Gastric outlet obstruction & biliary obstruction in pancreatic cancer.

Claire Bowman. Upper gastrointestinal cancer nurse specialist

Statistics

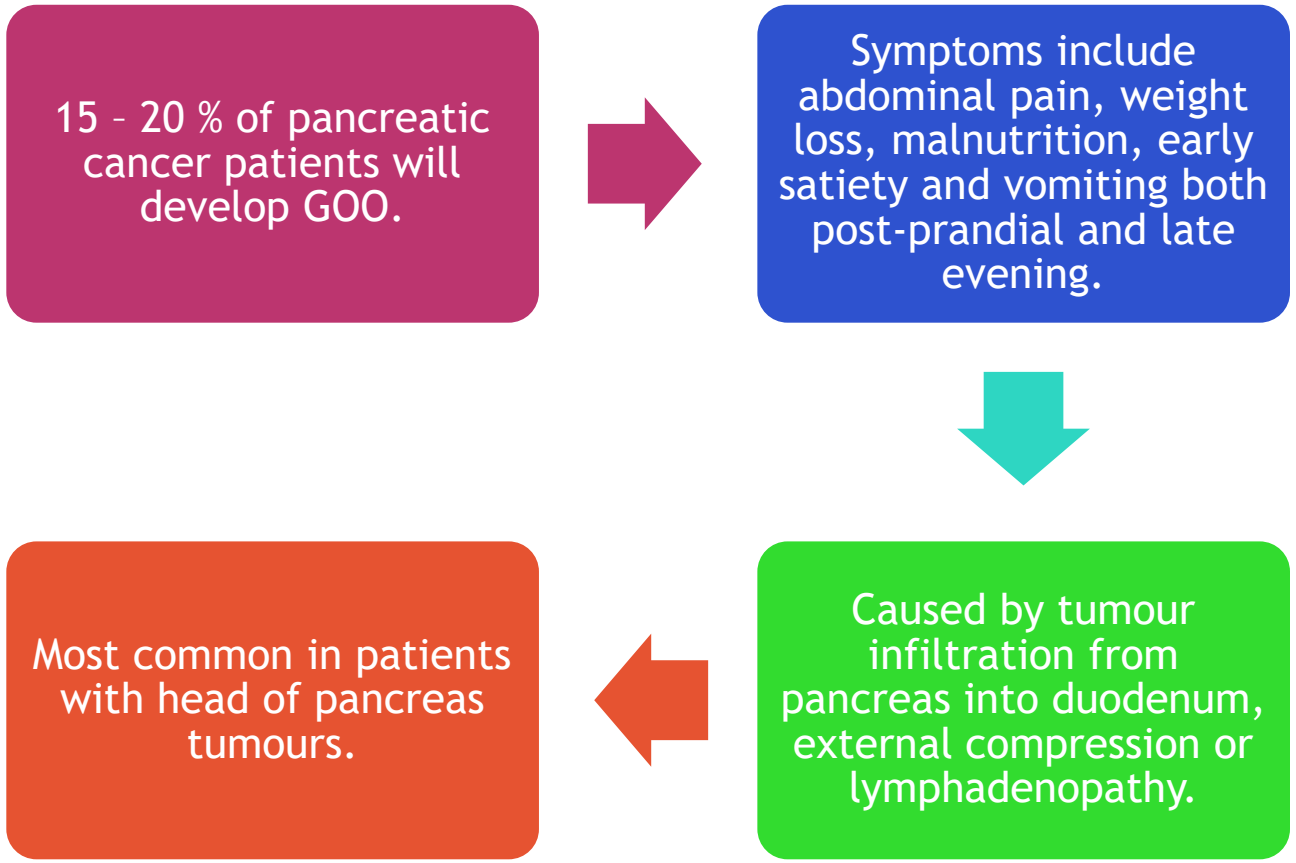
- No change in survival rates since 1970s.
- Only 10 – 15 % of patients are eligible for surgery.
- Only 10% of patients diagnosed with advanced disease will survive for over 1 year.
- Incidence of pancreatic cancer in the UK is predicted to rise by 5% between 2023 – 2025.

