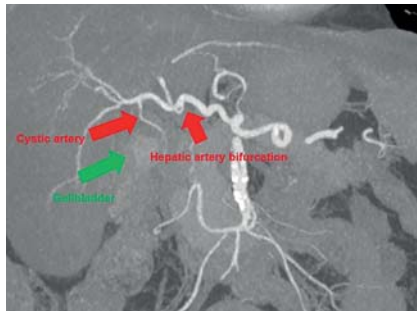


An unusual complication of acute biliary pancreatitis: an incidental discovery of hemobilia

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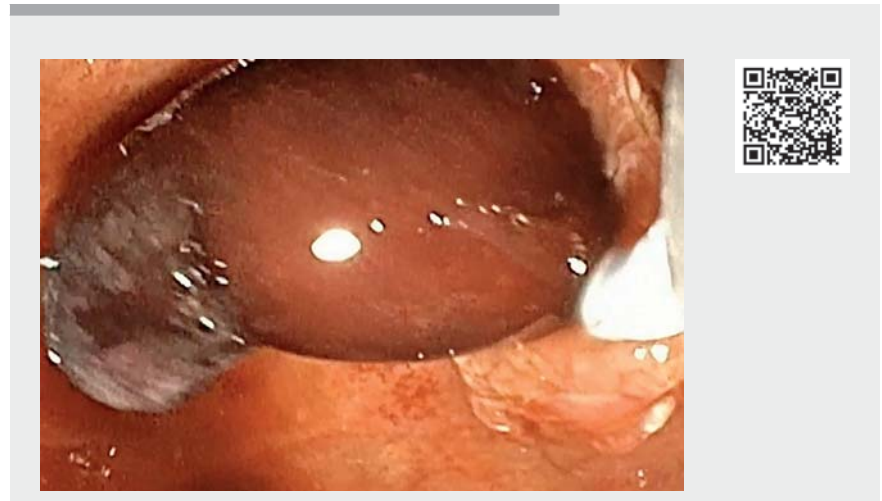


► **Fig. 1** Coronal section of the initial computed tomography scan, performed to assess the severity of the acute pancreatitis, showing the vascular supply of the liver and gallbladder.



► **Fig. 2** Endoscopic retrograde cholangiopancreatography image showing blood coming from the papilla, confirming hemobilia before biliary cannulation had been performed.

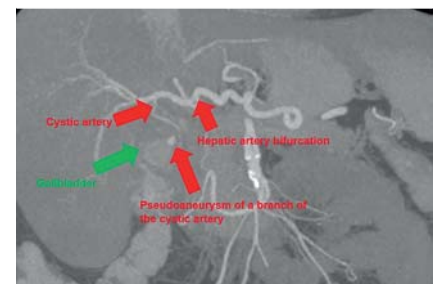
Hemobilia is a rare cause of upper gastrointestinal (GI) bleeding, which is often due to abdominal trauma; infectious or tumoral causes, and portal biliopathy or cholangiovascular fistulas (venous or arterial) have also been described [1]. Hemobilia is most often manifested by right hypochondrial pain, jaundice, and GI bleeding. Its management is mainly based on endoscopy and interventional radiology [2,3], with surgical management used after failure of both techniques.



► **Video 1** Initial findings in a patient with early recurrence of biliary pain; endoscopic ultrasonography and endoscopic retrograde cholangiopancreatography revealing hemobilia; subsequent discovery of a pseudoaneurysm of the cystic artery on a repeat computed tomography scan; angiographic findings and successful embolization.

We report here the case of a 71-year-old patient, with a medical history of chronic lung disease and lung adenocarcinoma, who was admitted to our unit with acute biliary pancreatitis. He was on treatment with clopidogrel for a central retinal vein thrombosis. Abdominal ultrasonography revealed dysmorphic hepatomegaly and microlithiasis in the gallbladder. There was no evidence of bile duct dilatation. A computed tomography (CT) scan showed interstitial edematous pancreatitis with no vascular complications (► **Fig. 1**).

While hospitalized, the patient presented with a recurrence of pain and increased disruption of hepatic parameters. An endoscopic ultrasonography (EUS) found echogenic material in the common bile duct, associated with dilatation of the biliary tract and a hepatized gallbladder. Endoscopic retrograde cholangiopancreatography (ERCP) found blood coming out of the papilla (► **Fig. 2**) and an endoscopic sphincterotomy allowed blood clots to be evacuated. At the end of the procedure, the common bile duct was empty and there was no active bleeding

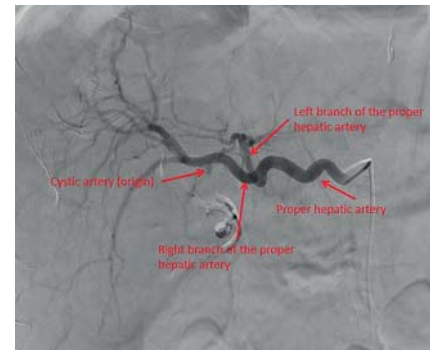


► **Fig. 3** Coronal section from a repeat computed tomography scan, performed 8 days after the first scan and after the discovery of a hemobilia during the endoscopic retrograde cholangiopancreatography, showing a pseudoaneurysm of a branch of the cystic artery.

(► **Video 1**). A post-procedure CT scan showed a pseudoaneurysm of the cystic artery branch (► **Fig. 3**), which had probably developed in the aftermath of the acute pancreatitis. Embolization of this pseudoaneurysm was performed (► **Fig. 4** and ► **Fig. 5**) and led to definitive cessation of the hemorrhage.



► **Fig. 4** Images during embolization of the pseudoaneurysm from the cystic artery showing: **a** the initial angiography from the right branch of the hepatic artery with a Cobra catheter (4Fr); **b** supraselective angiography with Pursue (2.0Fr); **c** a fluoroscopic view; **d** embolization by Onyx.



► **Fig. 5** Angiographic image with a Cobra catheter (4Fr) after embolization; there is no gastrooduodenal artery in this patient, with the duodenal and gastroepiploic branches being supplied by the pancreatic-duodenal arches of the superior mesenteric artery.

In this case, hemobilia was discovered incidentally, with there being no external bleeding and in the context of nonsevere pancreatitis with no underlying vascular disease. ERCP plays an important role in the removal of biliary obstruction and can provide at least temporary hemostasis. Interventional radiology allows etiological treatment after identification of the mechanism of bleeding during angiography [4].

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Competing interests

The authors declare that they have no conflict of interest.

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References

- [1] Berry R, Han J, Girotra M et al. Hemobilia: perspective and role of the advanced endoscopist. *Gastroenterol Res Pract* 2018; 2018: 3670739
- [2] Cathcart S, Birk JW, Tadros M et al. Hemobilia: an uncommon but notable cause of upper gastrointestinal bleeding. *J Clin Gastroenterol* 2017; 51: 796–804
- [3] Parvinian A, Fletcher JG, Storm AC et al. Challenges in diagnosis and management of hemobilia. *Radiographics* 2021; 41: 802–813
- [4] Zhornitskiy A, Berry R, Han JY et al. Hemobilia: historical overview, clinical update, and current practices. *Liver Int* 2019; 39: 1378–1388

Bibliography

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