An unusual case of recurrent hepatocellular carcinoma presenting as an indeterminate right intrahepatic duct stricture

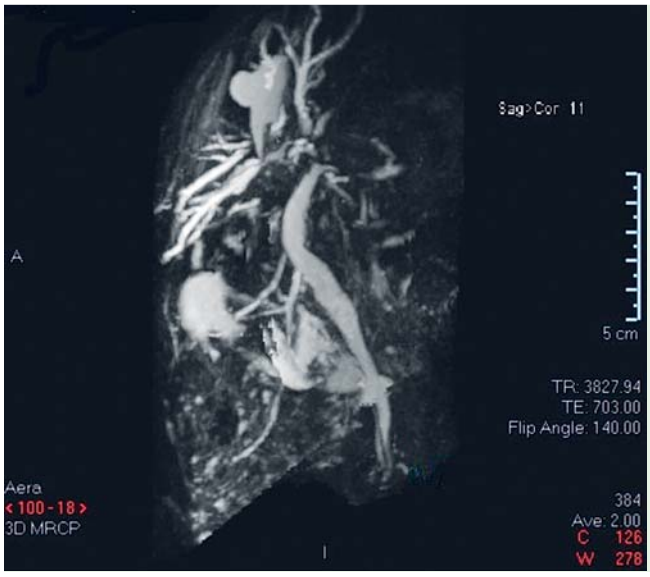
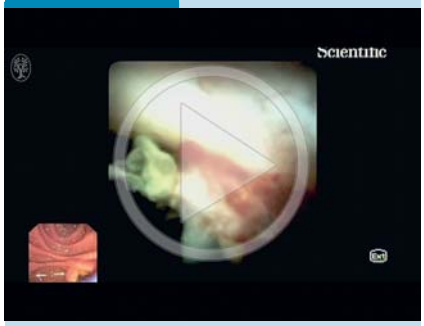


Fig. 1 Magnetic resonance cholangiopancreatography (MRCP) showing non-visualization of the central right intrahepatic duct and a focal defect in the left intrahepatic duct.

Video 1



Spyglass cholangioscopy and biopsy of a recurrent intraductal hepatocellular carcinoma, including views of the initial magnetic resonance cholangiopancreatography (MRCP) scan and the final histology stained with hematoxylin and eosin (H&E) and for immunohistochemistry.

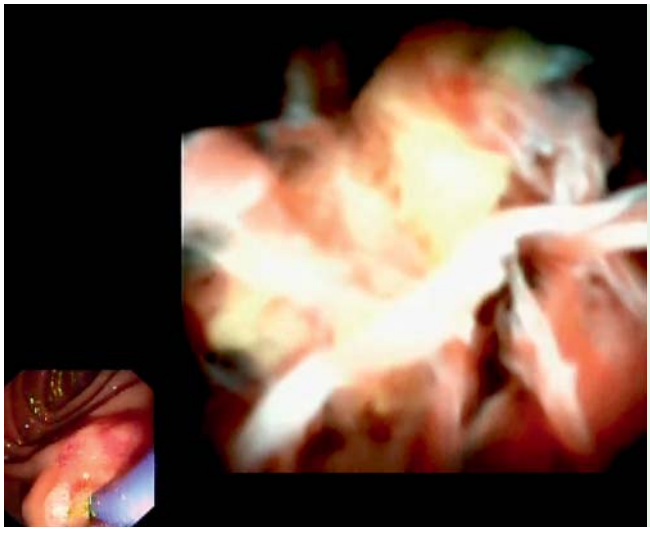


Fig. 2 Cholangioscopic image of a friable mass in the right intrahepatic duct.

