

An unusual cause of upper gastrointestinal bleeding

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CASE

A 56-year-old man was admitted to the hospital with anaemic syndrome and an episode of melaena. His past medical story was remarkable for chronic ethanol abuse, chronic liver disease with previous ascites, chronic calcifying pancreatitis and chronic obstructive pulmonary disease. Previous surgical procedures included perforated peptic ulcer and funduplicature for hiatal hernia. Exploration disclosed a normal blood pressure, skin pallor, tachycardia, and was otherwise within normal limits. Laboratory revealed a normocytic anaemia with a high reticulocyte count. Gastroscopy did not show macroscopic lesions. Contrast-enhanced abdominal computed tomography (figure 1) showed features of chronic pancreatitis and a homogenously enhancing mass (arrow) within a 5-cm pancreatic pseudocyst in the head of the pancreas.

Figure 1. Contrast-enhanced abdominal computed tomography scan. Homogenously enhancing lesion (arrow) within a pancreatic pseudocyst in the head of the pancreas



WHAT IS YOUR DIAGNOSIS?

See page 45 for the answer to this photo quiz.

ANSWER TO PHOTO QUIZ (PAGE 42)

AN UNUSUAL CAUSE OF UPPER GASTROINTESTINAL BLEEDING

DISCUSSION

Arteriography (*figure 2*) revealed a pseudoaneurysm of the gastroduodenal artery (arrow) that was successfully embolised with thrombin. Abdominal colour Doppler ultrasonography performed one and six months after the procedure did not identify anomalous blood flow.

Bleeding pseudoaneurysm is an uncommon but life-threatening complication of acute and chronic inflammatory pancreatic processes.^{1,3} In chronic pancreatitis prevalence of pseudoaneurysms may reach 3 to 10%.¹ Pathogenesis involves destruction of vessel walls exposed to proteolytic pancreatic enzymes that lead to pseudoaneurysm formation or haemorrhage into a pre-existing pseudocyst.² Affected vessels are in close proximity to the pancreas; the splenic artery is the most commonly affected, followed by pancreatoduodenal and gastroduodenal arteries. Other vessels are involved with less frequency.⁴

Gastrointestinal haemorrhage, due to rupture of a pseudoaneurysm to the gastrointestinal tract or biliopancreatic duct (haemosuccus pancreaticus),⁵ is the

most frequent form of presentation in patients with vascular complications of pancreatitis. However, bleeding to the retroperitoneum, peritoneal cavity, aorta and portal vein may occur.¹ Mortality with actual diagnostic and therapeutic procedures is approximately 20%, although several case series report mortality rates over 50% that may reach 90% in untreated patients.²

The diagnostic approach in patients with gastrointestinal haemorrhage should include fiberoptic endoscopy to rule out other causes of bleeding. Contrast-enhanced computed tomography scan and Doppler ultrasound usually detect the pseudoaneurysm. Arteriography is the diagnostic gold standard, which confirms the diagnosis and allows therapeutic embolisation of the pseudoaneurysm, with coils or thrombin.^{3,6} Success rates of arteriographic embolisation range from 75 to 100% in the literature.^{3,7} The role of surgery is limited to patients with ongoing bleeding and embolisation failure,⁶ although some authors suggest that effective embolisation should be followed by surgical vessel ligation with pseudocyst drainage or partial pancreatectomy.⁷

Figure 2. Abdominal arteriography. Pseudoaneurysm of gastroduodenal artery (arrow)



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