

CLINICAL IMAGES

Pseudoaneurysm in chronic pancreatitis

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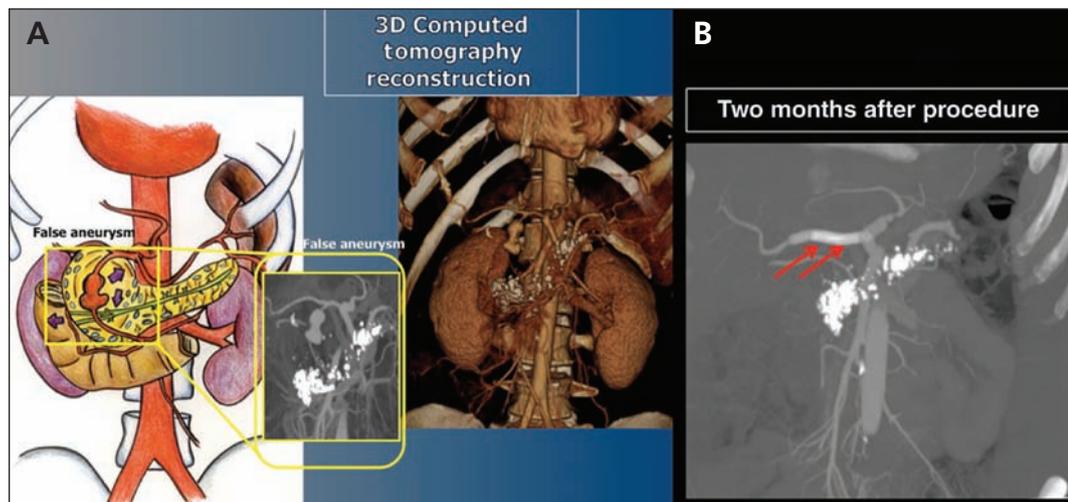


Figure 1: (A) Descriptive image and contrast-enhanced computed tomography showing bleeding false aneurysms that had developed over a pancreatic pseudocyst and are surrounded by multiple pancreatic calcifications. (B) Shrinkage of the false aneurysm and stent patency (arrows) after endovascular exclusion.

A 50-year-old man with chronic pancreatitis was admitted to hospital with increasing midabdominal pain, vomiting and weakness. His history included alcohol abuse, gastric resection and pancreatic pseudocyst. His hemoglobin level was 73 (normal 130–170) g/L. Contrast-enhanced computed tomography (CT) showed a marked enhancement within a large 6.2-cm pancreatic pseudocyst, which was suggestive of an expanding pseudoaneurysm arising from the gastroduodenal artery (Figure 1A). After confirmatory angiography, the 3-cm lesion was successfully excluded by use of a double-covered stent within the vessel. A CT scan performed two months later showed stent patency and shrinkage of the pseudoaneurysm without reperfusion (Figure 1B).

If abdominal pain and anemia develop in a patient with chronic pancreatitis, pseudoaneurysm should be considered. Erosion of the vessel wall from pancreatic enzymes may lead to arterial pseudoaneurysm in 10%–17% of patients with chronic pancreatitis.¹ The severity and duration of pancreatitis and the formation of a pancreatic pseudocyst or abscess are the main risk

factors. Mortality is high (> 50%) if the pseudoaneurysm ruptures.^{1,2}

New endovascular techniques have improved management of this condition. Percutaneous angiographic embolization (coils or glue) is most commonly used, but there are risks of reperfusion and recurrence of bleeding. Covered stenting has been successfully used and has the advantage of maintaining vessel patency and end-organ perfusion. However, this technique requires straight anatomy and suitable vessel diameter (> 5–6 mm),² as in our patient. Rare complications of this technique include arterial dissection and stent thrombosis.^{1,2}

References

1. Volpi MA, Voliovici E, Pinato F, et al. Pseudoaneurysm of the gastroduodenal artery secondary to chronic pancreatitis. *Ann Vasc Surg* 2010;24:1136.e7-11.
2. Fankhauser GT, Stone WM, Naidu SG, et al. Mayo Vascular Research Center Consortium. The minimally invasive management of visceral artery aneurysms and pseudoaneurysms. *J Vasc Surg* 2011;53:966-70.



Please see the following online videos showing contrast-enhanced computed tomography and angiography images:
www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.111417/-/DC1

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