A 46-year-old man with segment 8 hepatocellular carcinoma (HCC) from hepatitis C-related, Child–Pugh class A cirrhosis underwent successful hepatic resection. This was complicated by a postoperative bilioma that was treated by percutaneous drainage. He presented again 6 months later with abdominal pain and cholestasis. Computed tomography (CT) of the liver showed no tumor recurrence. Magnetic resonance imaging (MRI) showed post-cholecystectomy status, a mildly dilated common bile duct, non-visualization of the central right intrahepatic duct, a focal defect in the left intrahepatic duct, and proximal dilatation of both intrahepatic ducts (▶ **Fig. 1**). Cholangioscopy using the SpyGlass DS Direct Visualization System (Boston Scientific, Natick, Massachusetts, USA) was performed. Blood clots were visualized in the left intrahepatic duct. A friable mass was visualized in the right intrahepatic duct (▶ **Fig. 2**) and was biopsied (▶ **Video 1**). Bilateral stenting was performed. Histology revealed recurrent HCC (▶ **Fig. 3**).

HCC recurrence tends to present as a mass, so patients routinely undergo surveillance CT or MRI scans at scheduled intervals [1]. Uncommonly intraluminal biliary obstruction may arise postoperatively because of hemobilia, migration of tumor debris, or a tumor mass with continuous growth along the biliary tree [2]. In this case, the only positive finding was the MRI scan that demonstrated an indeterminate stricture with no mass.

The first-generation Spyglass cholangioscopy system, which uses a fiber-optic probe, has been shown to be useful in determining the nature of indeterminate biliary strictures [3]. A systemic review demonstrated that the pooled sensitivity and specificity of cholangioscopy with targeted biopsies for the detection of cholangiocarcinoma were 66.2% and 97.0%, respectively [4]. The second-generation digital Spyglass system has much better cholangioscopic image resolution, thereby facilitating endoscopic diagnosis and targeted biopsies. In this case, it was used to diagnose recurrent HCC with a rare presentation of isolated intrahepatic bile duct stricture with no associated liver parenchymal lesion.

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Competing interests: None

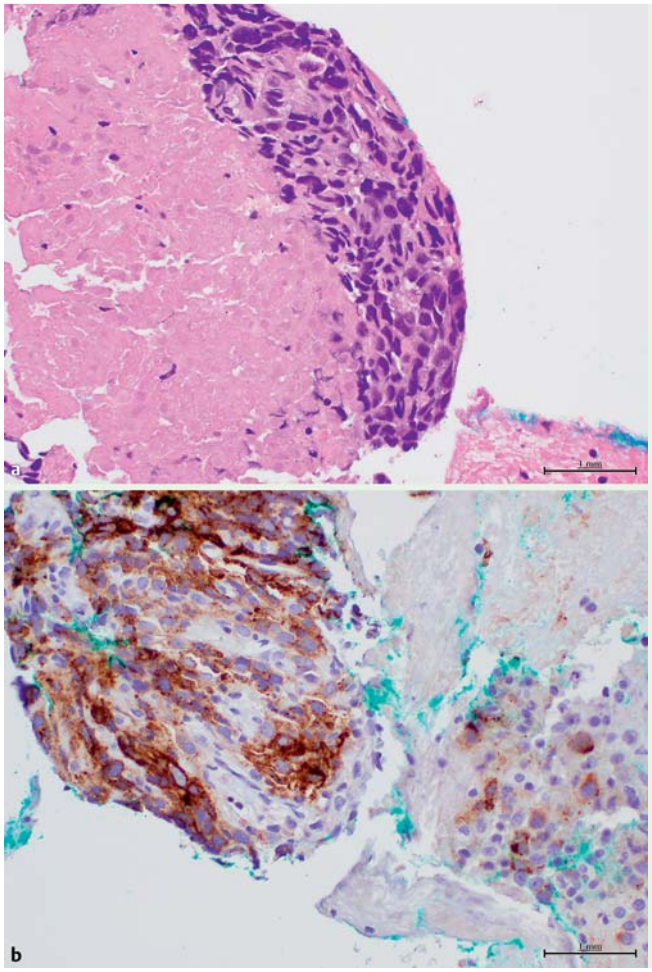

Fig. 3 Histology of the biopsy specimen showing recurrent hepatocellular carcinoma: **a** on hematoxylin and eosin (H&E) staining; **b** with positivity for glycan-3 on immunohistochemical staining.

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Bibliography

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