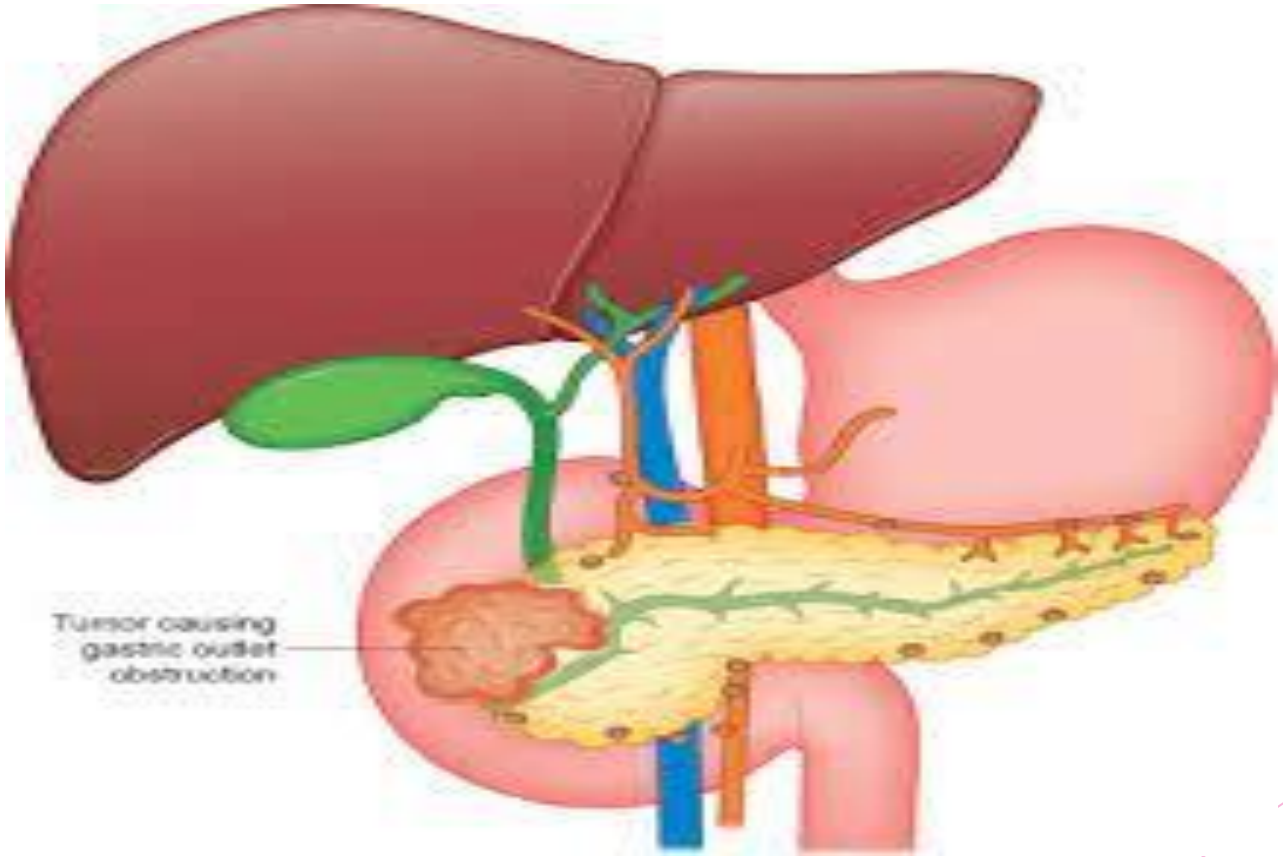
Background

WORK IN A LOCAL DISTRICT GENERAL HOSPITAL.

CARE FOR MAINLY PALLIATIVE PATIENTS.

Gastric outlet obstruction (GOO)




