

Splenic artery aneurysm bleeding via the ampulla of Vater

Finding the cause of obscure-overt gastrointestinal (GI) bleeding is often a difficult and time-consuming process. Despite extensive research, up to 20% of patients remain undiagnosed [1,2]. We present the case of a 74-year-old man with a history of acute pancreatitis, who was hospitalized several times in district hospitals for hemodynamically significant, recurrent, GI bleeding.

The patient required transfusion of 46 units of packed-red blood cells and 16 units of fresh frozen plasma in total (the lowest hemoglobin level was 5.4g/dL) over a period of 5 months. Multiple endoscopic examinations revealed the presence of hematin and frank blood and/or

clots in the upper and lower GI tracts, but the exact bleeding source remained unknown.

Computed tomography showed a pancreatic tail pseudocyst and a splenic artery aneurysm (● Fig. 1). Technetium-labeled red blood cell scintigraphy confirmed a focus of increased radiotracer activity in the left upper GI quadrant (● Fig. 2).

Duodenoscopy was performed, during which a blood clot and fresh blood could be seen flowing from the ampulla of Vater (● Fig. 3, ● Video 1). The patient was diagnosed with an aneurysm that was bleeding into the pancreatic cyst, with periodic evacuation of blood via the pancreatic duct into the lumen of the GI

Video 1



Duodenoscopy performed during hemodynamically significant active gastrointestinal bleeding revealed source of bleeding – a large volume of fresh blood and a few clots were flowing from the ampulla of Vater.

tract. Emergency selective celiacography was unsuccessful due to the sharp angulation of the splenic artery (● Fig. 4); thus, a surgical splenopancreatectomy

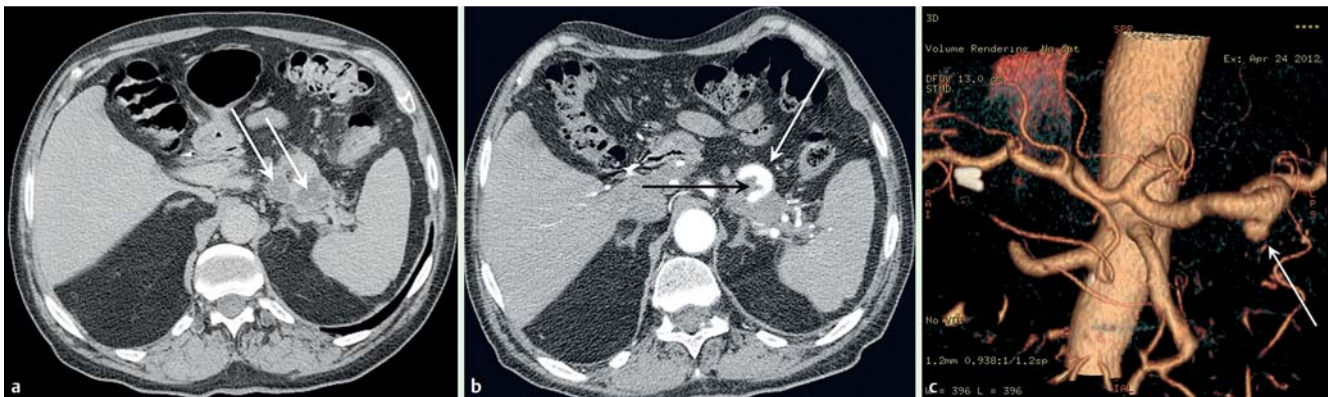


Fig. 1 Computed tomography (CT) images. **a** Contrast-enhanced, multidetector, multiphase CT of the abdomen and pelvis showing chronic pancreatitis, with cysts in the tail (Ø 48 × 28 mm) and corpus (Ø 41 × 11 mm) of the pancreas (arrows). **b** Angio-CT showing aneurysm of the splenic artery (in chronic pancreatitis), 9 × 9 × 12 mm size (neck of the aneurysm 5 mm [black arrow]). The splenic artery was also irregular and angulated (white arrow). **c** Angio-reconstruction of angio-CT performed during active bleeding, showing splenic artery aneurysm (arrow) with radiological suggestion of blood extravasation to the pseudocyst.

