

Hemobilia as a rare complication after endoscopic ultrasound-guided fine-needle aspiration for hilar cholangiocarcinoma

Endoscopic ultrasound-guided fine-needle aspiration (EUS-FNA) is a useful and safe procedure for obtaining tissue samples for the diagnosis of lesions adjacent to the gastrointestinal tract [1,2]. We describe a first case of hemobilia presenting as obstructive jaundice after EUS-FNA for hilar cholangiocarcinoma.

A 67-year-old man presented at our institution with malaise. Abdominal magnetic resonance imaging (MRI) and EUS (EG-530 UT2; Fujifilm, Tokyo, Japan) showed a hilar bile duct tumor (● Fig. 1); however, the patient's serum bilirubin level was normal.

For obtaining tissue samples, we performed EUS-FNA on the hilar bile duct tumor from the duodenal bulb by using a 22-gauge needle (Echotip-Ultra; Wilson-Cook, Winston-Salem, North Carolina, USA). The pathological specimen revealed adenocarcinoma, and the patient was diagnosed with hilar cholangiocarcinoma. After 4 days, he complained of abdominal pain and icterus. A laboratory test revealed a serum bilirubin level of 6.6 mg/dL. Abdominal computed tomography (CT) showed that high-density fluid was retained in the gallbladder and common bile duct (● Fig. 2).

We suspected obstructive jaundice caused by hemobilia. A duodenoscope showed that blood was flowing out from the papilla (● Fig. 3).

We placed a 5-Fr endoscopic nasobiliary drainage (ENBD) tube for biliary drainage. Hemobilia subsided following conservative therapy, and the ENBD tube was removed after 8 days.

Hemobilia is a rare complication after percutaneous liver biopsy [3]. The accidental laceration of an artery or a portal vein is considered to be the likely cause of hemobilia. Although EUS-FNA of bile duct tumors has been reported frequently [4], there were no reports of hemobilia as a complication of EUS-FNA. In our patient,

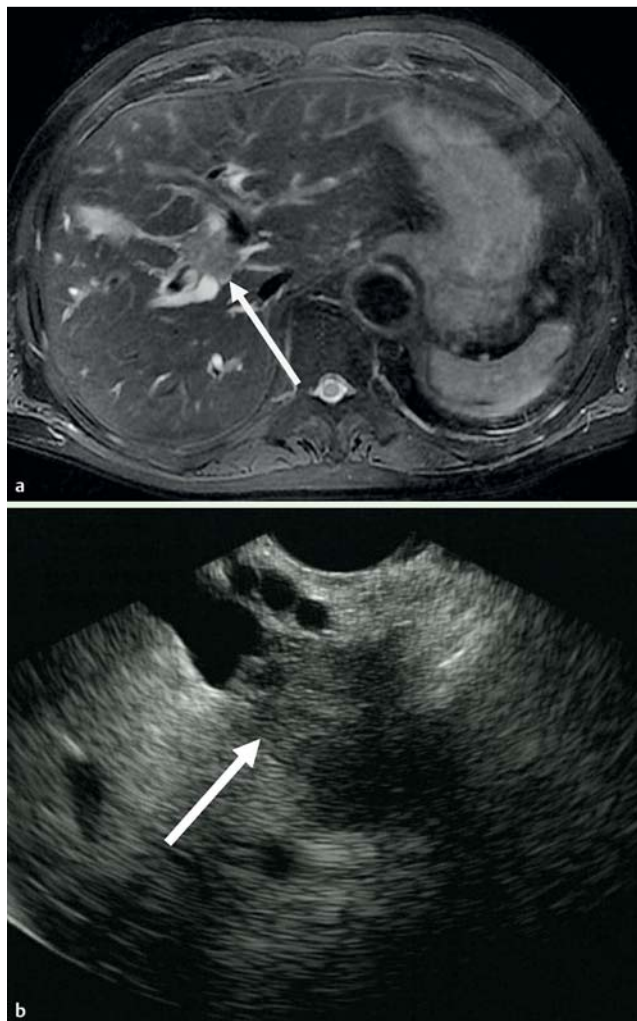


Fig. 1 a Magnetic resonance image showing a low-intensity mass at the hilar region (arrow). b Endoscopic ultrasound (EUS) image showing hypoechoic tumor at the hilar bile duct (arrow).

hemobilia occurred 4 days after EUS-FNA, which was within the previously reported range in which hemobilia developed after liver biopsy [3]. Endoscopic retrograde cholangiopancreatography (ERCP) can successfully visualize blood coming out from the papilla. Although, in our case, hemobilia resolved with ENBD tube insertion, transarterial embolization or surgery may be sometimes necessary for its management [5].

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Competing interests: None

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Fig. 2 Abdominal computed tomography (CT) showing high-density fluid in: **a** the gallbladder (arrow) and **b** the lower bile duct (arrow).

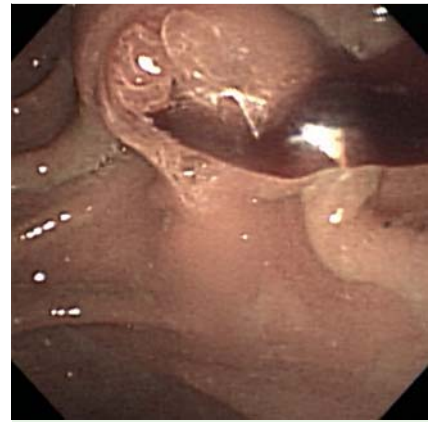


Fig. 3 Endoscopic image showing blood coming out from the papilla.

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