Patho 2 (Diseases of the esophagus 2)

1- REFLUX ESOPHAGITIS :

Reflux of gastric contents into the lower esophagus sphincter , its consider the most common cause of esophagitis.

the normal lining of esophagus is Squamous epithelium it is sensitive to acids so when reflux of gastric content to it , it causes irritation.
recurrent reflux. → Decreases protective factors : 1- mucous and bicarbonate.
2- closed sphincter: → anything that causes sphincter to relax will cause symptoms (heartburn) .

PATHOGENESIS :

1- Decrease lower esophageal sphincter tone → Alcohol. Tobaco. CNS depressent (Drugs).

2- Increase abdominal pressure: Ascites. obesity. Pregnancy.

3- Idiopathic:

MORPHOLOGY :

Macroscopy (endoscopy): Depends on severity.

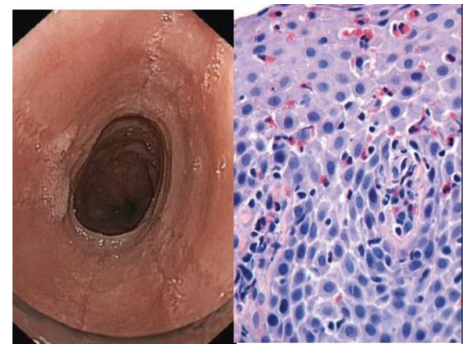
Microscopy :
- eosinophils (early stage) .
- Eosinophils+ neutrophils (more severe cases) .
- Basal zone hyperplasia
- Elongation of lamina propria papilla

Clinical Features:

Most common over age of 40 years + Heartburn + dysphagia + Regurgitation of sour-tasting gastric contents+ rarely (chest pain similar to myocardial infarction) .
Treatment: PPI .

Complication : دم من تحت ومن فوق (Hematemesis, Melena) .
صار معي قرحة بسبب الميتا (metaplasia: **Barrett esophagus** , Esophageal ulceration) .

2- Eosinophilic Esophagitis:



Chronic immune mediated ,(**presence of eosinophils**) نفس الي قبله ومبين من اسمه كمان .

Symptoms :
-Food impaction and dysphagia in adults.
-Feeding intolerance or GERD-like symptoms in children.
- Regurgitation high amount of milk in infant .

Endoscopy:
constricted rings in the upper and middle esophagus (لاحظ انه بعيد عن ال sphincter لأنه ما اله علاقه بال reflux)
Microscopic:
numerous eosinophils(more than eosinophils in GRED) طبعًا من اسم المرض مبين

لاحظ الاختلافات بينهم في المكان وعدد ال eosinophils وفعالية ال PPI

TREATMENT:
Topical or systemic corticosteroids (زي أي مرض مناعة مفرطة)+ Dietary restrictions (cow milk and soy products)
refractory to PPI ما يستجيبوا عليه ولا بتحسنوا

3- Barrett Esophagus :

Complication of chronic GERD (only10%) . males >>Females , 40-60 yrs(الرجال في البارات أكثر)
Metaplasia→dysplasia→adenocarcinoma. (squamous epithelium can not handle acidity transforms into columnar epithelium that is more resistant to acid.

Endoscopy:
red tongues extending upward from the GEJ .

Histology: Gastric or intestinal metaplasia.(should be written in history)
Presence of goblet cells (عشان تحمي المريء)
Dysplasia : low-grade or high-grade.
Intramucosal carcinoma: invasion into the lamina propria.

High grade dysplasia & intramucosal carcinoma needs interventions (surgical resection for example)

4- ESOPHAGEAL TUMORS: "مقارنة في جدول شوفه"

A... Adenocarcinoma:

→ From Barrett —> dysplasia —> adenocarcinoma (accumulation of mutations specially in TP53).

MORPHOLOGY:
-Distal third :(lower part of the esophagus)
-Early lesion : flat or raised patches
-Later lesion: exophytic (project to lumen large mass) + infiltrative masses (infiltrate the wall of esophagus).

Clinical Features
Pain or difficulty swallowing (because of mass in esophagus) Progressive weight loss
Chest pain
Vomiting.

Advanced stage at diagnosis: 5-year survival <25%.
Early stage: 5-year survival 80%

may delay diagnosed because symptoms need large mass to appear late

B... Squamous Cell Carcinoma:

Pathogenesis:
In western countries: alcohol and tobacco use.
Other areas: polycyclic hydrocarbons, nitrosamines(مركبات كيميائية) + fungus- contaminated foods + HPV infection implemented in high risk regions.

Morphology:
Middle third (50% of cases)
Polypoid, ulcerated or infiltrative + Wall thickening + lumen narrowing + Its can Invade surrounding structures.

→ squamous dysplasia → carcinoma in situ → Well to moderately differentiated invasive SCC → Intramural tumor nodules (you can see the tumour in the muscle) .

Lymph node metastases at the beginning:
Upper 1/3 (location of the tumor): cervical lymph nodes.
Middle 1/3: mediastinal, paratracheal and tracheobronchial lymph nodes.
Lower 1/3: gastric and celiac lymph nodes.

يعني لو لقيت انتفاخ بأحد الغدد الليمفاوية هاي بدك تعرف المصدر المحتمل للالتهاب او الورم
مهم جدًا!!!!!!

<u>Clinical Features:</u>
Most important one : Obstruction Weight loss.
Hemorrhage and sepsis if ulcerated.
Impaired nutrition and tumor associated **cachexia.**

5-year survival < 9% (bad prognosis)

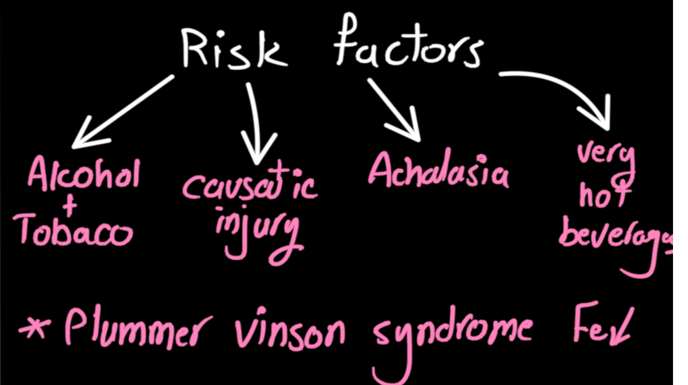
Adenocarcinoma

* on the rise → ≈ 50% of cases
* 7:1 More in male.
* Risk factors

* Distal third.
* Form (Glands + Mucin).

Squamous. c. carcinoma

* Most common worldwide.
* 4:1 more in male.



* Middle third.
* No Glands + very ugly mucin