



Wire-guided exchange of an inside stent for complex biliary stricture after living donor liver transplantation

To the Editor,

Biliary strictures are a common complication of living donor liver transplantation (LDLT) with duct-to-duct reconstruction (1). Endoscopic stent insertion is considered to be the first-line treatment for this complication (2,3). To reduce duodenobiliary reflux, plastic stents are placed above the intact papilla ('inside stent') in some centers (2-4). Since the anastomosis of LDLT is more peripheral and more complex, compared with deceased donor liver transplantation, we have occasionally encountered technical difficulties in re-passing a guide-

wire through the anastomotic biliary stricture at the time of inside stent exchange. Here, we report a useful technique for the exchange of the inside stent in a patient with complex anastomotic biliary strictures after LDLT.

A 62-year-old woman with a history of LDLT with duct-to-duct reconstruction using the right posterior liver was referred to our institution. Endoscopic retrograde cholangiography (ERC) confirmed a severe anastomotic biliary stricture. The stricture was dilated using a 4-mm dilation balloon (Eliminator; Bard Interventional

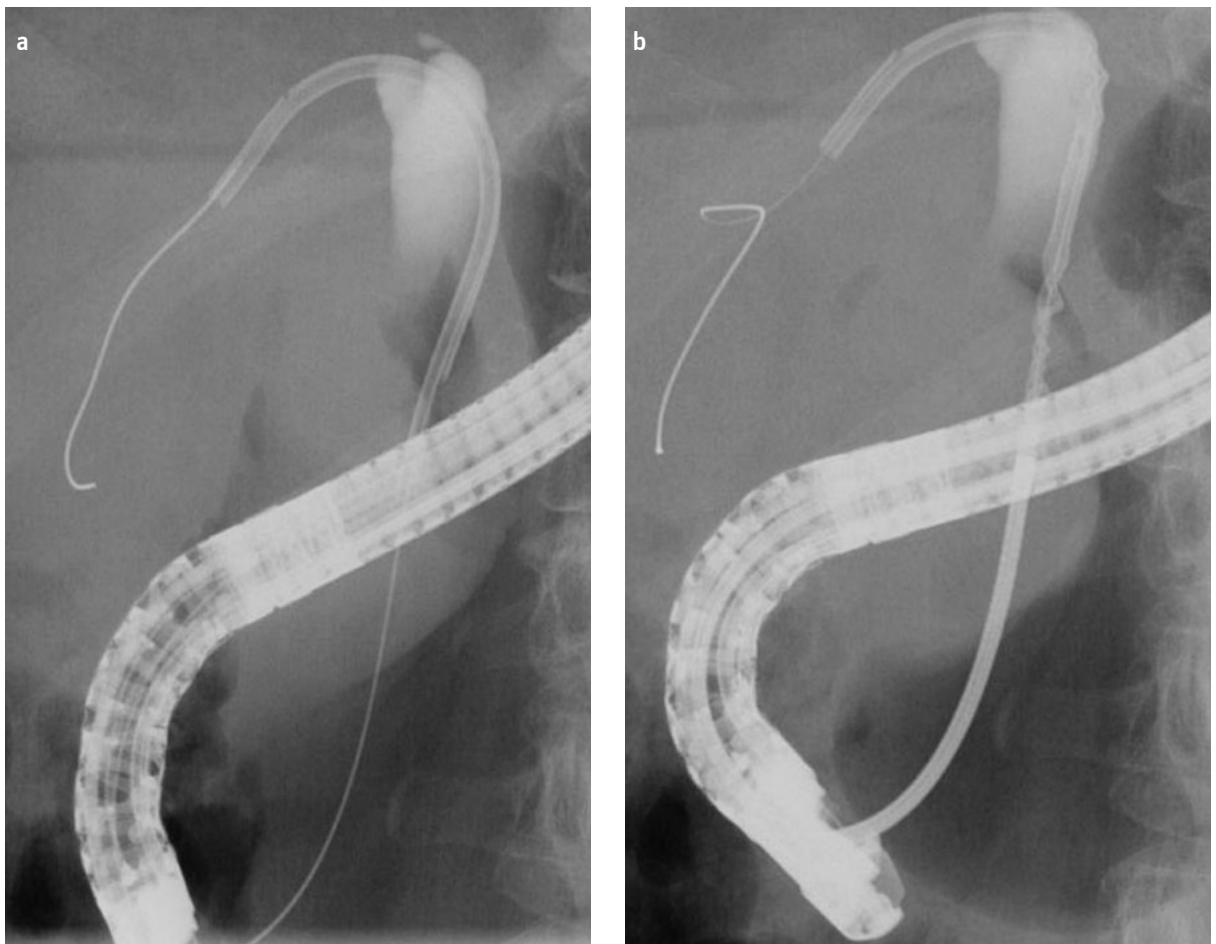


Figure 1. a, b. The key step in wire-guided exchange of the inside stent. A guidewire is passed through the inside stent in situ (a). The stent is subsequently removed using a stent retriever, followed by stent replacement in the usual manner (b).

Products, MA, USA) followed by placement of 7-F endoscopic nasobiliary drainage (ENBD) catheter. Despite repeated balloon dilation combined with ENBD, the stricture was not resolved. Therefore, an 8.5-F plastic stent was placed as an inside stent. At the time of the stent exchange, the anastomotic stricture remained severe, imposing technical difficulties in re-passing a guidewire through the stricture (>60 min).

At the following stent exchange, we introduced the wire-guided exchange technique. The bile duct was cannulated using a cannula with a flexible tip (SwingTip; Olympus, Tokyo, Japan) and a straight-tipped, 0.035-inch guidewire (RevoWave; Piolax Medical Devices, Kanagawa, Japan). The guidewire was easily passed through the inside stent left in situ and was placed deeply into the intrahepatic bile duct (Figure 1a). An 8.5-F stent retriever (Soehendra stent retriever; Cook Medical Co., Tokyo, Japan) (5) was then inserted into the bile duct over the guidewire, and the stent was successfully removed using the retriever with the guidewire retained in the intended bile duct of the graft (Figure 1b). An inside stent was placed, as performed previously. No severe complications related to the procedure were observed.

Advancement of a guidewire through a stent placed entirely into the bile duct under fluoroscopic guidance is technically more difficult. However, we could overcome this technical difficulty by using an ERCP cannula with tip-bending ability and a straight-tip guidewire.

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