

Upper gastrointestinal bleeding, chronic pancreatitis and a near miss

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DESCRIPTION

A 43-year-old man presented with a 2-day history of haematemesis and melaena. His medical history included chronic pancreatitis and alcohol-induced liver cirrhosis.

Gastroscopy revealed a small amount of blood in the duodenum but no bleeding source. Following endoscopy, he remained stable but his haemoglobin dropped from 9.8 to 7.8 g/dL in 4 days. A repeat endoscopy was also unremarkable.

The following day he developed severe abdominal pain and haemodynamic instability. An urgent CT of the abdomen was performed (figure 1). This demonstrated a large gastroduodenal artery pseudoaneurysm. This was successfully treated with aneurysmal embolisation. Figure 2A,B demonstrates the pre-embolisation and postembolisation images.

Pseudoaneurysm of the gastroduodenal artery is an uncommon complication of chronic pancreatitis occurring in approximately 5% of cases.^{1 2} Aneurysmal disease most often affects splenic, gastroduodenal and pancreaticoduodenal arteries.³ It is caused by visceral arterial exposure to proteolytic pancreatic enzymes, causing a local arteritis with resultant damage to the vessel wall, more commonly observed in chronic pancreatitis.² When associated with bleeding it can be rapidly fatal even if detected early.³ Pain and gastrointestinal haemorrhage are common presenting symptoms. Endoscopy is often unsuccessful in locating the source of bleeding and CT angiography is the diagnostic test of choice.



Figure 1 An axial venous phase abdominal CT with contrast at the level of the gallbladder demonstrates a large central pseudoaneurysm arising from the gastroduodenal artery (black arrow), with surrounding inflammatory change (white arrow).

Reliance on endoscopy alone can lead to a missed diagnosis.

Management includes aneurysmal embolisation and surgical repair. Embolisation using arteriography is the first-line treatment, with success rates of 75–88%.^{2 3} Surgical approaches, including partial pancreatectomy or arterial ligation are reserved for cases where embolisation is unsuccessful.¹

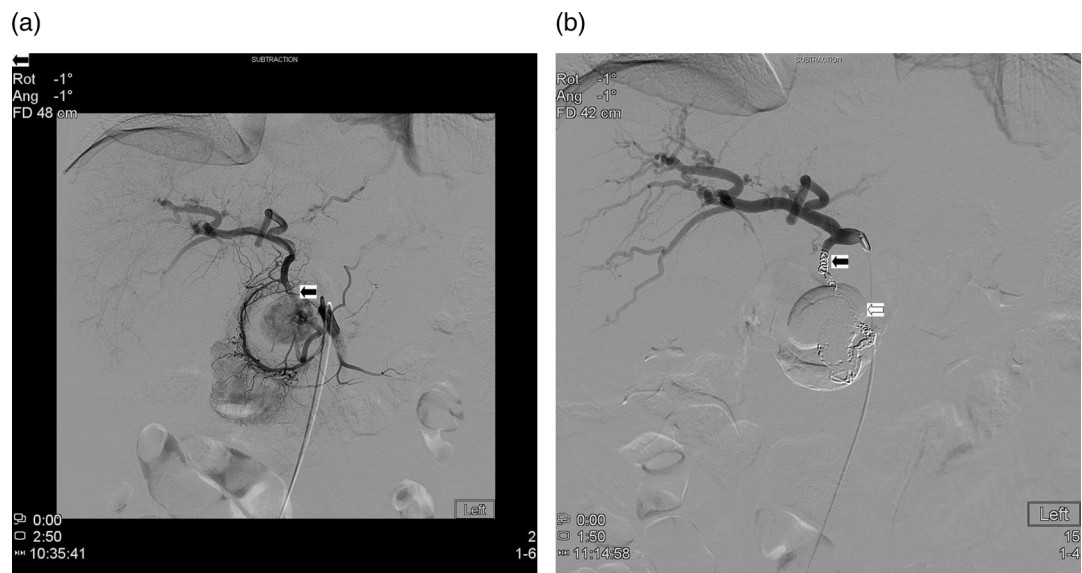


Figure 2 (A) Pre-embolisation angiogram demonstrates contrast filling the large central pseudoaneurysm arising from the gastroduodenal artery (GDA) (arrow). (B) Embolisation coils (black arrow) were inserted to stop flow into the pseudoaneurysm sac from the GDA. A check angiogram demonstrates no flow into the pseudoaneurysm sac (white arrow).

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Learning points

- ▶ Upper gastrointestinal bleeding is a common medical emergency and endoscopy remains the primary diagnostic investigation. However, reliance on endoscopy alone may miss a potentially life-threatening diagnosis.
- ▶ In chronic pancreatitis, significant upper gastrointestinal bleeding is most often associated with peptic ulcer disease and complications of portal hypertension related to coexisting liver cirrhosis.
- ▶ Although uncommon, pseudoaneurysm formation should be considered and investigated using CT imaging if upper gastrointestinal endoscopy is normal.

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