

Endoscopic retrieval of a proximally migrated biliary plastic stent using a guidewire loop technique



Fig. 1 Abdominal computed tomography with enhancement revealing the biliary stent proximally migrated into the common bile duct.

Endoscopic biliary stent placement is a well-established technique for various indications including biliary drainage. However, it has been shown that approximately 5% of plastic stents placed in the biliary tract migrate proximally [1]. Endoscopic retrieval of proximally migrated biliary stents is technically challenging and occasionally unsuccessful. Several techniques for retrieving proximally migrated plastic stent have been reported [2,3]. We report a novel technique of retrieving a proximally migrated biliary stent using a guidewire loop technique.

A 65-year-old woman visited our institution because of acute cholangitis. She had undergone cholecystectomy 2 years before this admission. Physical examination revealed fever, jaundice, and mild tenderness over the right upper quadrant. Murphy's sign was negative. Laboratory studies demonstrated a white blood cell count of 23 000/ μL (normal, 4500–10 000/ μL), and a total bilirubin concentration of 2.7 mg/dL (normal, 0.2–1.2 mg/dL). The patient underwent emergent endoscopic retrograde cholangiopancreatography (ERCP) for biliary decompression. The

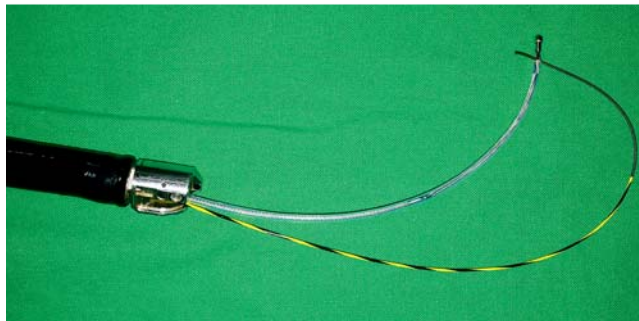


Fig. 2 A retrieval basket grasping the distal end of a guidewire was pushed through the working channel of the duodenoscope.



Fig. 3 Endoscopic retrograde cholangiopancreatography image showing the guidewire slightly pushed forward to form a guidewire loop and used to catch the distal side flap of the biliary stent.

ERCP image revealed common bile duct (CBD) dilatation with small filling defects in the distal CBD. A 7-cm, 7-Fr biliary stent was inserted. However, 2 months after the initial ERCP, the patient presented at the emergency department with fever and abdominal pain. Contrast-enhanced computed tomography of the abdomen revealed that the biliary stent had migrated proximally into the CBD (● Fig. 1). A second ERCP was undertaken to retrieve the migrated stent. A retrieval basket (FG-23Q-1; Olympus Medical Systems Corporation, Tokyo, Japan) grasping the distal end of a 0.035-inch straight guidewire (Jagwire; Boston Scientific Corporation, Natick, MA, USA) was used to retrieve the migrated stent (● Fig. 2). After successful biliary cannulation, the guidewire was slightly pushed forward to form a loop within the CBD (● Fig. 3). By simultaneously pulling

the retrieval basket and the guidewire backward, the distal side flap of the biliary stent was caught by the guidewire loop and the stent was successfully retrieved.

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Competing interests: None

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Bibliography

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