

Rare Occurrence Of Spontaneous Bleeding Pseudoaneurysm Of Splenic Artery Presented As Hemosuccus Pancreaticus

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INTRODUCTION

Hemosuccus pancreaticus is a rare cause of acute upper gastrointestinal bleeding. It is typically associated with pancreatitis that necroses the peripancreatic vessels and leads to pseudoaneurysm. In hemosuccus pancreaticus, bleeding originated from ruptured pseudoaneurysm of splenic artery which escapes through the pancreatic duct into duodenum via the ampulla of Vater.

CASE REPORT

A 49-year-old man presented with abdominal pain, hematemesis and malenic stool. Oesophagogastroduodenoscopy (OGDS) performed was unable to locate the source of bleeding. CT angiogram of the abdominal aorta done revealed a saccular aneurysmal dilatation at the splenic artery measuring 2.0x1.6x2.0cm with thick mural calcification. There was localised extravasation of contrast and hematoma at the retroperitoneum measuring 5.6x5.7x7cm. He had recurrent episodes of hematemesis that required an emergency exploratory laparotomy. Intra-operatively no blood was seen in the peritoneal cavity. There was a large pulsating bulge seen inferior to the pancreatic body, displacing the pancreas superiorly. The pseudoaneurysm cavity collapsed upon clamping of the splenic artery with disappearance of 'yin-yang' sign on Doppler that was suggestive of turbulence flow. This sign reappeared upon releasing of the vascular clamp. The pseudoaneurysm sac was adhered to D4, taken down to reveal a defect suggestive of fistulous communication between the pseudoaneurysm and D4. Spleen-sparing distal pancreatectomy was performed. Ex-vivo examination of the specimen showed that the pseudoaneurysm cavity was filled with layered blood clots. Probing of the pancreatic duct with lacrimal probe showed communication between pseudoaneurysm cavity with pancreatic duct suggestive of possible hemosuccus pancreaticus.



Figure 1: Axial section of CT angiogram showing saccular aneurysm dilatation at the splenic artery with extravasation of contrast (yellow arrow).

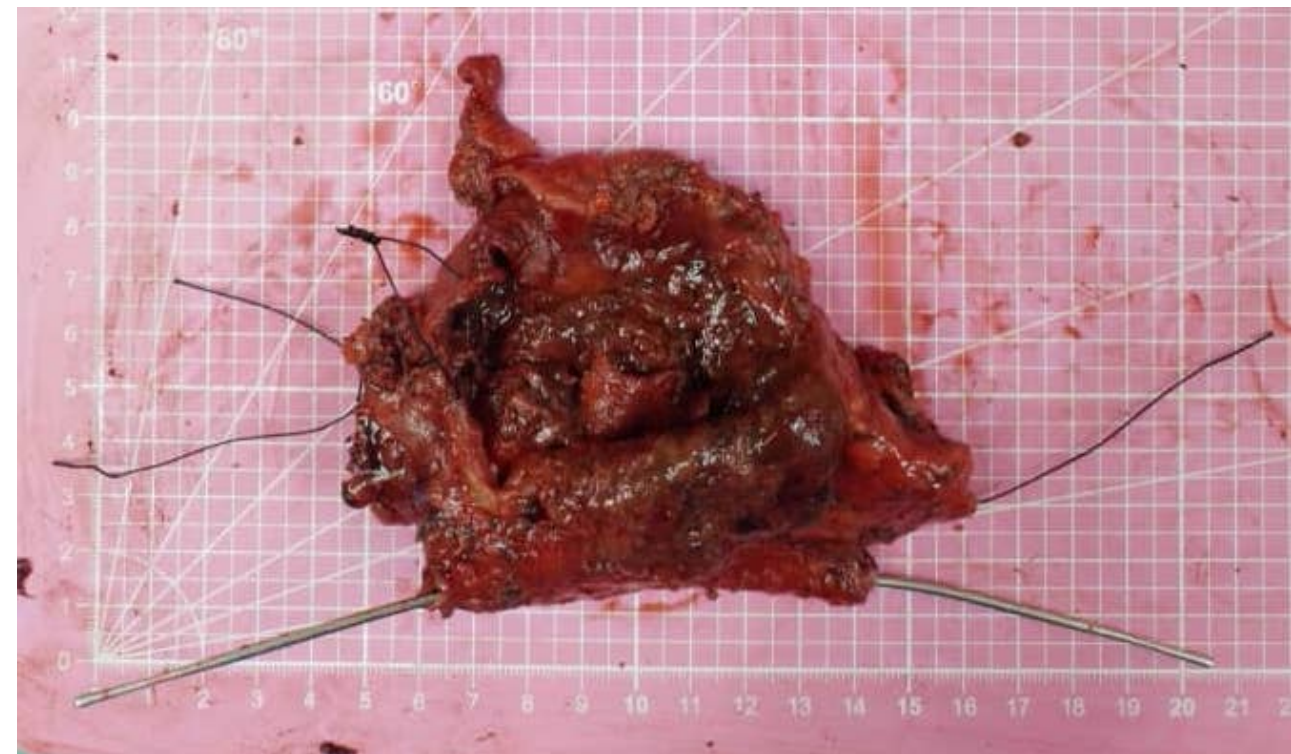


Figure 2: Bivalved specimen showing probed pancreatic duct with fistulous communication to the pseudoaneurysm.

DISCUSSION

Hemosuccus pancreaticus is rare (1 in 1500 cases), affecting mostly males and often misdiagnosed.¹ Pancreatitis accounts for 80% of cases. Aneurysms, particularly of the splenic artery, account for 6-17% of cases. As in this patient, diagnosis of hemosuccus pancreaticus is shown by the communication between the pseudoaneurysm cavity and pancreatic duct. Other causes include pancreatic tumours, iatrogenic factors, infections, trauma, and arteriovenous malformations.¹

The Sandblom triad describes symptoms of abdominal pain, gastrointestinal bleeding with elevated amylase levels.² However, this patient has normal serum amylase level which ruled out pancreatitis in the initial stage.

Diagnosis is challenging due to the condition's rarity, difficult anatomical location, intermittent bleeding, and nonspecific symptoms. Diagnostic modalities like contrast-enhanced CT, angiography, endoscopic ultrasound, ERCP, and upper endoscopy are useful. Laboratory tests may be inconclusive.

Bleeding from the ampulla is often missed due to intermittent pancreatic duct closure. Side-view endoscopes are more effective at detecting ampullary bleeding than forward-view scopes. The presence of intraductal clots, appearing as filling defects, can suggest hemosuccus pancreaticus. Computed tomography (CT) provides quick assessment to locate the possible source of bleeding. CT Angiography has the sensitivity of 96% in identifying the source artery.²

Radiological interventions such as angioembolization, balloon tamponade and stent placement can be done in hemodynamically controlled and stable patients.³

Surgery is indicated in patients who are hemodynamically unstable, unsuccessful embolisation, rebleeding after interventional radiological procedures, or in cases where pathology was not shown in initial angiography. Surgery with laparotomy include distal pancreatectomy and/or splenectomy, central pancreatectomy, intracystic ligation of the blood vessel, aneurysm ligation, and bypass graft.¹

CONCLUSION

Hemosuccus pancreaticus is uncommon but serious abdominal bleeding originating from the pancreas, caused by pancreatic inflammation, tumour, or vascular issues. Identifying and stopping the source of bleeding is key.

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