

## Biliary tumor thrombus of hepatocellular carcinoma containing lipiodol mimicking a calcified bile duct stone

A 57-year-old man with liver cirrhosis caused by chronic hepatitis B infection was admitted to Hepato-Biliary-Pancreatic Surgery Division of the University of Tokyo Hospital to undergo preoperative transarterial chemoembolization (TACE) against recurrent hepatocellular carcinoma (HCC) with biliary invasion. A single HCC measuring 3 cm was located in segment VIII of the liver (● Fig. 1). Selective TACE using farmorubicin and lipiodol was performed from the arterial branch of segment VIII. Five days after TACE had been performed, the patient suffered sudden epigastric pain with obstructive jaundice. Computed tomography (CT) revealed a high-density mass in the distal common bile duct (● Fig. 2).

The primary suspect was a calcified bile duct stone. However, neither a calcified bile duct stone nor a gallbladder stone had been shown on the previous CT scan or abdominal ultrasonography. We therefore suspected that a biliary tumor thrombus of HCC containing lipiodol had spontaneously dropped and occluded the common bile duct.

Emergent endoscopic retrograde cholangiopancreatography detected an arrow-shaped defect in the distal common bile duct (● Fig. 3). Intraductal ultrasonography was performed and confirmed a 4×4 mm filling defect without acoustic shadow (● Fig. 4). Because endoscopic papillary balloon dilation (EPBD) is safe and effective for the management of extrahepatic biliary obstruction in patients

with liver cirrhosis, we performed EPBD with a 6 mm balloon [1,2]. After EPBD, yellowish tissue was obtained using a retrieval balloon catheter (● Fig. 5). This tissue was collected and histopathological examination revealed it to be HCC.

It is rare for a fragment of biliary tumor thrombus to drop into the distal common bile duct in a patient with HCC [3]. Our patient showed a rare instance of biliary tumor thrombus of HCC containing lipiodol mimicking a calcified biliary stone at the distal common bile duct.

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Competing interests: None

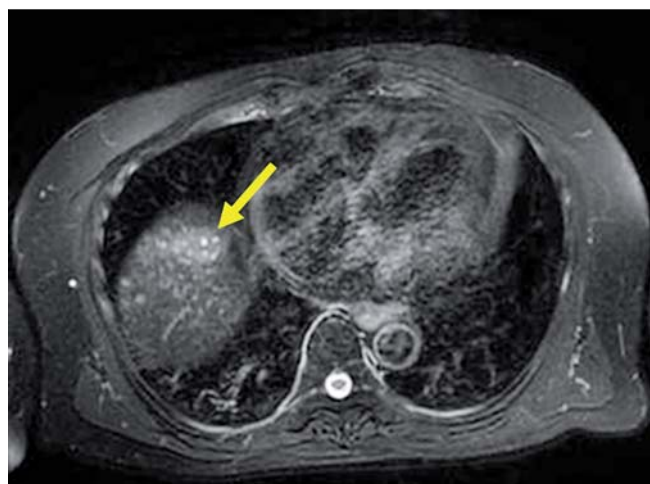
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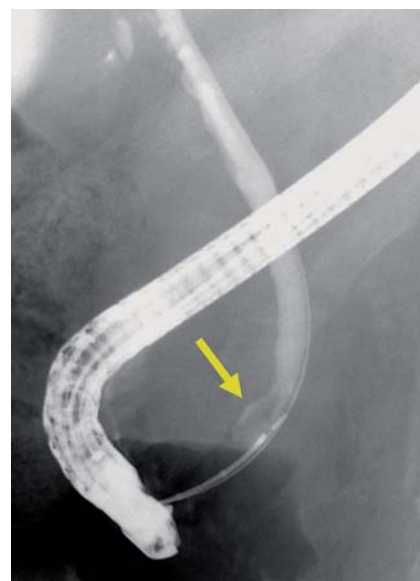
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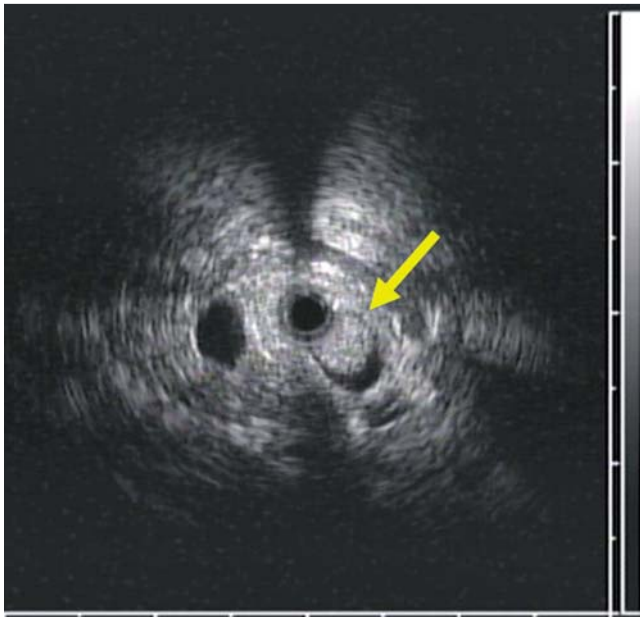
**Fig. 1** T2-weighted magnetic resonance imaging showed a 3 cm high-intensity hepatocellular carcinoma in segment VIII of the liver.



**Fig. 2** Computed tomography revealed a high-density mass in the distal common bile duct.



**Fig. 3** Endoscopic retrograde cholangiopancreatography detected an arrow-shaped defect in the distal common bile duct.



**Fig. 4** Intraductal ultrasonography confirmed a 4×4 mm filling defect without acoustic shadow in the distal common bile duct.



**Fig. 5** Yellowish tissue was obtained using a retrieval balloon catheter.

## References

- 1 Tsujino T, Kawabe T, Komatsu Y et al. Endoscopic papillary balloon dilation for bile duct stone: immediate and long-term outcomes in 1000 patients. *Clin Gastroenterol Hepatol* 2007; 5: 130–137
- 2 Sasahira N, Tada M, Yoshida H et al. Extrahepatic biliary obstruction after percutaneous tumour ablation for hepatocellular carcinoma: aetiology and successful treatment with endoscopic papillary balloon dilatation. *Gut* 2005; 54: 698–702
- 3 Kogure H, Miyabayashi K, Tsujino T et al. Spontaneous dislodgement of a biliary tumor in a patient with hepatocellular carcinoma. *Endoscopy* 2011; 43 (Suppl. 02): 232–233

## Bibliography

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