

Successful biliary drainage with peroral direct cholangioscopy in a patient with Roux-en-Y hepaticojejunostomy for congenital biliary dilatation

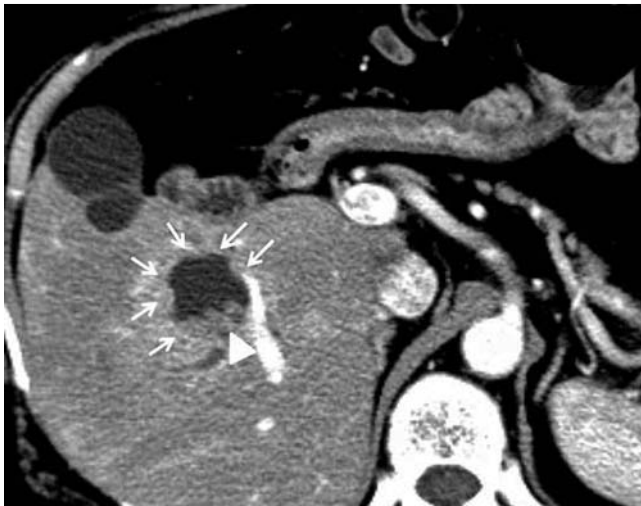


Fig. 1 Contrast-enhanced computed tomography shows a limited cystic dilatation of the posterior bile duct (arrows) with multiple stones (arrowhead) and peripheral enhancement of the cystic dilatation.

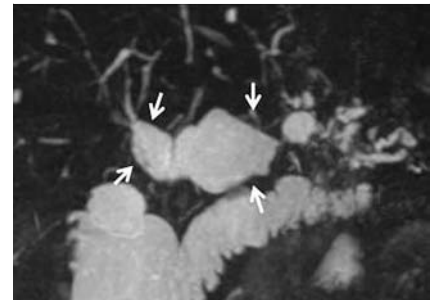


Fig. 2 Magnetic resonance cholangiopancreatography shows dilatation of both the right and left intrahepatic bile ducts (arrows) that is congenital biliary dilatation (Todani type IV-A).

The diagnostic and therapeutic effectiveness of combined double-balloon endoscopy with a short endoscope and peroral direct cholangioscopy with an ultraslim endoscope in patients who have altered gastrointestinal anatomy has been demonstrated [1–5]. We describe successful biliary drainage with a short double-balloon endoscope and peroral direct cholangioscopy in a patient who had cholangitis after surgery for congenital biliary dilatation.

A 61-year-old woman with a surgical history of hepaticojejunostomy and Roux-en-Y reconstruction for congenital biliary dilatation (Todani type IV-A) was admitted because of high fever associated with leukocytosis (white cell count 14100/ μL [normal 3500–8500]) and elevated C-reactive protein (21.1 mg/dL [normal 0.0–0.3]). Contrast-enhanced computed tomography showed a limited cystic dilatation of the posterior bile duct with multiple stones and peripheral enhancement of the cystic dilatation (Fig. 1). Magnetic resonance cholangiopancreatography (MRCP) showed dilatation of both intrahepatic bile ducts that was congenital biliary dilatation (Fig. 2). Because cholangitis of the posterior bile duct was suspected, the patient underwent double-balloon endoscopy for endoscopic retrograde cholangiography with a

short enteroscope (EI-530B; Fujifilm, Tokyo, Japan). The hepaticojejunostomy anastomosis was widely patent (Fig. 3). We sought the posterior branch with the guidewire but were unsuccessful because the intrahepatic bile ducts were widely dilated. Therefore, we exchanged the double-balloon endoscope for an ultraslim endoscope (EG-L580NW, outer diameter 5.8 mm, working channel 2.4 mm; Fujifilm), leaving the overtube in place with balloon inflation.

The ultraslim endoscope was advanced to the hepaticojejunostomy anastomosis and directly inserted into the intrahepatic bile ducts. We identified a membranous stricture of the posterior branch (Fig. 4) and cannulated it successfully. Cholangiography revealed multiple stones in the dilated posterior bile duct (Fig. 5). We performed biliary drainage with a 6-Fr double-pigtail plastic stent (Fig. 6). Bacterial culture of the bile juice revealed *Escherichia coli* overgrowth, and cytologic analysis showed no malignancy. A definitive diagnosis of cholangitis was obtained. Thereafter, the patient's general condition and the results of clinical analyses rapidly improved.

