

## An uncommon presentation of a common cancer



**Fig. 1** Cholangiogram showing a normal appearing common bile duct.



**Fig. 2** Cholangiogram showing the actual bifurcation to be lower than seen in Fig. 1. A filling defect is seen in the right (posterior) hepatic duct.



**Fig. 3** Magnified view of the oval filling defect.

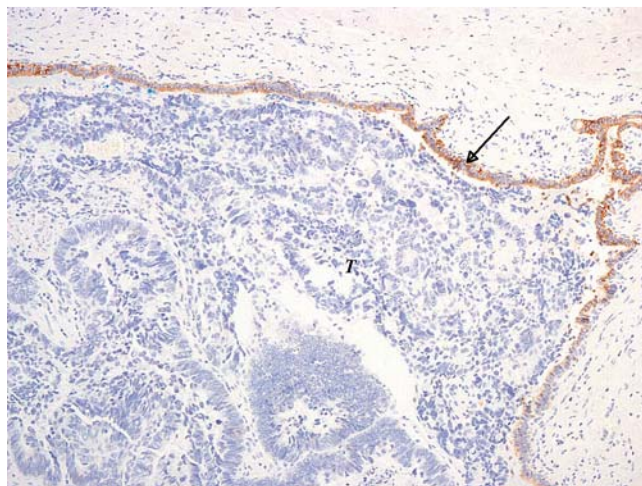
A 67-year-old Caucasian man presenting with episodic right upper quadrant pain and weight loss of 9 kg (20 lb) was found to have elevated levels of alkaline phosphatase (180 IU/mL). An abdominal ultrasound revealed cholelithiasis with no biliary ductal dilatation. Endoscopic retrograde cholangiography (ERC) revealed a normal common bile duct (CBD) and right and left hepatic ducts (Fig. 1).

However, due to persistent episodes of abdominal pain, the patient was referred for a cholecystectomy. Intraoperative cholangiography showed incomplete opacification of the right hepatic duct. A subsequent computed tomography (CT) scan showed dilatation of the intrahepatic ducts in the right lobe of liver without any mass lesion. A repeat ERC showed that the actual bifurcation of the CBD was in fact lower than thought earlier (Fig. 2).

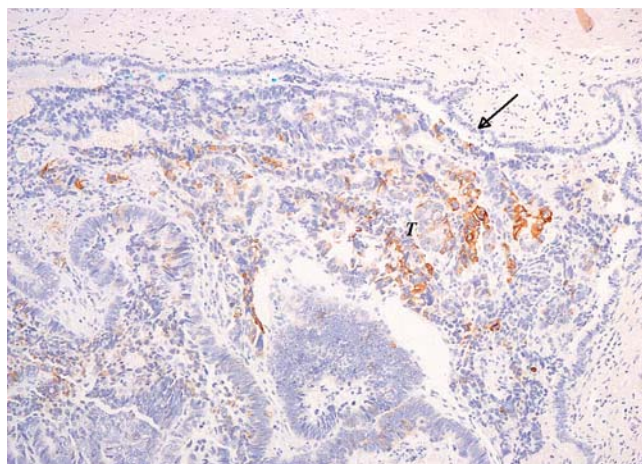
An occlusion cholangiogram showed a 2-cm fixed lesion in the right posterior hepatic duct (Fig. 2, 3).

Brushings and biopsies were obtained from this area and were suggestive of a mucin-producing adenocarcinoma. A right hepatectomy carried out for suspected cholangiocarcinoma revealed an intrabiliary mass lesion, 4.5 × 2.5 cm in size. Immunohistochemistry showed the mass to be negative for cytokeratin-7 (CK-7) and positive for CK-20 (Fig. 4, 5).

The mass was identical morphologically and immunohistochemically to the previously resected colon cancer. A diagnosis



**Fig. 4** Immunohistochemical staining showing the bile duct epithelium to be CK-7 positive (arrow). T, tumor cells.



**Fig. 5** Tumor cells (T) negative for CK-7 and positive for CK-20, supporting the diagnosis of intrabiliary metastatic colonic adenocarcinoma (immunoperoxidase stain, original magnification × 25).

of intrabiliary metastasis from prior colon cancer was thus made and systemic chemotherapy for metastatic colon cancer was initiated. The patient went on develop recurrent metastasis in the liver and died a year later.

A history of rectosigmoid adenocarcinoma prompted immunohistochemical analysis of the resected tumor, which proved to be CK-20 positive and CK-7 negative, consistent with metastatic colon carcinoma [1]. Following hematogenous dissemination to the liver, colon cancer metastasis can occasionally demonstrate an unusual pattern of neoplastic proliferation, where it spreads along epithelial surfaces, mimicking primary biliary neoplasia [2,3]. It is important for gastroenterologists to be aware of this unusual pattern of spread of colorectal cancer. Immuno-

histochemistry could help differentiate cholangiocarcinoma from metastatic colorectal cancer.

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