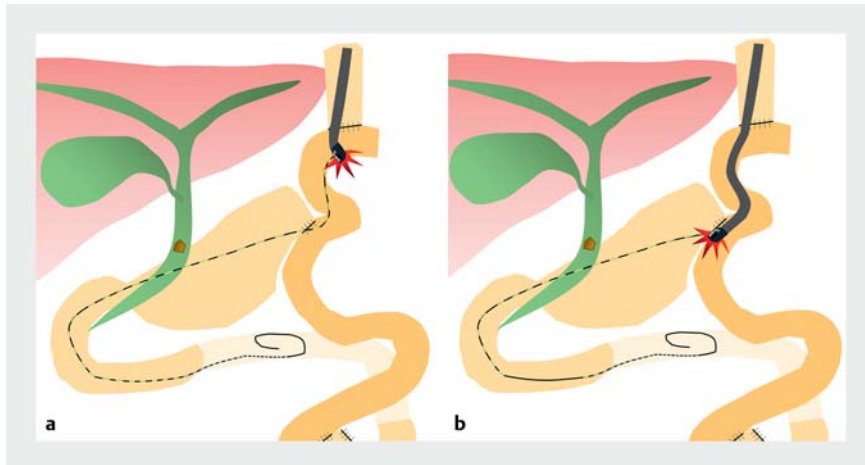


## Sliding tube-assisted ERCP in a patient who underwent double tract reconstruction anatomy after proximal gastrectomy

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► **Fig. 1** Although a technique of guidewire-assisted side-viewing scope insertion has been reported for endoscopic retrograde cholangiopancreatography in patients with proximal gastrectomy followed by double tract reconstruction, the bent and tortuous nature of the interstitial jejunum and the end-to-side anastomosis of the gastric jejunum make insertion of the side-viewing scope difficult.



► **Fig. 2** A large-diameter sliding tube (ST-CB1; Olympus, Tokyo, Japan), which was designed for colonoscopy, has a length of 770 mm, and outer and inner diameters of 16.2 mm and 13.8 mm, respectively.

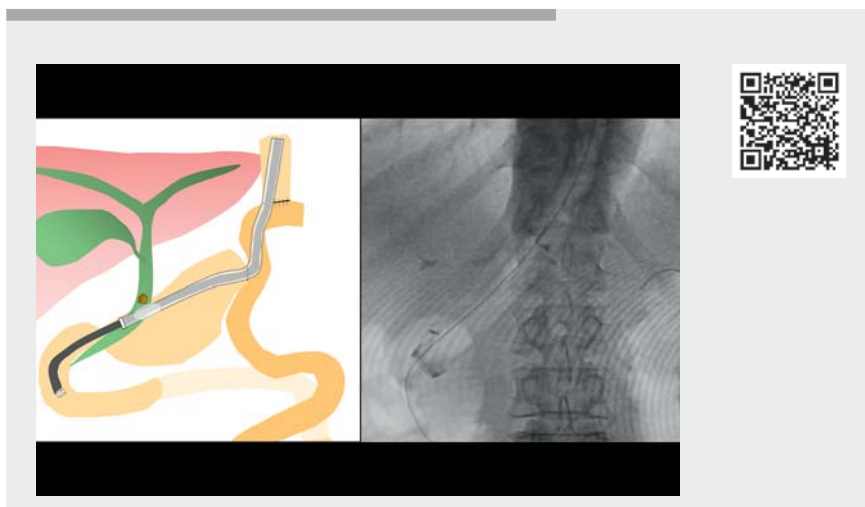
interstitial jejunum and the end-to-side anastomosis of the gastric jejunum make it difficult (► **Fig. 1**).

A large-diameter sliding tube (ST-CB1; Olympus, Tokyo, Japan), which was designed for colonoscopy, has a length of 770 mm, and outer and inner diameters of 16.2 mm and 13.8 mm, respectively (► **Fig. 2**) [5].

Herein, we report a case of sliding tube-assisted ERCP using this single-use sliding tube in a patient with PG-DT.

