

- ACUTE HEPATITIS
- GAS GANGRENE

GI Emergencies + Diabetic

- GI HAEMODYNAMIC Emergencies
- PANCREATITIS
- BOWEL OBSTRUCTION + PERFORATION
- DIABETIC EMERGENCIES

Acute Hepatitis

- See MBBS 3 GI!
- Hepatitis can be:
 - Enterically transmitted (hepatitis viruses A and E)
 - Parenterally transmitted (hepatitis viruses B, C and D)
 - As a result of Weil's Disease (Leptospirosis); this occurs through mucosal contact with water infected with rat's urine and is characterised by pyrexia, headache, abdominal pain, limb and back pain, and often accompanying jaundice with a purpuric rash
 - Due to certain drugs
- The most common cause of hepatitis is a Hepatitis A infection transmitted via a faecal-oral route with outbreaks tending to occur in an institution
 - There will be signs and symptoms such as anorexia, malaise, n/v, abdominal pain, right upper quadrant pain, jaundice, dark urine and pale stools, pyrexia, urticaria and hepatosplenomegaly
- Investigations: bilirubin and urobilinogen in the urine
- Treatment:
 - Can be treated at home with GP follow-up if the symptoms are fairly mild
 - Hospital admission for those with significant jaundice or more severe symptoms

Supportive Tx mainly = bedrest, fluids, anti-emetics, antipyretics, antihistamines etc.

Gas Gangrene (necrotising myositis)

- This is when damaged tissue becomes contaminated with anaerobic bacteria (from the soil or from the intestines of animals or humans)
- Clostridium Perfringens in the classic culprit by others can be the cause
- The bacteria multiply and produce toxins which digest muscle and subcutaneous tissue, causing gas to be liberated
- The infected area with smell foul, and the patient will have a high fever, hypotension and usually a toxic delirium. Jaundice, systemic sepsis and organ failure progress from here.
- Investigations:
 - You can usually make a clinical diagnosis simply by being presented with the case
 - There tends to be elevated white cell counts and urea
 - There is metabolic acidosis and coagulopathy in the later stages
- Treatment
 - Fluid resuscitation
 - Broad-spectrum IV antibiotics (e.g.: co-amoxiclav and metronidazole)
 - Immediate surgical debridement of the wound

Gastrointestinal Haemorrhage

- Think GI bleed when a patient presents with haematemesis/ melaena/ syncope/ dizziness/ free PR bleed/ hypotension. Subacutely, it may present with anaemia, fatigue etc
- The most common cause is peptic ulceration
- Enquire about alcohol consumption, medications (especially NSAID use) etc
- Management:
 - Seek senior help
 - Give oxygen (15L high flow, through non-rebreath mask)
 - Do bloods (including clotting and cross-match), CXR, ECG, monitor urine output
 - Give IV fluids (crystalloid)
 - Do an ABG and look at the haemoglobin and lactate specifically
 - Calculate Glasgow-Blatchford Score (score that calculates the need for intervention)
 - Do endoscopy, but if not likely to happen imminently, give IV omeprazole
 - Correct clotting abnormalities (e.g.: give vitamin K, fresh frozen plasma etc)
 - Consider transfusion if not improving
 - Consider H.Pylori eradication therapy afterwards
- If you are thinking it might be a variceal bleed, consider IV Terlipressin, broad spectrum antibiotics (e.g.: cefuroxime) and do an urgent endoscopy

FRESH P.R BLEED IN ELDERLY: coloproctology are diverticular disease. ~~less~~ second commonest is angiodysplasia

Pancreatitis

- Pancreatitis is often predisposed by chronic biliary disease (especially in women) and excess alcohol consumption (especially in men)
- There is a constant, severe pain that may have begun very suddenly. Classically, it extends bilaterally from the epigastrium, radiates to the back, and is relieved by sitting forwards
- There will be vomiting
- There will be epigastric tenderness and guarding, and decreased bowel sounds
- Tachycardia is common and pyrexia is uncommon
- Investigations:
 - A serum amylase of >1200IU/mL is considered diagnostic
 - Sodium, potassium and calcium are usually low
 - Plasma WCC is usually raised
 - Serum bilirubin may be raised
 - CXR may show effusion
 - The patient may be hypoxic
- Treatment:
 - Nasogastric aspiration and keep the patient nil by mouth
 - IV fluids
 - Antibiotics
 - Analgesia

Bowel Obstruction & Perforation

- The usual symptoms are vomiting, colicky pain, abdominal distension (there may be visible peristalsis) and absolute constipation. The obstruction may be partial or complete
- Small bowel obstruction tends to have early onset vomiting followed by constipation and may be partial or complete. It tends to be due to an incarcerated hernia or adhesions
- Large bowel obstruction tends to be the other way around, with an earlier onset of constipation and vomiting occurring later. It tends to mostly be due to a carcinoma, diverticulitis or volvulus
- Investigations: routine bloods to look for any disturbances that may have led to the obstruction, and AXR (supine and erect to show both the obstruction itself and a possible fluid level) and CXR for any air under the diaphragm.
- Management:
 - Keep nil by mouth and give IV fluids ('drip and suck')
 - Insert an NG tube if there is a small bowel obstruction and/or vomiting
 - Give pain relief
 - Consider antibiotic prophylaxis against sepsis
 - If there is no peritonism, treatment should be conservative for 2-3 days (continue with nil by mouth and NG tube)
 - Surgery should be done if the conservative treatment doesn't work or there are signs such as crescendo pain, peritonism, complete colonic obstruction, closed loop seen radiologically, hernial incarceration etc
 - If the large bowel obstruction is caused by faecal impaction, enemas or manual removal of faeces should be performed
- Bowel perforation: consider if there are signs of peritonism or air under the diaphragm on an erect CXR. Otherwise, features depend on the site and underlying cause, and you should do immediate surgery.

Diabetic Emergencies

DKA (Diabetic Ketoacidosis):

- Type 1 diabetes
- Ketones in blood and urine
- Metabolic acidosis (pH <7.3)
- Abdominal pain, vomiting, coma
- Kussmaul breathing (trying to get rid of CO2 as acidic)
- Weight loss, dehydration, polyuria, polydipsia
- Investigate:
 - Urine dip (ketones and glucose)
 - Bloods (A/G, WBC, FBC, U&Es)
 - Others include CXR and ECG
- Treatment:
 - Correct dehydration: give 0.9% sodium chloride
 - Correct acidosis and reverse ketosis (give potassium if it is low)
 - Restore blood glucose to normal/near normal: give fixed rate IV insulin infusion (0.1 units/kg) & IV 10% glucose
 - Monitor for complications and identify/treat precipitants

give initial fluid replacement (normal saline) before starting insulin infusion

HHS/HONK (Hyperosmolar Hyperglycaemic State):

- Type 2 diabetes
- V. High glucose in blood (>35mmol/L)
- No acidosis or ketosis
- Polyuria, polydipsia, dehydration, weight loss, disordered mental state/coma
- High risk of DVT/PE
- Tends to present more insidiously compared to DKA
- Treatment: this is basically the same for DKA, but
 - Lower doses of insulin are required
 - Saline can be used as part of the rehydration regimen
 - Give subcutaneous heparin for the thromboembolism risk