UPPER GIT BLEEDING

Defined as bleeding originating proximal to the *Ligament of Treitz*.

PATHOPHYSIOLOGY.

- **Peptic ulcer disease.**
    - The commonest cause of UGIT bleeding.
- **Erosive gastritis & oesophagitis.**
    - ~13% of all cases of UGIT bleeding.
    - Predisposition incl. *alcohol, NSAIDS & aspirin.*
- **Oesophageal & gastric varices.**
    - Result from portal hypertension.
    - Most commonly relate to *alcoholic liver disease.*
    - High re-bleed rate & assoc. mortality.
    - Patients with known cirrhosis/varices can have non-variceal bleeding.
- **Mallory-Weiss syndrome.**
    - Longitudinal mucosal tear in the cardio-oesophageal region.
    - Typically = repeated vomiting following by bright red haematemesis.
- **Others.**
    - Stress ulcers
    - AV-malformations
    - Malignancy
    - Non-GIT bleeding
        - ENT mimics
        - Aorto-enteric fistula.

DIAGNOSIS.

History.

- Whilst Hx can often suggest the source/focus of bleeding; it can also be misleading.
    - ~14% of bright red PR bleeding originates from UGI source.
- Most patients will offer a Hx of ***haematemesis*** or ***melaena.***
    - May by SUBTLE.
- Hypotension, tachycardia, angina, syncope, weakness, confusion or even cardiac arrest.
- *Risk factors / Associations.*
    - NSAIDS, aspirin, steroids, anticoagulant use.
    - Alcohol abuse / Cirrhosis
    - Hepatitis
    - Repeated vomiting - *Mallory-Weiss.*
    - Aortic-grafts.

Physical Examination.

- Vital signs ?instability.
    - Decreased pulse-pressure or tachypnoea.
- Skin perfusion
- Stigmata of chronic liver disease.

        - Spider naevi, jaundice, palmar erythema
        - Gynaecomastia
        - Petechiae & purpura.
    - Abdominal exam.
        - Tenderness / peritonism
        - Masses / ascites / organomegaly.
    - Rectal exam.
        - Presence of blood / appearance of blood (melaena, bright red, other).

Investigations.

- *Group & hold* is the most important test to get early !!
- Bloods:
    - FBC:
        - Hb & HCT - not a reliable measure of blood loss (esp. early)
    - EUC / LFTs.
        - Classically; elevated urea:creatinine ratio.
    - Glucose - esp. with established liver failure.
    - Coagulation - marker of disease, also a target of potential therapy.
- ECG.
- Routine CXR/AXR are *NOT* indicated unless there are specific concerns.
- *Guaiac testing*.
    - Stool & NG-samples can be tested.
    - Negative guaiac testing does *NOT* exclude presence of bleeding.
- Endoscopy.
    - Allows diagnosis plus treatment.

TREATMENT.

RESUSCITATION.

- Intubation for failure to clear blood/secretions ± associated aspiration/hypoxia.
- Oxygenation
- Shock/hypotension - activation of massive transfusion protocol.
- Correct coagulopathy.

DRUG THERAPY.

- PPI.
    - Reduces rebleeding & need for surgery *in bleeding peptic ulcers.*
    - **Pantoprazole -** 80mg bolus + 8mg/hour infusion.
- Octreotide.
    - For presumed (or potential) variceal bleeding.
    - 50mcg bolus + 25-50mcg/hour infusion.
- Terlipressin.
    - 2mg IV q6h
- Antibiotics.
    - Ceftriaxone - for presumed variceal bleeding.

Octreotide & terlipressin reduce splanchnic blood flow & ∴ portal pressure.

ENDOSCOPY.

- The most accurate technique of identifying UGI bleeding.
- Predicts mortality
- Allows for therapeutic manouevers;