Tumor causing
gastric outlet
obstruction

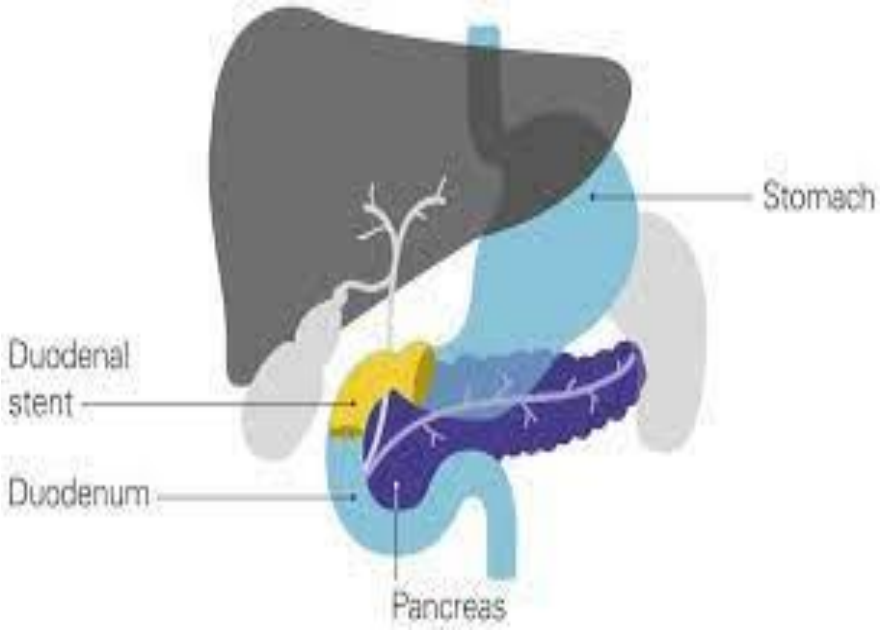
Diagnosis

CT scan / oral contrast study

Endoscopy

Treatment

Endoscopically inserted self-expanding metal duodenal stent



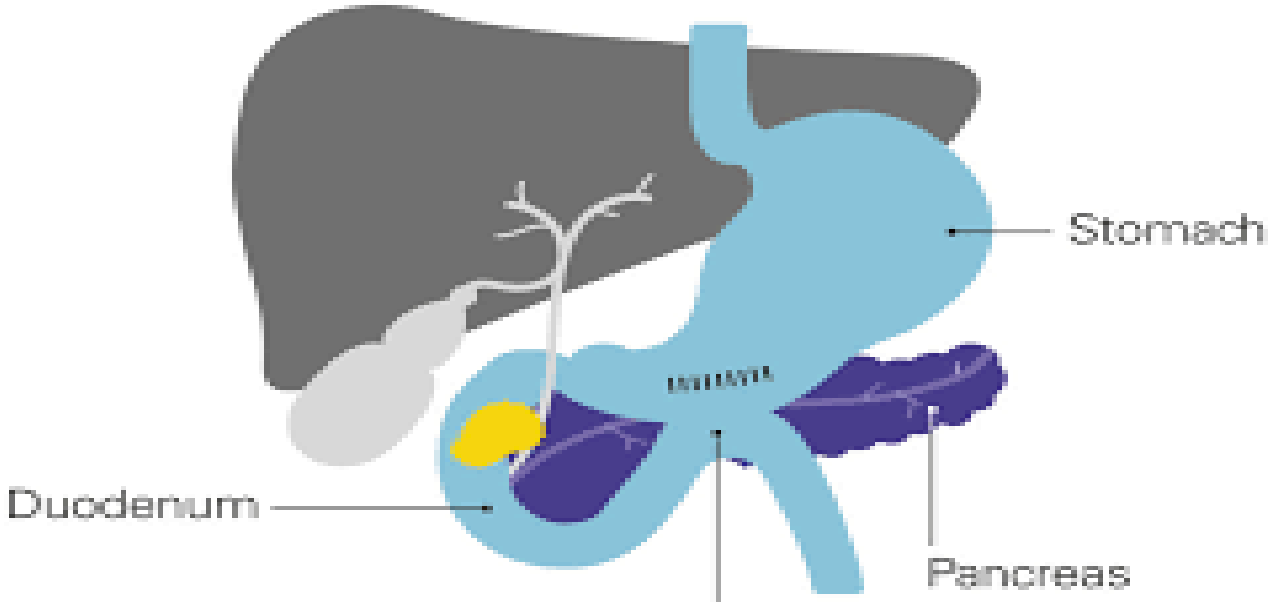
Benefits

- Day case procedure,
- Quick recovery,
- Highly effective.

Limitations

- Short life span,
- Repeat procedures / replacement,
- Food blockages.

Bypass surgery
(Gastrojejunostomy)



The stomach is connected to the small intestines so food can pass through

Benefits

- Longer lasting than SEMS.
- More appropriate in fitter patients with less comorbidities and better performance status.
- No food blockages.

Limitations

- Requires hospital admission,
- General anaesthetic,
- Not suitable if peritoneal disease,
- Post operative complications.. VTE, infections, ileus, non –healing wounds,
- Delay chemotherapy treatments commencing.

Venting gastrostomy / Nasogastric tube

Can be used if neither stent or bypass are appropriate or possible.

Can be used for delayed gastric emptying without duodenal obstruction which is present in up to 60% of patients.

Does not allow patient to eat solid diet.

Case study

64-year-old male with T4 N1 M1 HOP tumour with liver metastases.