Endoscopy_UCTN_Code_TTT_1AS_2AD

Competing interests: None



Fig. 3 Endoscopic imaging of the hepaticojejunostomy anastomosis shows it to be widely patent.

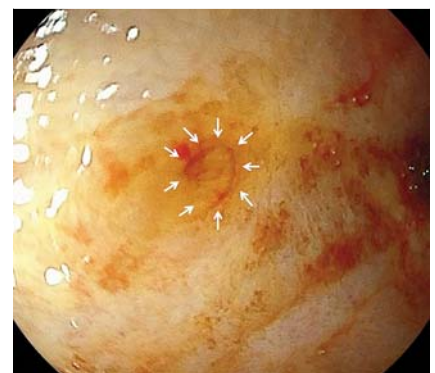


Fig. 4 Endoscopic imaging with an ultraslim endoscope shows a membranous stricture of the posterior branch (arrows).

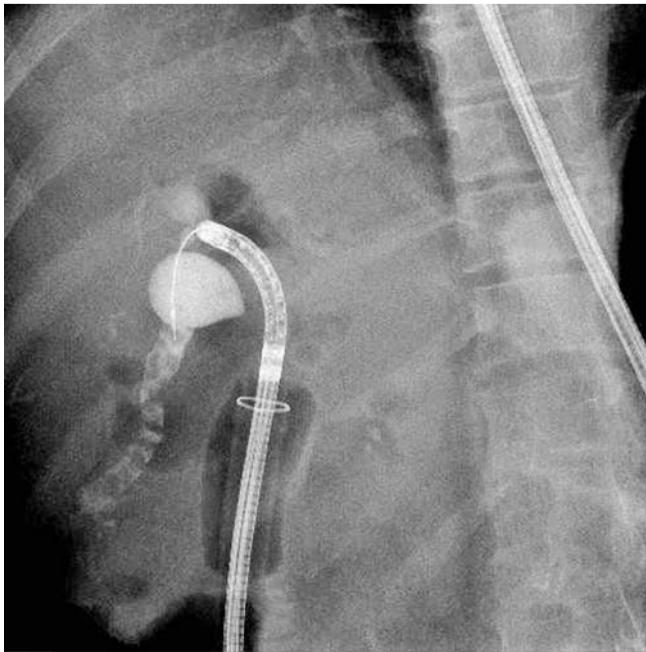


Fig. 5 Cholangiography with an ultraslim endoscope through the overtube reveals multiple stones in the dilated posterior bile duct.

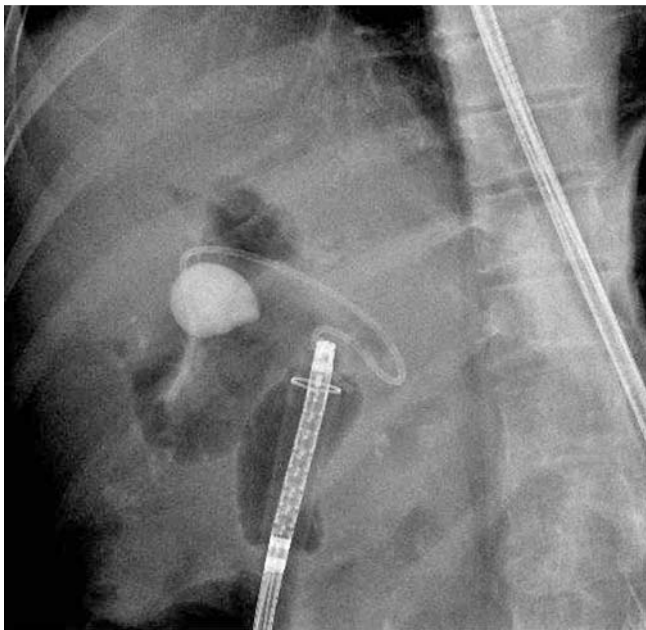


Fig. 6 Biliary drainage is performed with a 6-Fr double-pigtail plastic stent via an ultraslim endoscope.

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Bibliography

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