

HAEMATEMESIS

Haematemesis is the vomiting of blood. This may be frank blood or blood altered by the action of gastric acid and digestive enzymes, i.e. 'coffee grounds'. Haematemesis is usually caused by lesions proximal to the duodenojejunal junction.

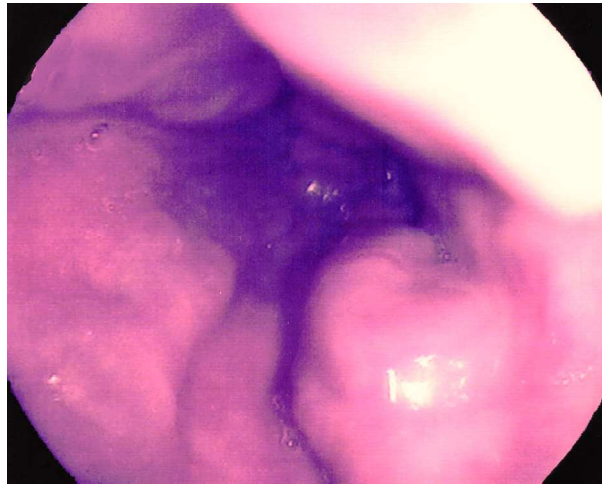


Figure 29 Endoscopic view of oesophageal varices. The bulging blue masses can be seen protruding into the oesophageal lumen.

CAUSES

SWALLOWED BLOOD

- Epistaxis
- Haemoptysis

OESOPHAGUS

- Reflux oesophagitis
- Oesophageal varices ([Fig. 29](#))
- Oesophageal carcinoma

STOMACH

- Peptic ulceration
- Acute gastric erosions

- Mallory–Weiss syndrome
- Carcinoma
- Leiomyoma (gastrointestinal stromal tumour – GIST)
- Hereditary haemorrhagic telangiectasia
- Vascular malformations

DUODENUM

- Peptic ulceration
- Duodenal diverticulae
- Aortoduodenal fistulae
- Invasive pancreatic tumours
- Haemobilia

BLEEDING DISORDERS

- Liver disease-associated
- Thrombocytopenia
- Haemophilia

DRUGS

- Anticoagulants
- Aspirin
- NSAIDs
- Steroids

OTHERS

- Uraemia
- Connective tissue disorders

HISTORY**Swallowed blood**

Check for a recent history of epistaxis or haemoptysis.

Oesophagus

There may be a history of excess alcohol consumption or a history of other liver disease to suggest oesophageal varices. A history of retrosternal burning pain and heartburn would suggest oesophagitis. The bleeding associated with varices is often torrential; that associated with oesophagitis is minor. Check for a history of dysphagia, which can result from carcinoma.

Stomach

History of epigastric pain to suggest peptic ulceration. There may be a history of steroid or NSAID medication. Mallory–Weiss syndrome

usually occurs in the younger patient who has had a large meal with a large quantity of alcohol, followed by a forceful vomit. The first vomit contains food, the second contains blood. Acute gastric erosions may occur with stressful illnesses, e.g. major surgery, acute pancreatitis, burns (Curling's ulcer) or head injuries (Cushing's ulcer). It is unusual to get a large bleed with a carcinoma. Anaemia is a common presentation, although there may be 'coffee grounds' vomit. Leiomyoma causes a moderate haematemesis. There is usually no preceding history. There will also be no preceding history with vascular malformations. Hereditary haemorrhagic telangiectasia is rare. The patient may present with a history of the condition, or it may be apparent from the telangiectasia around the lips and oral cavity.

Duodenum

Melaena tends to be a more common symptom than haematemesis with duodenal lesions. There may be a history of chronic duodenal ulceration, although often presentation may be acute with little background history. Bleeding from invasive pancreatic tumours is rare. The patient will present with malaise, lethargy, weight loss and vomiting. Haemobilia is rare. Aortoduodenal fistula is rare and usually follows repair of an aneurysm, with subsequent infection of the graft. There is massive haematemesis and melaena.

Bleeding disorders

The patient may present with a history of a bleeding disorder, e.g. haemophilia. There may be a history of spontaneous bruising or bleeding from other orifices.

Drugs

There may be a history of anticoagulant, steroid or NSAID therapy. Always question the patient carefully to see whether he or she has bought any proprietary, 'over-the-counter' preparations that may contain aspirin or NSAIDs.

Others

Uraemia may cause bleeding. Other symptoms such as dyspnoea, nausea, malaise, peripheral oedema or coma may be present. Rarely, gastrointestinal bleeding may be a presenting symptom of a connective tissue disease.

EXAMINATION

Depending upon the severity of the bleed, there may be shock. The patient will be cold, clammy, with peripheral vasoconstriction; there will be a tachycardia and hypotension.

Swallowed blood

Check for blood around the nose. Examine the chest for a possible cause of haemoptysis.

Oesophagus

There may be little to find on examination, except clinical signs of anaemia and weight loss, unless the cause is oesophageal varices. In the latter case, there may be jaundice, abdominal distension due to ascites, spider naevi, liver palms, clubbing, gynaecomastia, testicular atrophy, caput medusae, splenomegaly or hepatomegaly.

Stomach

There may be little to find on examination. There may be an epigastric mass with a carcinoma or a palpable left supraclavicular node (Virchow's node). There may be epigastric tenderness. With hereditary haemorrhagic telangiectasia, there may be telangiectasia on the lips and mucous membrane of the mouth.

Duodenum

Again, there may be little to find on examination other than epigastric tenderness. In the rare case where duodenal bleeding comes from an invasive pancreatic carcinoma, there may be a palpable mass in the region of the pancreas.

Bleeding disorders

There may be signs of bruising or bleeding from other orifices.

Drugs

The signs will depend on the severity of the bleed and the site of the lesion produced.

Others

There may be signs of uraemia, e.g. pallor, bronze colour of the skin, pulmonary oedema, peripheral oedema, pericarditis, cardiac tamponade, hypertension, retinopathy. Rarely, haematemesis may be associated with connective tissue diseases, e.g. polyarteritis nodosa. Other manifestations of polyarteritis nodosa may be apparent, e.g. neuropathies, cardiac disease or skin lesions.

GENERAL INVESTIGATIONS

- **FBC, ESR**
Hb ↓ anaemia due to chronic bleeding, e.g. from carcinoma.
ESR ↑ connective tissue disease.
- **U&Es**
Urea and creatinine will be raised in uraemia. Urea may be raised due to absorption of blood from the bowel.
- **LFTs**
Liver failure, oesophageal varices, haemobilia.
- **Clotting screen**
Liver disease. Bleeding diatheses. Anticoagulants.

■ OGD

Will demonstrate most lesions, e.g. varices, oesophagitis, peptic ulcer, gastric erosions, Mallory–Weiss tear, carcinoma and rarer causes of bleeding. Biopsy may be carried out where necessary.

SPECIFIC INVESTIGATIONS**■ Angiography**

Vascular malformations. Also may diagnose rarer distal duodenal causes, e.g. vascular malformations.

■ US

Aortic aneurysm.

■ CXR

Chest lesion.

■ CT

Aortic graft infection.



- When assessing a patient with haematemesis, it is important to secure intravenous access with a large-bore cannula and to send blood for cross-matching as soon as possible.
- Always take a careful drug history, especially of 'over-the-counter' drugs.
- Tachycardia may be the only physical sign of a significant GI bleed, especially in the younger patient.