

Endoscopic bilateral side-by-side placement of newly developed metal stents for malignant hilar biliary stricture



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Introduction: Although a stent-in-stent deployment technique has been reported to be useful for malignant hilar biliary strictures, this technique is challenged by difficulty in dilating the wire mesh for the insertion of a second stent. Recently, a novel metal stent (Zilver 635®: Cook Medical, NC, USA) has been developed with a 6 Fr delivery system to enable simultaneous side-by-side bilateral hilar deployment.

Case presentation: A 79-year-old patient was admitted to our department due to jaundice. Enhanced CT demonstrated thickening of the bile duct wall at its hilar and distal regions. ERCP revealed biliary strictures at the hilar and distal regions of the bile duct (Figure 1). Biliary drainage with a plastic stent was performed for biliary decompression. Endoscopic biopsy revealed adenocarcinoma at both the hilar and distal regions of the bile duct. Palliative therapy was conducted due to unresectable bile duct cancer. After the

resolution of jaundice, bilateral side-by-side placement of metal stents was attempted.

Technique: A TJF-260V duodenoscope was used (Olympus Medical Systems, Tokyo, Japan). After removal of the initial plastic stent, two guidewires were advanced through the stricture into the bilateral hepatic ducts (Figure 2). Two Zilver 635 stents, 6 cm in length and 8 mm in diameter, were simultaneously placed over the guidewires in side-by-side fashion under fluoroscopic guidance (Figures 3a-c). An additional Zilver stent, 6 cm in length and 10 mm in diameter, was placed in the distal bile duct across the papilla of Vater (Figures 4a-c). The procedure time was 27 minutes. No procedure-related complications occurred. The patient was discharged several days after the procedure.

Discussion: This newly developed 6 Fr delivery system enables simultaneous side-by-side bilateral stent deployment for malignant hilar biliary strictures. Further clinical trials for comparison with other techniques such as stent-in-stent deployment are necessary. ■

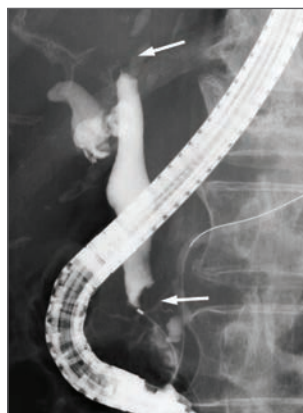
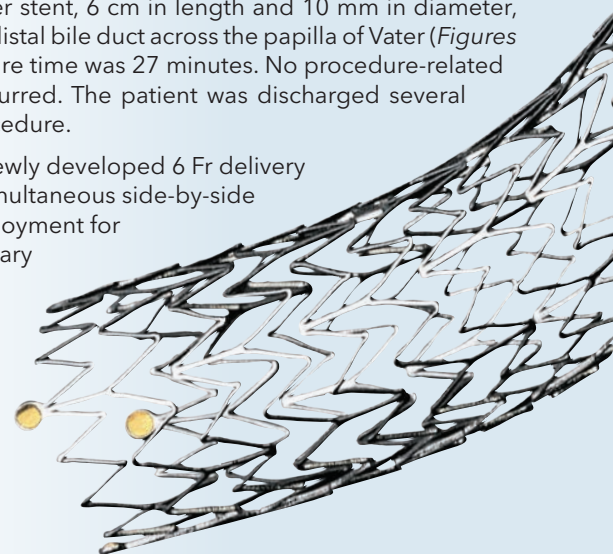


Figure 1



Figure 2

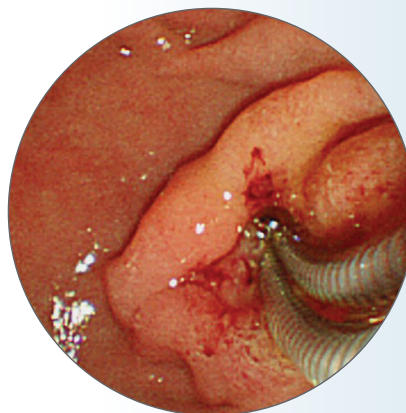


Figure 3a



Figure 3b



Figure 3c



Figure 4a

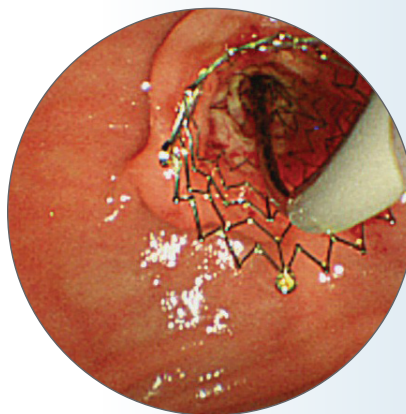


Figure 4b



Figure 4c