Had 4 cycles of palliative chemotherapy last given 7 days ago (previously well tolerated). Last CT 8 weeks prior shown stable disease.

New complaint of vomiting most days.

Anti-emetics (cyclizine and ondansetron) ineffective.

POLL
What do you think is the working diagnosis ?

- Post chemotherapy related vomiting
- Delayed gastric emptying
- Gastric outlet obstruction
- Gastroenteritis

Further questioning……

Vomiting has started 3-4 weeks ago and now increasing in frequency.

Large volume vomits mostly undigested food late in the evenings.

No loss of appetite but losing weight (5kg in 2 weeks).

POLL
What investigation would you request?

- CT chest abdomen & pelvis
- Water soluble contrast swallow
- PET CT
- Chest Xray

Working diagnosis of GOO or delayed gastric emptying.

Commence a trial of prokinetic anti emetic (metoclopramide). Advise a soft / sloppy diet.

Water-soluble contrast swallow performed. This shown partial duodenal obstruction with distended food filled stomach consistent with GOO.

Treatment

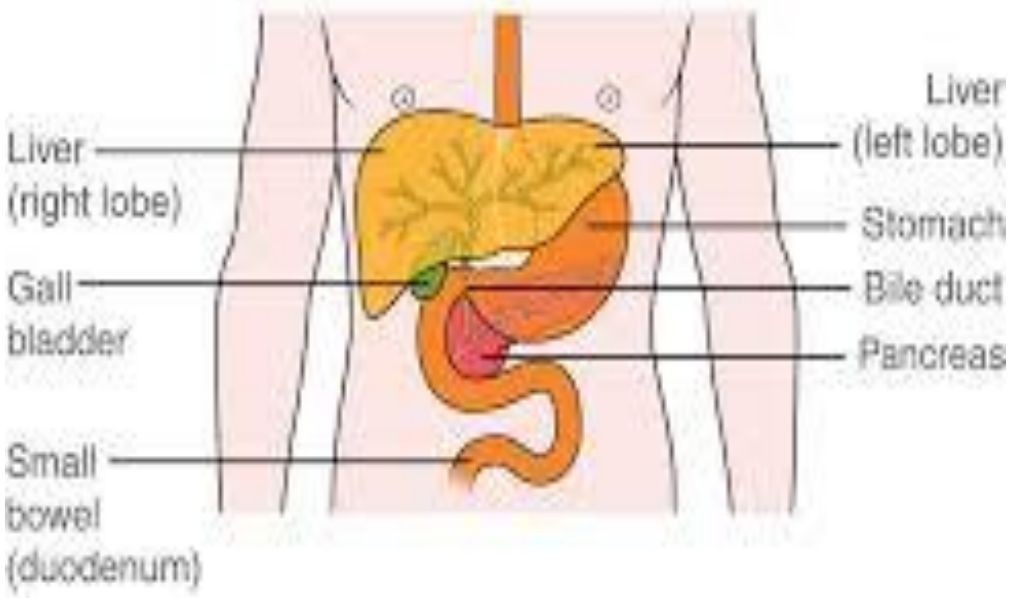
Discussion with patient who agreed to OGD +/- duodenal stent.

Admitted to ward for NGT & IVI 24 hours for gastric decompression.

OGD performed and concurred that pancreatic tumour had invaded duodenum, stent successfully inserted. Discharged home next day.

1-week later vomiting had stopped and eating a soft diet.

Biliary obstruction



What is biliary obstruction?

