

## Simultaneous side-by-side bilateral metal stent placement using a colonoscope in a patient with Billroth II reconstruction

Bilateral metal stent placement for malignant hilar biliary obstruction (MHBO) can be technically challenging, despite the frequent use of self-expandable metal stents (SEMSs) for palliative therapy [1,2]. Simultaneous side-by-side (SBS) stent placement using a thin delivery system is straightforward and has a high success rate [3]. However, simultaneous SBS placement is considered to be technically difficult in patients with surgically altered anatomy because few suitable devices are available. This is the first report of simultaneous SBS stent placement for MHBO using a novel SEMS with a thin delivery system (Zeo Stent V; Zeon Medical, Tokyo, Japan) (►Fig. 1) and a colonoscope in a patient with surgically altered anatomy.

An 86-year-old man with Billroth II reconstruction was diagnosed with MHBO caused by unresectable cholangiocarcinoma (►Fig. 2a). A CF-260AI colonoscope (Olympus, Tokyo, Japan), which has a 3.7-mm working channel, was used for biliary drainage. Two 0.025-inch guidewires (VisiGlide 2; Olympus)

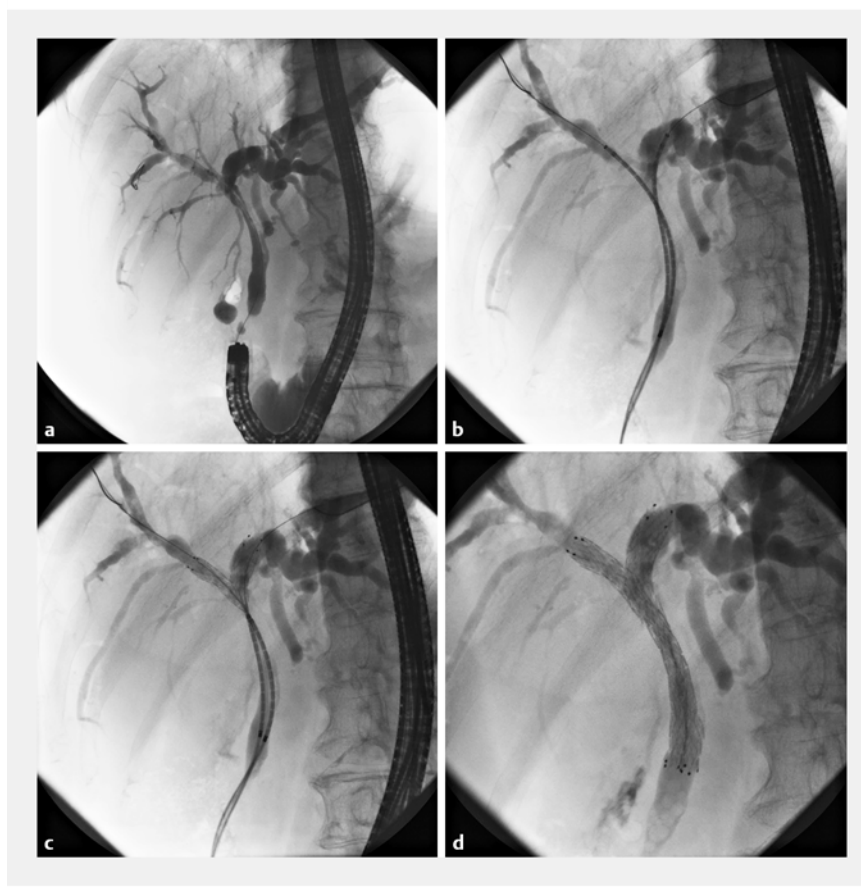
were simultaneously inserted over the guidewires (►Fig. 2b). We used two novel SEMSs (8 × 80 mm) with a 5.4-Fr delivery system (Zeo Stent V). The two SEMSs were deployed successfully without interfering with each other and were placed in the optimal positions using the SBS technique (►Fig. 2c,d; ►Video 1). No adverse events were observed and the total procedure time was 9 minutes. Endoscopic bilateral metal stenting is technically challenging [4,5] because of the complexity of the second SEMS insertion. Simultaneous SBS placement avoids

the risk of placement failure with the second SEMS. However, few devices are suitable for simultaneous SBS placement in patients with surgically altered anatomy. This combination of a novel SEMS with a 5.4-Fr delivery system and a colonoscope offers the potential for bilateral stenting to treat MHBOs in patients with surgically altered anatomy.

Endoscopy\_UCTN\_Code\_TTT\_1AR\_2AK



►Fig. 1 The two novel self-expandable metal stents with 5.4-Fr delivery systems (Zeo Stent V; Zeon Medical, Tokyo, Japan) that can be simultaneously inserted into a colonoscope.



►Fig. 2 Radiographic images from an 86-year-old man showing: a malignant hilar biliary obstructions (Bismuth type IV); b two self-expandable metal stent (SEMS) delivery systems that were simultaneously inserted over the strictures; c two SEMSs after their simultaneous deployment by aligning the distal ends of the delivery systems; d the two SEMSs successfully placed using the simultaneous side-by-side technique.



**Video 1** Simultaneous side-by-side bilateral metal stent placement for malignant hilar biliary obstruction using a colonoscope in a patient with Billroth II reconstruction.

## Competing interests

None

## The authors

**Yasuki Hori, Itaru Naitoh, Katsuyuki Miyabe, Michihiro Yoshida, Akihisa Kato, Naruomi Jinno, Kazuki Hayashi**

Department of Gastroenterology and Metabolism, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan

## Corresponding author

**Itaru Naitoh, MD, PhD**

Department of Gastroenterology and Metabolism, Nagoya City University Graduate School of Medical Sciences, 1 Kawasumi, Mizuho-cho, Mizuho-ku, Nagoya 467-8601, Japan

Fax: +81-52-8520952

inaito@med.nagoya-cu.ac.jp

## References

- [1] Lee TH, Kim TH, Moon JH et al. Bilateral versus unilateral placement of metal stents for inoperable high-grade malignant hilar biliary strictures: a multicenter, prospective, randomized study (with video). *Gastrointest Endosc* 2017; 86: 817–827

- [2] Naitoh I, Hayashi K, Nakazawa T et al. Side-by-side versus stent-in-stent deployment in bilateral endoscopic metal stenting for malignant hilar biliary obstruction. *Dig Dis Sci* 2012; 57: 3279–3285
- [3] Inoue T, Ishii N, Kobayashi Y et al. Simultaneous versus sequential side-by-side bilateral metal stent placement for malignant hilar biliary obstructions. *Dig Dis Sci* 2017; 62: 2542–2549
- [4] Hori Y, Hayashi K, Yoshida M et al. New concept of traction force applied to biliary self-expandable metallic stents. *Endoscopy* 2016; 48: 472–476
- [5] Hori Y, Hayashi K, Yoshida M et al. Novel characteristics of traction force in biliary self-expandable metallic stents. *Dig Endosc* 2017; 29: 347–352

## Bibliography

DOI <https://doi.org/10.1055/a-0624-1947>

Published online: 12.6.2018

*Endoscopy* 2018; 50: E218–E219

© Georg Thieme Verlag KG

Stuttgart · New York

ISSN 0013-726X

## ENDOSCOPY E-VIDEOS

<https://eref.thieme.de/e-videos>



*Endoscopy E-Videos* is a free access online section, reporting on interesting cases and new

techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online.

This section has its own submission website at

<https://mc.manuscriptcentral.com/e-videos>