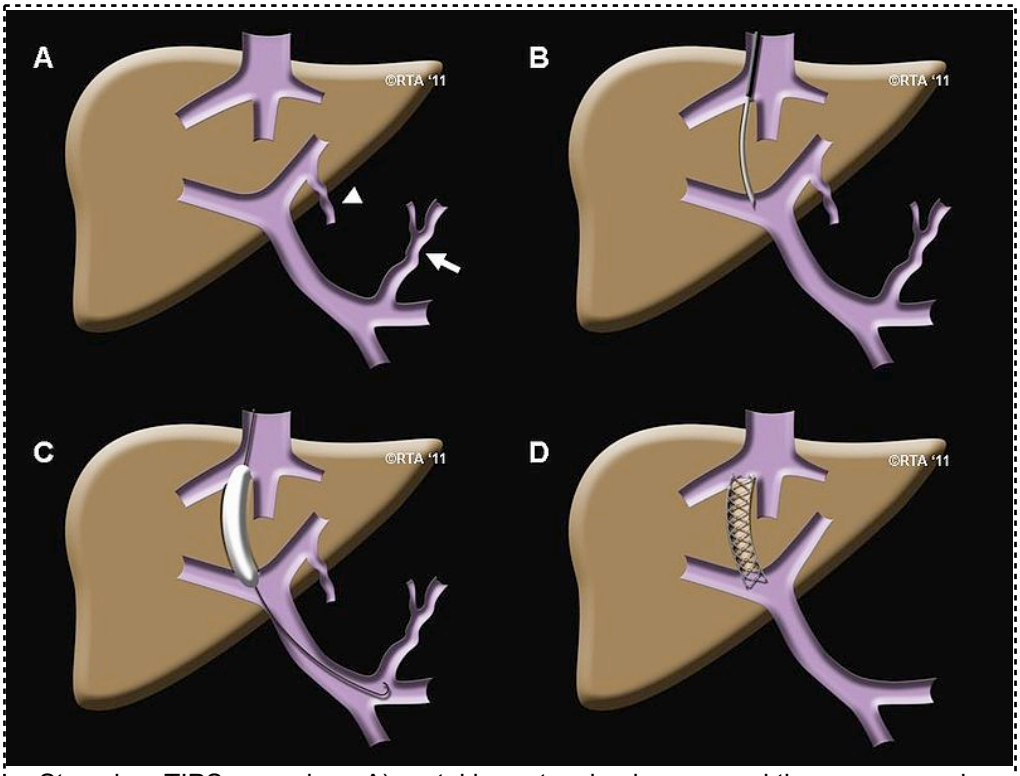
- injection therapy
- thermocoagulation, electrocoagulation
- band ligation

BALLOON TAMPONADE.

- Sengstaken-Blakemore tube.
    - Oesophageal & gastric balloons.
- Life-threatening haemorrhage; bridge to endoscopy.
- Marked potential side-effects/complications.
    - Ulceration
    - Oesophageal & gastric rupture !!
    - Asphyxiation !!! [Patients should be intubated first]

SURGERY.

- For those who DO NOT respond to medical & endoscopy therapies.
- Laparotomy & over-sew !
- TIPSS procedure.
    - “transjugular intrahepatic portosystemic stent shunting” - see below.



Steps in a TIPS procedure: A) portal hypertension has caused the coronary vein (arrow) and the umbilical vein (arrowhead) to dilate and flow in reverse. This leads to varices in the esophagus and stomach, which can bleed; B) a needle has been introduced (via the jugular vein) and is passing from the hepatic vein into the portal vein; c) the tract is dilated with a balloon; D) after placement of a stent, portal pressure is normalized and the coronary and umbilical veins no longer fill.

DISPOSITION.

High risk features requiring admission & early endoscopy.

- HCT < 30%
- Initial systolic BP < 100mmHg
- RBC on NG-lavage
- Hx of ascites/cirrhosis
- Hx of bright red vomiting.

A *Glasgow-Blatchford Bleeding* Score of zero (at very low risk for adverse clinical outcome) and may be discharged home without endoscopy.

Table 78-1 Glasgow-Blatchford Bleeding Score

	Score Value
Blood urea (milligrams/dL)	
<18	0
18–22	2
23–27	3
28–70	4
>70	6
Hemoglobin (men, grams/dL)	
≥13.0	0
12.0–12.9	1
10.0–11.9	3
<10	6
Hemoglobin (women, grams/dL)	
≥12.0	0
10.0–11.9	1
<10.0	6
Systolic blood pressure (mm Hg)	
≥110	0
110–109	1
90–99	2
<90	3
Other markers	
Pulse ≥100 beats/min	1
Presentation with melena	1
Presentation with syncope	2
Hepatic disease*	2
Cardiac failure†	2

*Known history or clinical and laboratory evidence of chronic or acute liver disease.