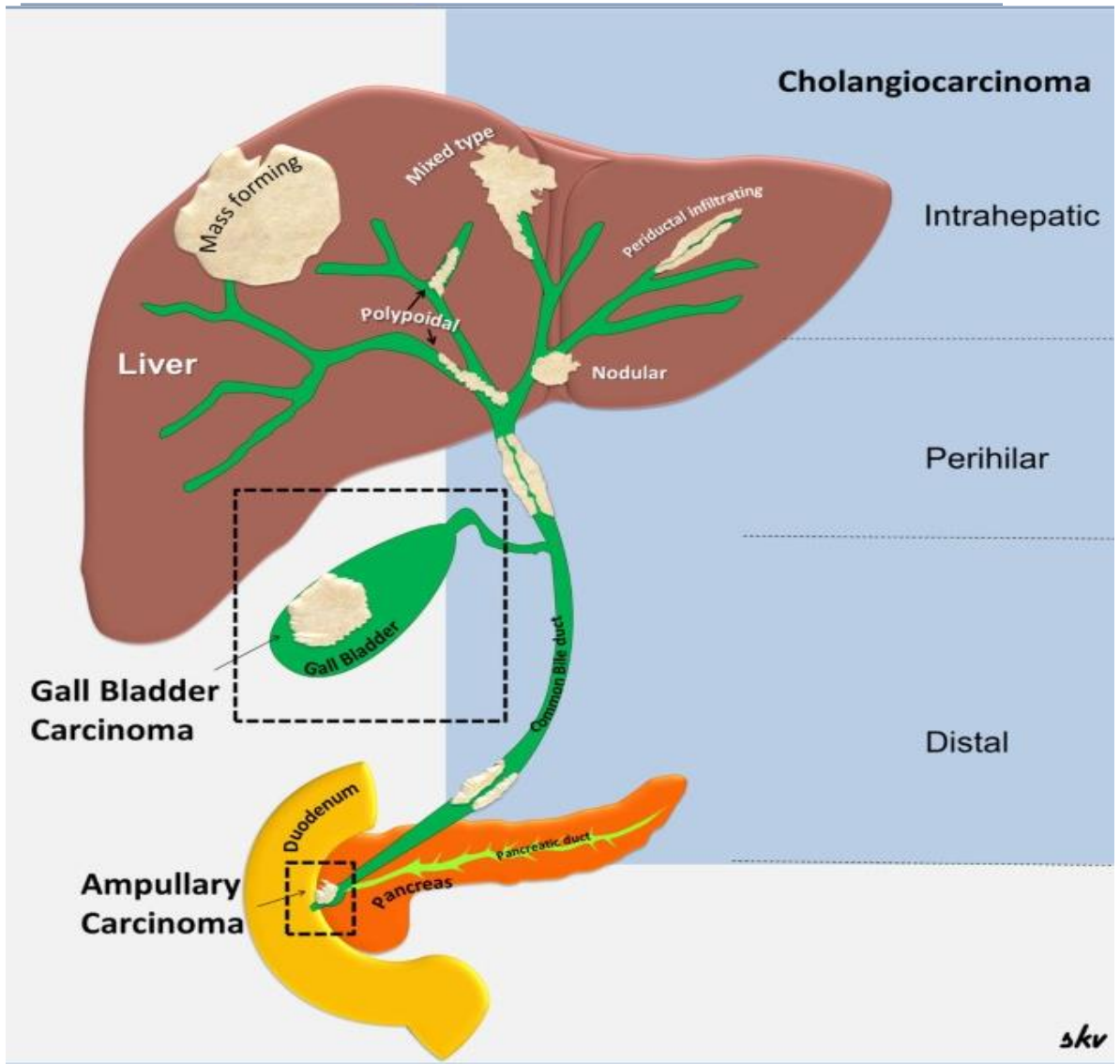
The impairment of bile flow from the liver to the small intestine due to blockage of the bile duct. Prevention of bile flow causes build up of bilirubin resulting in jaundice.

Jaundice

Associated with poorer prognosis if not relieved.

Unable to have palliative chemotherapy.

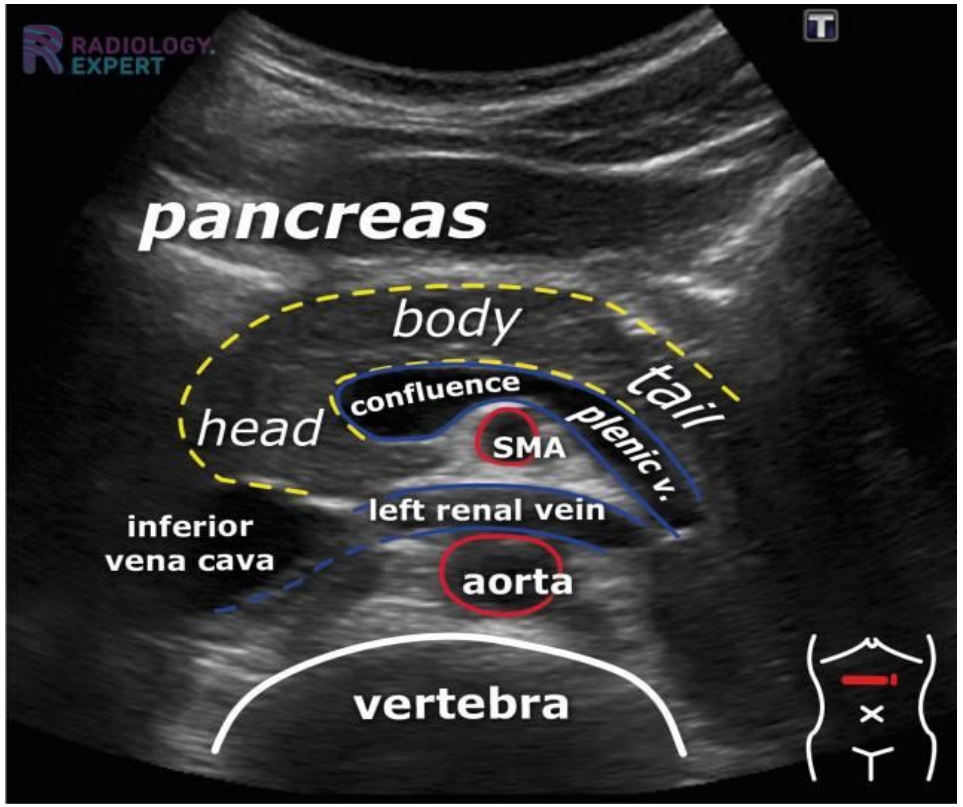
Symptom burden :- puritis, nausea, anorexia and weight loss.