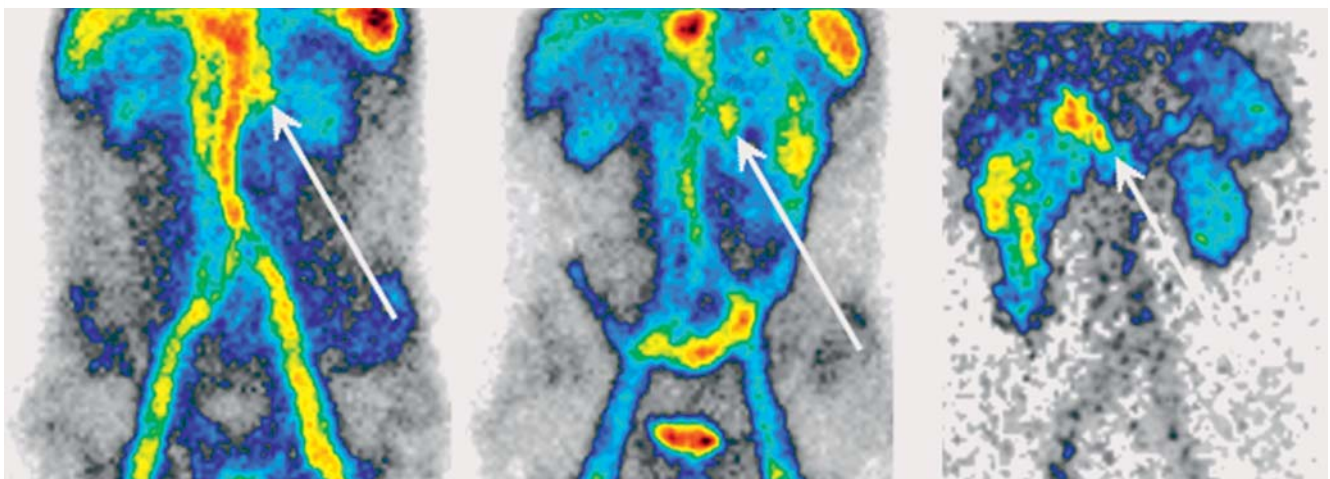


Fig. 2 Scintigraphy showing a focus of increased radiotracer activity in the left upper gastrointestinal quadrant (arrows), even after 24 hours.

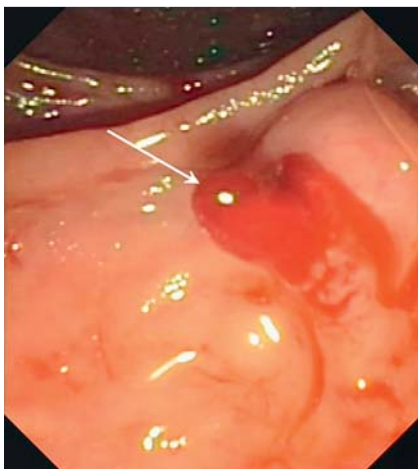


Fig. 3 Duodenoscopy revealed a clot outflow from the ampulla of Vater (arrow).

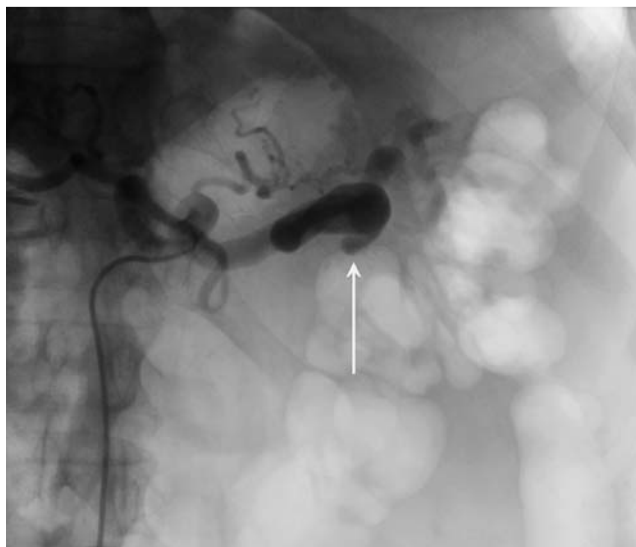


Fig. 4 Selective celiacography (catheterized via common femoral artery) using not only a "classic" angiograph (high-resolution, flat-panel detector) but also high-speed, high-resolution, 3D imaging from a single rotational angiography run (virtual 3D CT), showing splenic artery aneurysm without visible bleeding (arrow).

was performed. After 3 years of follow-up, the patient remains cured. In summary, rare but potentially life-threatening bleeding from aneurysms of the visceral arteries should be suspected, especially in patients with a history of pancreatitis. Repeating endoscopic examinations may visualize atypical, unusual bleeding sources in difficult cases.

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