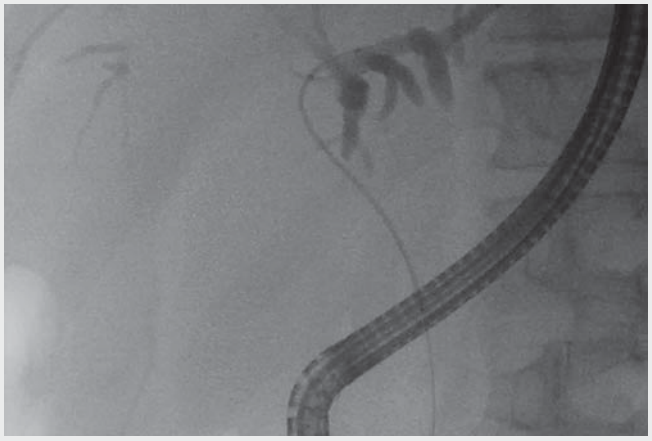
Single-operator metal stent deployment for malignant biliary obstruction using a novel thumbwheel delivery system

▶ **Fig. 1** A novel metal stent (Yabusame; Kaneka Medix, Osaka, Japan). This is a laser-cut stent with thumbwheel delivery system which is ultraflexible and ultrathin (5.4 Fr).



Video 1 Single-operator metal stent deployment using a novel thumbwheel delivery system.

▶ **Fig. 2** While placing the stent, the operator holds the delivery system in the right hand and the shaft of the delivery system above the working channel of the duodenoscope in the left hand. The stent is gradually released using the thumbwheel with the right hand, while its position is adjusted by pulling the shaft with the left hand.

A 57-year-old-man with multiple liver metastases associated with colonic cancer developed obstructive jaundice. Computed tomography and magnetic resonance cholangiopancreatography revealed a hilar bile duct stricture and intrahepatic bile duct dilatation. Therefore, endoscopic placement of a metal stent was planned. As the right hepatic lobe was largely occupied by tumors, unilateral placement in the left intrahepatic duct was attempted. After biliary cannulation, a 0.025-in. guidewire was placed over the stricture. Subsequently, a novel metal stent with a 5.4-Fr thumbwheel delivery system (Yabusame; Kaneka Medix, Osaka, Japan) (▶ **Fig. 1**) was advanced through the stricture over the guidewire. Thereafter, the operator held the delivery system in the right hand and the shaft of the delivery system above the working channel of the duodenoscope in the left hand (▶ **Fig. 2**). The metal stent was gradually released using the thumbwheel, while the stent's position was adjusted by pulling the shaft. Finally, the stent was deployed in an optimal position across the stricture (▶ **Video 1**). The patient's symptoms improved rapidly without any adverse events.

Endoscopic deployment of a biliary metal stent is a common procedure [1], but misplacement sometimes occurs during the release of the stent, especially if the operator or assistant is a trainee. The operator and assistant have to be in sync with each other if misplacement is to be avoided. The present method allows the position of the stent to be controlled by one person during the deployment, which may make it easier to place the stent and adjust its position. This would be a useful option especially in situations where two physicians experienced at deploying metal stents are not available.

Endoscopy_UCTN_Code_CCL_1AZ_2AC

Competing interests

The authors declare that they have no conflict of interest.

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Reference

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Endoscopy 2022; 54: E252–E253
DOI 10.1055/a-1499-6512
ISSN 0013-726X
published online 8.6.2021