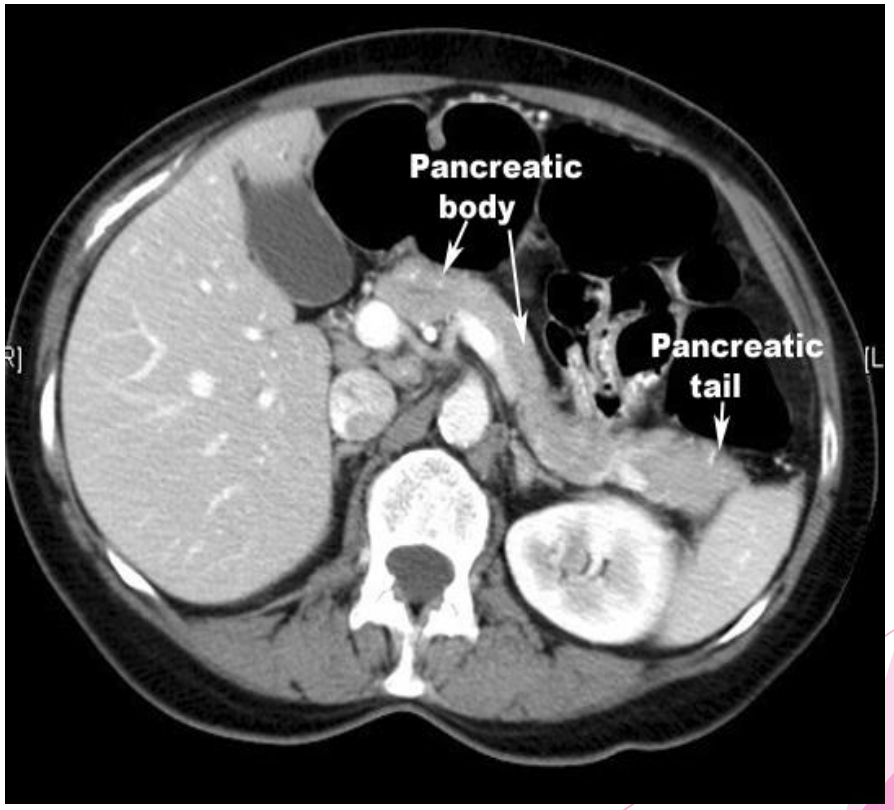
- Common bile duct or distal bile duct obstruction is common in pancreatic tumours (most common with HOP & uncinate tumours), ampullary tumours and distal cholangiocarcinoma's.
- Hepatic duct or proximal bile duct / hilar obstruction is more common in cholangiocarcinoma (Klatskin tumour), gallbladder cancer, lymph node compression or from metastases of pancreatic or bile duct cancer.

Diagnosis / Staging important to distinguish between obstruction and metastatic burden.

Ultrasound



CT scan



Diagnosis / staging contd..

