

Hepatobiliary and pancreatic: iatrogenic hemobilia

Hemobilia is a term that is used to describe bleeding into the biliary tract. The most common cause is bleeding after percutaneous biopsy of the liver. This complication can occur in up to 1% of patients and is more common in the elderly and in those who have multiple biopsies, particularly in the presence of liver tumors. Other causes for hemobilia include liver trauma, percutaneous transhepatic cholangiography, percutaneous biliary drains, hepatic artery or portal vein aneurysms, liver abscesses, gallstones and spontaneous bleeding from liver tumors, particularly hepatocellular carcinomas. In the patient illustrated below, hemobilia was caused by rupture of a pseudoaneurysm of the right hepatic artery that developed after the use of a percutaneous biliary drain.

The patient was a 57-year-old man who was admitted to hospital with obstructive jaundice and cholangitis. A computed tomography (CT) scan showed a mass in the head of the pancreas with bile duct dilatation but there was no evidence of metastatic disease or vascular invasion. As endoscopic drainage failed because of a polypoid lesion in the duodenum, he was treated with a percutaneous transhepatic biliary drain. A pancreaticoduodenectomy was subsequently performed and confirmed an adenocarcinoma of the head of the pancreas with one positive lymph node. Histological evaluation of polypoid lesions in the duodenum revealed

tubulovillous adenomas. The percutaneous drain was removed at the time of operation. Three weeks after surgery, his post-operative course was complicated by episodes of hematemesis and melena. A repeat contrast-enhanced CT scan showed a vascular lesion in the liver consistent with a pseudoaneurysm of the right hepatic artery (Fig. 1). This was confirmed by a CT angiogram (Fig. 2) and bleeding settled after embolization of the appropriate branch of the right hepatic artery. The frequency of hemobilia after percutaneous transhepatic biliary drainage has been estimated at 3%–4%. Hemobilia that occurs soon after the insertion of drains is usually due to trauma to intrahepatic blood vessels. In contrast, hemobilia caused by pseudoaneurysms of the hepatic artery can be delayed for up to 2 years after the procedure. As noted above, treatment involves selective angiography followed by embolization of the feeding artery. With this technique, bleeding can be controlled in up to 90% of patients.

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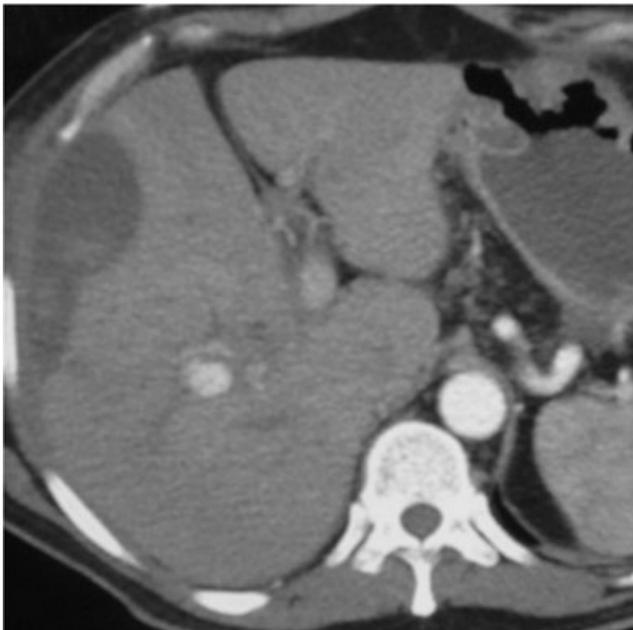


Figure 1

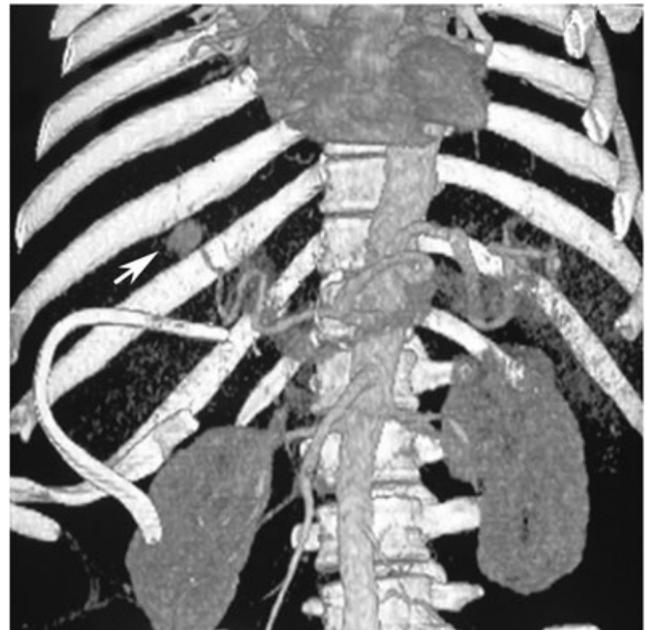


Figure 2