Presentation - Upper GI bleed

Aetiology of upper GI bleed

- Peptic ulcer disease - oesophageal, gastric or duodenal ulcers
  - Prevalence 4% of the population
  - Due to H. pylori, NSAID use, alcohol, steroid use, Zollinger-Ellison syndrome (gastrin-secreting tumour causing multiple ulcers)
- Oesophagitis and gastroduodenal erosions (15%)
  - Due to aspirin, other NSAIDs, steroids
- Oesophageal varices
  - Due to portal hypertension, usually associated with chronic liver disease
- Portal hypertensive gastropathy
- Mallory-Weiss tears
  - Secondary to prolonged vomiting
- Dieulafoy's lesion
  - Tortuous arteriole usually upper part of lesser curve, bleeding occurs through a tiny defect.
- GORD
- Upper GI malignancy
- Vascular malformations
- Aorto-enteric fistula (commonest at approx 5 years post-surgery. Approx 2% risk)

History in upper GI bleed

- History of presenting complaint
  - Haematemesis – can be bright red OR coffee-ground
  - Melaena – distinctive smell, tar-like
    - Volume of blood loss in either case
  - Dyspesia
  - Dizziness
  - Chest pain
  - Prolonged vomiting/retching
  - Constitutional symptoms
- Past medical history
  - Previous GI bleed
  - Known PUD/varices
  - Malignancy
  - Liver disease
  - Known cardiovascular/respiratory disease (fitness to undergo sedation and/or intubation for endoscopy)
- Medications
  - NSAIDs
  - Steroids
  - Anticoagulants
- Allergies
- Social history
  - Alcohol consumption

Examination of upper GI bleed

- Signs of chronic liver disease
- DRE for melaena

- Signs of shock
    - Tachycardia, hypotension, altered conscious level, postural BP (often not appropriate in acute setting)
- Encephalopathy

Initial management of acute upper GI bleed - see http://www.nice.org.uk/guidance/cg141/chapter/1-recommendations for further details

- Resuscitation
    - A – manage airway and consider need for intubation/airway adjunct or suctioning
    - B – give oxygen to maintain sats > 96%
    - C –
        - BP, HR
        - Large-bore IV access x 2
        - VBG to assess Hb, acidosis, lactate
        - Send lab bloods for FBC, U+Es, clotting, X-match (2-4 units usually)
        - IV fluid resuscitation (crystalloid is fine acutely)
    - D – AVPU, check glucose level
    - E - ?peritonitic abdomen
- Imaging
    - Erect CXR to look for gas under diaphgragm
- Catheter insertion for accurate fluid balance monitoring
- Transfusion
    - Transfuse with x-matched (or O-neg or type-specific blood if very urgent) blood if haemodynamically unstable
    - Current guidelines suggest transfusing if Hb < 7 for patients with cirrhosis
    - If massive blood loss occurs then follow local protocols for transfusing platelets and clotting factors along with blood.
    - Give prothrombin concentrate complex to patients on warfarin who are actively bleeding
- Proton-pump inhibitors
    - Current NICE guidance is NOT to give acid-suppression (PPIs, H2-RA) to patients with suspected non-variceal bleeds prior to endoscopy).
    - If evidence of recent haemorrhage then IV or oral PPI is given post-endoscopy
    - In practice however, this is still commonly given prior to endoscopy
- Prokinetic
    - Metoclopramide 10mg IV can be given to empty the stomach contents to allow better views at endoscopy
- Variceal bleeds
    - Treat as above
    - Give broad-spectrum antibiotics i.e. IV Tazocin 4.5g
    - Give IV Terlipressin 2g (unless peripheral vascular disease)
- Endoscopy
    - Scoring system (see below)
    - Offer endoscopy to unstable patients with severe bleeding immediately after resuscitation
    - Offer endoscopy to all other patients within 24 hours
    - Management of non-variceal bleeding
        - Clips +/- adrenaline
        - Thermal coagulation with adrenaline
        - Fibrin/thrombin with adrenaline
    - Management of variceal bleeding
        - Band ligation for oesophageal varices
        - Injection of N-butyl-2-cyanoacrylate for gastric varices

- Consider TIPSS procedure if the above methods do not control the bleeding

Further management of acute upper GI bleed

- Sengstaken-Blakemore tube
  - A tube inserted into the stomach with gastric and oesophageal balloons – ONLY inflate the gastric balloon
  - Can only be used in intubated patients with varices
  - Used as a bridge for definitive therapy – usually either endoscopy or TIPSS
- Surgical intervention
  - Perforated viscus

Scoring systems for upper GI bleed

- Rockall
  - Prognosticates
  - Age, Shock, co-morbidities
    - Diagnosis and stigmata after endoscopy
  - Scores below 2 have a very low mortality
  - Scores 8 or higher have a mortality of 40%+

- Blatchford-Glasgow
  - Risk stratify – predicts the need for hospital-based intervention
    - Urea, Hb, Systolic BP
    - Other: pulse, melaena, syncope, hepatic disease, cardiac failure
  - Use acutely but not as good as Rockall in predicting overall mortality
  - Score 0 = home
  - Score >0 = endoscopy
  - Score >5 (6 and up) = same day endoscopy

Common questions concerning upper GI bleed

What are the common causes of upper GI bleeds?

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