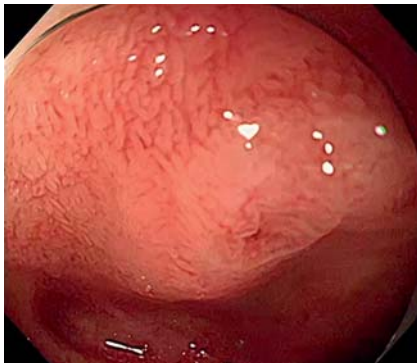
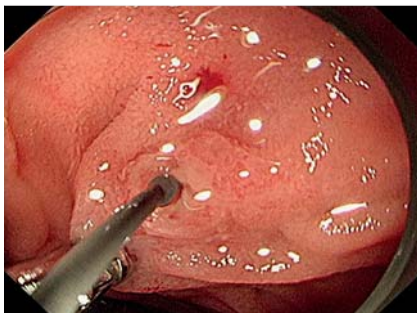


Breakthrough cannulation using “one forceps and one guidewire” technique in a patient with a Roux-en-Y anastomosis

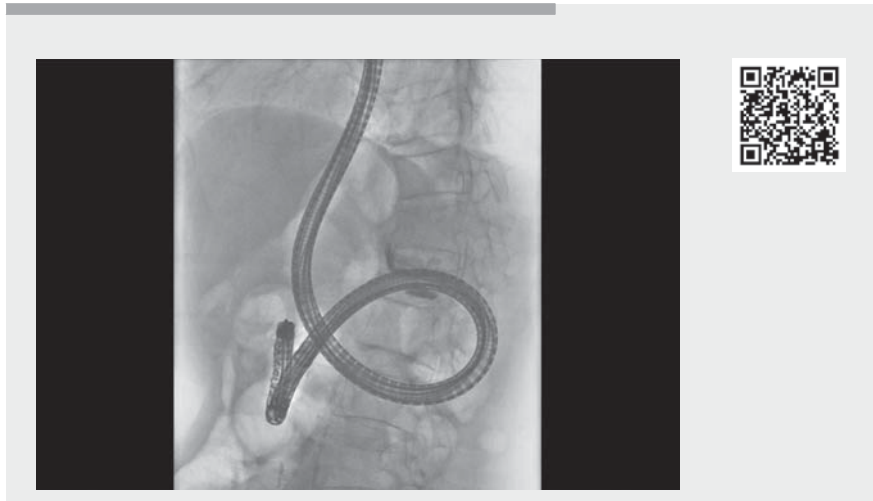


► **Fig. 1** Endoscopic imaging using a short-type single-balloon enteroscope, showing a small papillary orifice in a patient with total gastrectomy with Roux-en-Y anastomosis.



► **Fig. 2** With the periampullary mucosa being cautiously grasped and pulled with an enteroscopy forceps, biliary cannulation using an 0.025-inch guidewire was gently attempted.

A 67-year-old patient visited the emergency department with abdominal pain caused by a bile duct stone. He had previously undergone a total gastrectomy with Roux-en-Y anastomosis because of gastric cancer. His initial blood chemistry results were as follows: C-reactive protein 24.9 mg/dL; total bilirubin 3.1 mg/dL; alkaline phosphatase 74 IU/L, and γ -glutamyltransferase 395 IU/L. Abdominal computed tomography revealed a large stone in the common bile duct (CBD). Due to the Roux-en-Y anastomosis, a



► **Video 1** A cap-fitted enteroscope was used for biliary access in a patient with Roux-en-Y anastomosis. With careful traction on the periampullary mucosa using forceps, biliary cannulation using a guidewire was gently attempted.

cap-fitted short-type single-balloon enteroscope (SIF-Y0004; Olympus Medical Systems, Tokyo, Japan) was used. However, the major papilla was unusually small. A series of attempts at biliary cannulation using an endoscopic retrograde cholangiopancreatography (ERCP) catheter (Boston Scientific, USA) with a pre-loaded guidewire were futile because the orifice was so small and flat (► **Fig. 1**).

In the end, we attempted cannulation using only an 0.025-inch guidewire (straight type, Visiglide 2TM; Olympus), with traction on the periampullary mucosa using an enteroscopy forceps (Fujifilm Co. Tokyo, Japan) [1–3]. The margin of the ampulla was carefully grasped and pulled to straighten the pancreaticobiliary duct (► **Fig. 2**). Then, the guidewire was gently handled manually by an endoscopist and slid into the pancreatic duct. Keeping the guidewire in the pancreatic duct, CBD cannulation was performed using the ERCP catheter. After endoscopic sphincterotomy using a push-type papillotome, a large papillary balloon di-

lation was performed (► **Video 1**). Lastly, the CBD stone was completely extracted using a retrieval balloon catheter. Biliary cannulation in a patient with Roux-en-Y anastomosis is awfully challenging. The barriers are as follows. First, it requires an enteroscope for ampullary access due to the long loop. Second, the inverted anatomy is another hurdle. Finally, cannulation can be extremely hard in the presence of a small orifice or a diverticulum. The technique described here, “one forceps and one guidewire,” can be applied to overcome difficult biliary access in patients with Roux-en-Y anastomosis.

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Competing Interest

The authors declare that they have no conflict of interest.

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Bibliography

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