Novel 7-mm-diameter double bare metal stent for endoscopic side-by-side stent placement in malignant hilar biliary obstruction

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As palliation for malignant hilar biliary obstruction (MHBO), both endoscopic stent-in-stent and side-by-side (SBS) stent placement are similarly effective.[1] An uncovered self-expandable metal stent is used during SBS in patients with MHBO to keep the intrahepatic biliary branch from being blocked. However, a disadvantage of using uncovered self-expandable metal stents is the increased risk of ingrowth.

By superimposing 2 stents—a novel 7-mm-diameter double bare metal stent with a 6F delivery sheath (EGIS biliary stent braided 6; S&G Biotech Inc, Yongin-si, Korea) (Fig. 1)—a smaller cell size can be achieved, which might prevent ingrowth. This stent has 5-mm-long single bare portions at both distal ends, but the other central segment has an all double bare structure. A double bare stent has reportedly demonstrated longer patency, by preventing ingrowth, than a single bare stent in patients with malignant distal biliary obstruction.[2] In addition, the 6F delivery sheath can be inserted into the bilateral lobe

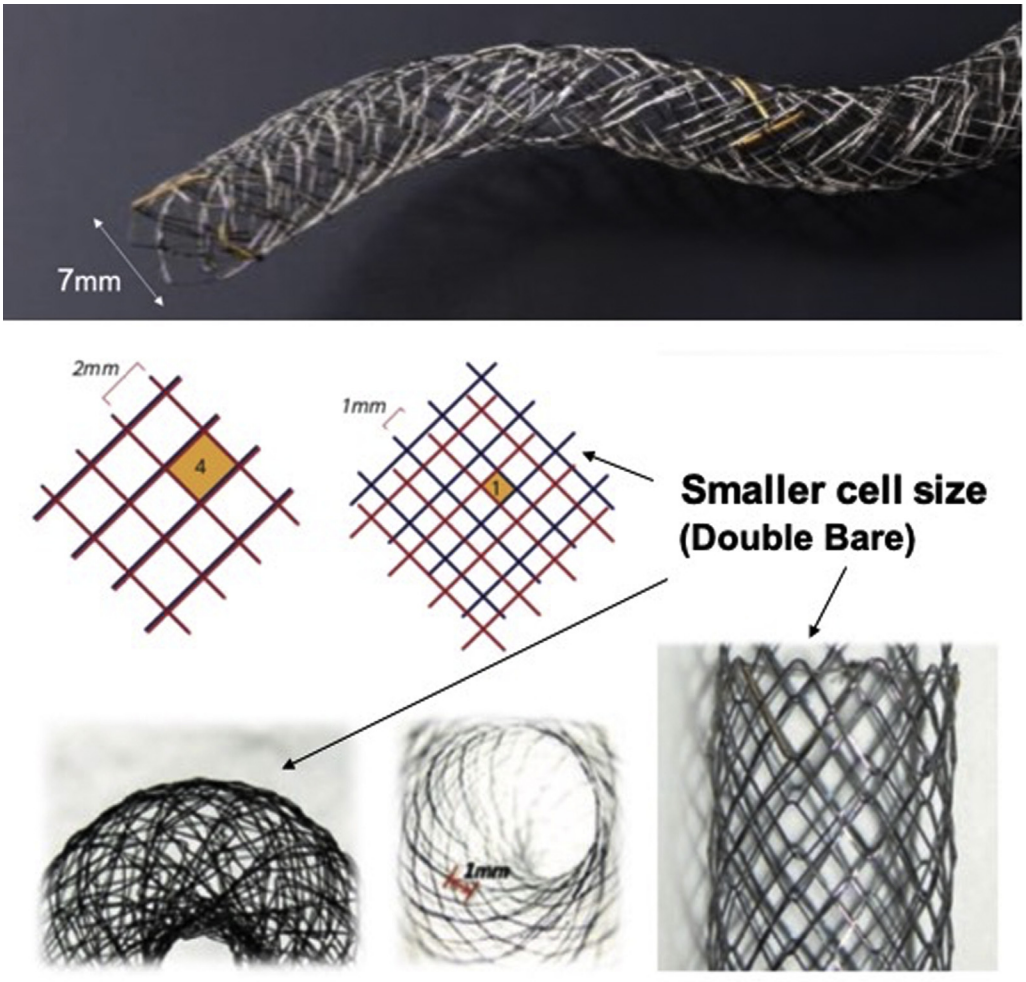

Figure 1. EGIS biliary stent braided 6, double bare; S&G Biotech Inc., Yongin-si, Korea.

Figure 2. Cholangiographic view showing hilar stenosis (Bismuth type II), suggesting malignant hilar biliary obstruction.

Figure 3. Stents deployed in side-by-side fashion were fully expanded 1 week after the procedure.

simultaneously, allowing for easier deployment in SBS placement.[3]

An 83-year-old man with MHBO due to inoperable cholangiocellular carcinoma was admitted to our hospital, and SBS stent placement with double bare metal stents was attempted. After the hilar stricture was evaluated in detail with cholangiography (Fig. 2), a 0.025-inch guidewire was placed bilaterally. After endoscopic sphincterotomy, each delivery sheath was advanced over the guidewire into the right and left hepatic ducts. Subsequently, stents (6 cm long) were individually deployed by careful adjustment of the distal ends of both stents at the same level above the ampulla. Thus, SBS stent placement was successfully performed without any adverse events (Video 1, available online at www.VideoGIE.org). A follow-up evaluation 10 months after the procedure indicated that the patient had not experienced recurrent biliary obstruction (Fig. 3).

To the best of our knowledge, this is the first report of successful SBS stent placement by the use of double bare metal stents in a patient with MHBO. Because the potential advantage of this stent is not proven, additional cases are needed to validate our findings. However, this novel double bare stent designed for MHBO is expected to become a useful option for SBS stent placement because of its small cell size and thin delivery sheath.

DISCLOSURE

All authors disclosed no financial relationship.

Abbreviations: MHBO, malignant hilar biliary obstruction; SBS, side-by-side.

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