

Internal Medicine - Rotations Notes.

• Gastroenterology

→ Approach to Upper GI bleeding. - Stable patient

① Step 1: History questions to ask:

Typical presentation includes: (Chief complaint)

- ↳ 1 Hematemesis (vomiting of fresh blood)
- ↳ 2 Melena* (black, tarry stool w/ bad odour - offensive -)

* DD of melena: 1 Iron supplement 2 Drugs: Bismuth (H. pylori)

Ask about! 3 Vitamins (B complex) 4 Food (ex: spinach)

Mechanism: Prothobilinogen - found in RBCs - is turned into haematin by the bacteria found in the colon.

Conditions for melena to form → Duration: > 48 hr

> rate of bleeding → Amount: 50-100 mL/hr

↳ 3 Haematochezia (> 1000 mL/day of blood - massive -)

- blood on top of stool - mainly seen in lower GI bleeding.

↳ 4 Coffee ground vomiting (characterized by its look due to hydrolysis of the blood)

↳ 5 Iron deficiency anemia - due to chronic blood loss -

↳ Pallor ↳ Dizziness ↳ Headache

↳ Fatigue ↳ Chest pain

↳ 6 Some patients may be presented as cases of shock due to chronic uncontrolled bleeding.

* After asking about the symptoms, make sure to cover the following:

↳ History of chronic diseases (especially, cirrhosis → esophageal varices)

↳ Drug history (NSAIDs / high dosages of steroids / anticoagulants - in case of abnormal mucosa - / thrombolytic drugs.

↳ Family history (someone with similar symx) / HHT (Osler)

↳ Social: Alcohol / Smoking

↳ Surgical history: aortic surgery

Differential Diagnosis of UGIB:

↳ PUD (including NSAID-induced)

↳ Drugs [↑ doses of steroids / anticoagulants → abnormal mucosa only]

↳ Mallory-Weiss tear.

[Erosions / Partial tear in the esophageal mucosa as a result of repetitive vomiting]

↳ Oesophageal varices

↳ Esophageal malignancies

↳ Esophagitis (chemical / drugs / infections (candida))

↳ angiodysplasia (also causes lower GI bleeding)

↳ Gastritis / gastric erosions

↳ Aortoenteric fistula - iatrogenic fistula -

[px has a history of aortic graft / projectile blood gush]

↳ Zollinger-Ellison syndrome (ZES) - can be considered w/ PUD -

↳ Osler-Weber syndrome hereditary hemorrhagic telangiectasia.

[their vessels are dilated due to an ↑ of the endothelial GF, therefore they are susceptible to recurrent GI bleeding.]

↳ Alcohol (gastritis / esophagitis).

2 Step 2: Physical Examination:

- perform a general abdominal examination followed by local abdominal examination.
- most important sign to check: vital signs (why? to check whether the patient is in shock or not)
 - ↳ **Pulsation** is the most imp one, why? **tachycardia precedes hypotension in hypovolaemic shock.**

→ What to look for?

↳ Stigmata of chronic liver disease [in general examination]

includes: → discolouration: jaundice | Tremor: Asteraxis.

(This doesn't include all signs!)

- Hands: Clubbing / leukonychia / Terry's nails (white proximally $\neq$ red distal $\frac{1}{3}$ / Palmar erythema / Dupuytren's contracture /
- Head: Xanthelasma.
- Chest: Spider naevi / gynecomastia / loss of body hair.
- Others: Hepatomegaly / splenomegaly / ascitis

↳ Signs found in abdominal examination - dependent on the cause -

→ Abdominal tenderness (PVD)

→ Hepatomegaly / splenomegaly (signs of portal hypertension → EV.)

3 Step 3: Investigations

→ First, ensure px is NPO + insert $\geq$ large-bore (14-16G) IV cannulae

① CBC (assess Hb - for anemia - / WBCs (infection) / Platelet)

② Chemistry: LFTs (INR / albumin / PT / PTT) / liver enzymes / kidney function (why? hypovolaemic shock → pre-renal AKI / they might be a CKD px w/ uremia → uremic gastritis (causing UGIB))

most imp! ③ Blood type $\neq$ crossmatch.

4 Step 4: Management

- Fluids (normal saline or Ringer lactate) 2-4 L/day (HF px are)
- Blood transfusion according to Hb (target: **7-9 g/dL**) given $\geq$ 2 L
- Administer PPI (approved: **esomeprazole / pantoprazole**) $\oplus$ elderly.
 - ↳ 80 mg bolus + 8 mg/hr for 48-72 hr.

Notes

- Haematin is used as a drug in acute intermittent Porphyria. (mostly ♀)
- UGIB signs also include:
 - ↳ capillary refill time $> 2s$
 - ↳ cool extremities
- Spontaneous remission occurs in 80% of cases

- Administer antibiotic in case of suspected esophageal varices in addition to: **Terlipressin** (give somatostatin if not available).
- Endoscopy
 - ↳ Stable: within 24 hrs

• In case of unstable patient :

↳ 1 ABC

→ secure an open airway

→ check breathing.

→ Circulation: insert 2 large-bore IV cannulae (14-16G) and give fluid

↳ send a sample for CBC / chemistry / and most importantly **(crossmatch!)**

↳ administer IV medications (80 mg bolus PPI)

↳ Endoscopy: within 12 hr, unless the px is at high risk (HF / active bleeding / hypotensive regardless of fluid administered / cardiovascular disease) → within 1-2 hr.

↳ Once stabilized, you can take history / examination.

Notes

- after the admission of stable px, check:
 - ↳ Vital signs every 6 hr.
 - ↳ CBC / 6 hr (in case of hemoglobin drop).
- Endoscopy is diagnostic & therapeutic.