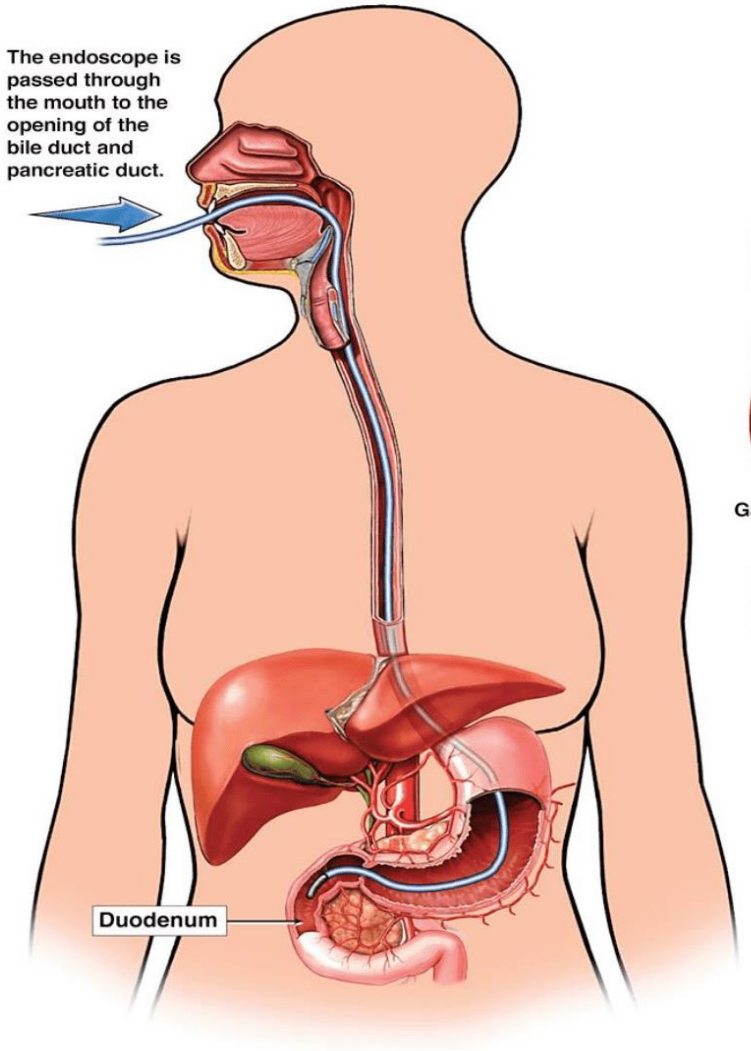
MRCP,

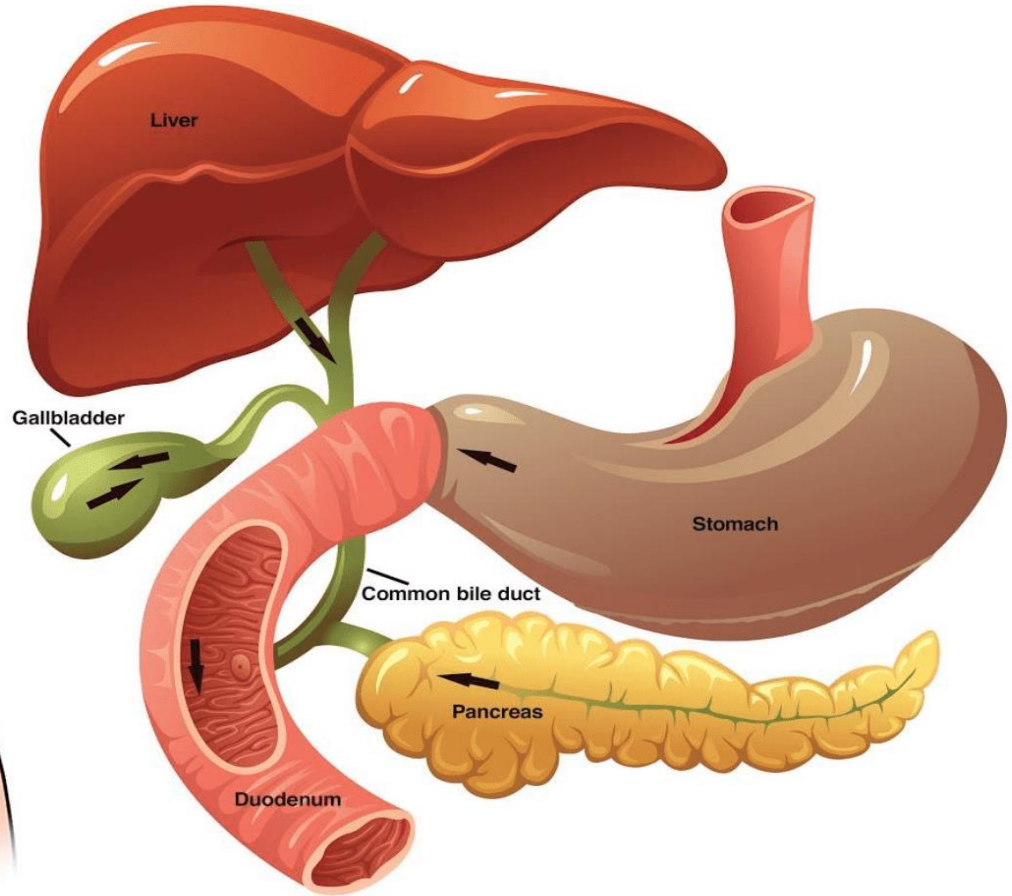
PET CT,

BLOODS INCLUDING LFTS AND TUMOUR MARKERS,

CENTRAL MDT DISCUSSION- PRIOR TO INTERVENTION.

ERCP

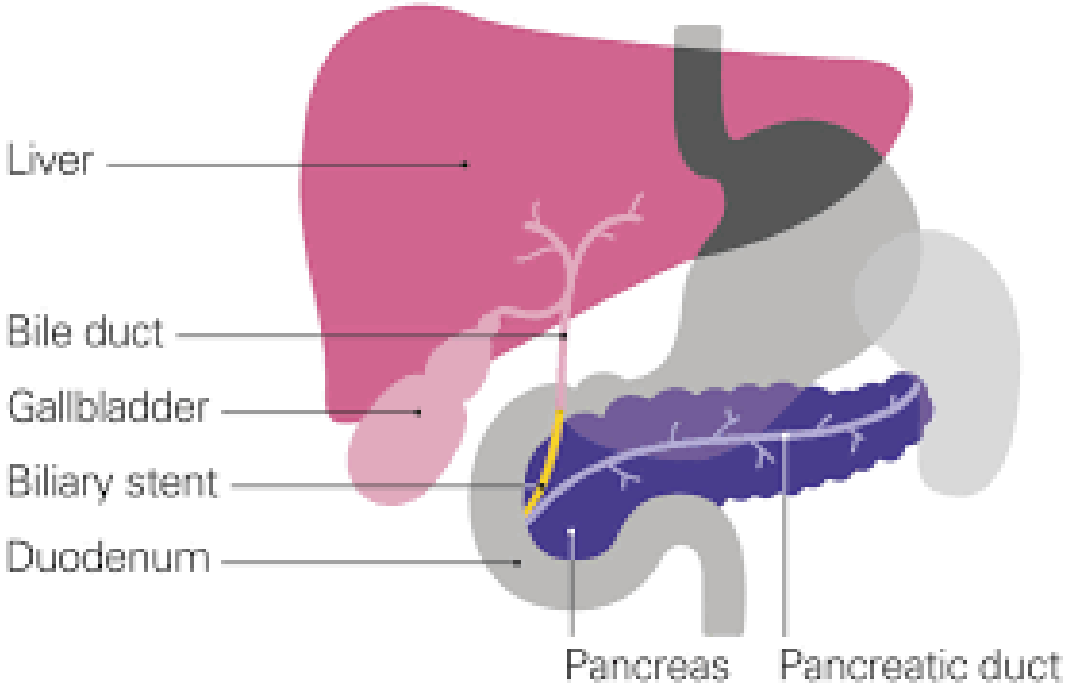

The endoscope is passed through the mouth to the opening of the bile duct and pancreatic duct.
Duodenum


Liver
Gallbladder
Stomach
Common bile duct
Pancreas
Duodenum

Endoscopic biliary stent

- **Benefits**
- Day case procedure,
- Performed with sedation,
- Quick recovery,

- **Risks**
- Perforation,
- Infection,
- Pancreatitis
- May need replacing if blocked.



Percutaneous transhepatic cholangiogram (PTC)

Needle is passed directly through the skin between the ribs into the liver under radiological guidance. External drain is left in place. 2-3 days later an internal stent is placed, and the external drain bag is removed.

Only considered if ERCP & stent is not possible or has been attempted and unsuccessful.

Increased risk of perforation, bile leaks, infection and haemorrhage.

Requires hospital stay and general anaesthetic.

What if treatment is not appropriate or possible ?

- Bile acid binding drugs ie.. Colestyramine, colesevelam.
- Antihistamines for itch ie.. Chlorphenamine.
- SSRI and antidepressants.
- Topical creams with menthol.
- Keeping cool, cool showers, ice packs, cotton clothing and sheets.
- Managing nausea & pain to relieve symptom burden.