation).

Vascular diseases: Esophageal Varices

Tortuous dilated veins within the submucosa of the distal esophagus and proximal stomach with intact mucosa

Dilated veins>>maybe ruptured>>catastrophic bleeding>>hemorrhage and massive hematemesis>> hypovolemia>>shock

Common in patient with portal hypertension (Cirrhosis is most common cause .+ Hepatic schistosomiasis 2 nd most common worldwide)