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Upper GI Surgery according to Langcake

The mighty OESOPHAGUS

- roughly 20-25 cm long
- begins at CRICOPHARYNGEUS muscle
- upper 1/3rd = skeletal voluntary muscle
- lower 2/3rds = smooth involuntary muscle
- LOWER OESOPHAGEAL SPHINCTER is assisted by gastric bend and the CRURA (appendages of the diaphragm) which constrict it in response to increasing abdominal pressure

DYSPHAGIA: difficulty swallowing

Need to differentiate: oropharyngeal vs. oesophageal.

OROPHARYNGEAL:

- "food stuck" right after swallowing"
- coughing, choking, drooling,
- pain localises to the throat

Odynophagia = PAIN

OESOPHAGEAL: either dysmotility or obstruction (benign or malignant)

ASK: WHAT cant you swallow?

- Solids AND liquids = motility disorder
- Solids, THEN liquids = CANCER

MOTILITY DISORDERS: many causes, eg. too little (scleroderma, severe GORD) or too much (diffuse oesophageal spasm, achalasia, spastic oesophagus)

BENIGN OBSTRUCTIONS:

Strictures, rings, webs, achalasia, … radiation injury

ACHALASIA: absence of normal relaxation @ lower oesophageal sphincter

Increased resting tone = absence of peristalsis

This causes dilation proximally, and regurgitation of rancid food, aspiration pneumonia…

On chest X-ray with barium swallow, there is a **"beak-like" appearance**

MANAGEMENT: either relax the sphincter with botox / nitrates, or…

"Bouginage"= CRAM a tube through the sphincter, tearing it.

"**Heller's Myotomy**" = cut the muscle(may induce reflux, so one must invaginate some oesophagus into the stomach to prevent reflux)

RINGS AND WEBS:

Thin membranes and fibrous tissue growths partially occluding the lumen

MAJOR SYMPTOM: swallowing of LARGE OBJECTS is difficult (" STEAKHOUSE SYNDROME")

MANAGEMENT OF BENIGN STRICTURES involves either Balloonoplasty, steroid injections or surgery.

HOWEVER proton pump inhibitors suffice most of the time

MALIGNANT OBSTRUCTIONS:

Risk factors for oesophageal cancer: smoking, drinking, and family.

Either adenocarcinoma or squamous cell carcinoma.

squamous carcinoma not so scary – very radiosensitive

Constant exposure to acid → mucosal metaplasia → Barretts Oesophagitis

→ will eventually turn into the dread radio-insensitive ADENOCARCINOMA

!! which spreads quickly through the lymphatics → have to do surgery

IVOR LEWIS OESOPHAGECTOMY: the longest, most exciting upper GI surgery

=remove part of oesophagus from thorax, remodel stomach and stretch it up to reconnect to oesophageal stump.

VERY ELDERLY PATIENT? Could this be a ZENKER'S DIVERTICULUM?

→ this is an aneurysm-like outpouching of the oesophagus where food can get stuck.

Diverticulae in general are usually asymptomatic and may never require treatment

Gastro-Oesophageal Reflux Disease (GORD)

30% of people in their lifetime; often associated with hiatus hernia

important cause of chronic cough

causes inflammatory oesophagitis immediately proximal to the sphincter

response to this chronic injury is BARRETTS OESOPHAGUS: pre-cancerous metaplasia

- gotta keep an eye on it.

Serious Upper GI haemorrhage

Vomiting masses of frank blood? Its either a Mallory Weiss tear or bleeding varices

Usually brought on by much coughing or vomiting. Ask re. alcohol.
Managed by prophylactic propanolol, cauterisation and "banding"

Variceal bleeding is associated with a very high mortality.

The STOMACH:

Midline structure; thus **PAIN RADIATES TO BACK**
(NOT around the flank)

there may have been…

- Hematemesis
- Melena
- Fatigue, anaemia, SOB, angina
- Weight loss
- **Vomiting early after a meal = emptying problem**
- **Early satiety (!! →? ITS CANCER !!)**

BENIGN ISSUES:

Ulcers → managed by endoscopic clipping, cauterisation or embolisation

Burning epigastric pain 1.5 to 3 hrs after meals
→ Wakes patient up at night

- **exacerbated by fasting**
- **improved with meals**
- **improved with antacids**

Peptic Ulcer may be felt as a **gnawing pain in the chest, back, mid-abdomen, or either upper quadrant**

GASTRITIS is made WORSE WITH FOOD

BLACK STOOLS

PERFORATION: "chemical " non-infective peritonitis
= no systemic signs of peritonitis
Almost always occurs in anterior wall

Delayed emptying (diabetes, parkinsons – neuro issue**)**
Acute gastric dilatation (due to pyloric sphincter problem**)**

MALIGNANCY:

Adenocarcinoma, most commonly
Early satiety, outrageous belching, vague abdominal fullness, obstructive symptoms
BIG Lymph node in left supraclavicular region
Sister Mary Joseph nodule - a nodule in the umbilicus; implies mesenteric mets.
May bleed, cause reflux, and typical cancer stuff (weight loss, loss of appetite…)