A 63-year-old man who underwent PG-DT was admitted for treatment of cholelithiasis, for which ERCP was performed. First, guidewire-assisted side-viewing scope insertion was attempted, but the scope was unable to cross the gastrojejunal anastomosis owing to the flexion and meandering of the anastomosis. Therefore, we used a large-diameter sliding tube to secure the side-viewing scope insertion route. An upper endoscope was inserted into the gastric antrum beyond the gastrojejunal anastomosis, with a sliding tube attached to the scope; the scope was then removed, leaving the sliding tube in place (► **Fig. 3**).

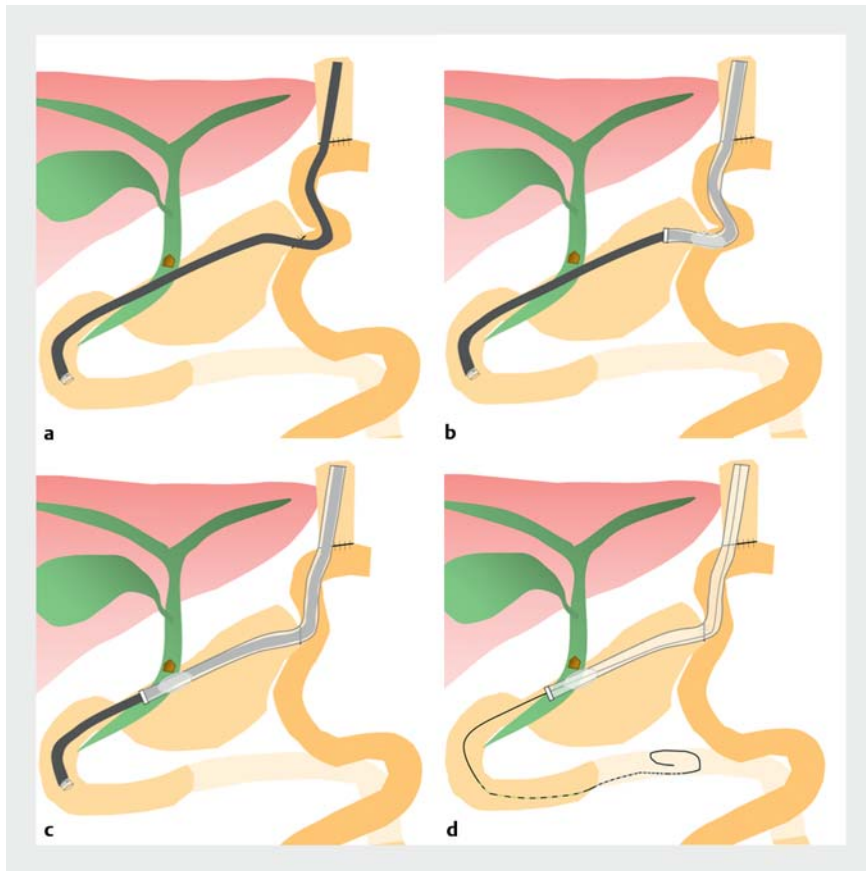
The sliding tube straightened the curvature of the gastrojejunostomy lumen, and the side-viewing scope was successfully passed through the lumen of the tube to the duodenum; the scope stretch was also successful (► **Fig. 4**). Subse-



► **Video 1** Single-use sliding tube developed to improve colonoscopy operability for side-viewing scope insertion in a patient who had undergone proximal gastrectomy followed by double tract reconstruction.

For patients with surgically altered gastrointestinal anatomy, the difficulty of performing endoscopic retrograde cholangiopancreatography (ERCP) has been reported [1–3]. After proximal gastrectomy, double tract reconstruction is

usually performed (PG-DT), and some patients with PG-DT require ERCP. Although a technique of guidewire-assisted side-viewing scope insertion for patients with PG-DT has been reported [4], the bent and tortuous nature of the



► **Fig. 3** An upper endoscope was inserted into the gastric antrum beyond the gastrojejunal anastomosis, with a sliding tube attached to the scope; the scope was then removed, leaving the sliding tube in place.



► **Fig. 4** The sliding tube straightened the curvature of the gastrojejunostomy lumen, and the side-viewing scope was successfully passed through the lumen of the tube to the duodenum; the scope stretch was also successful.

quently, removal of the stone in the common bile duct was successful (► **Fig. 5**, ► **Video 1**). Adverse events, such as damage to the anastomotic site during insertion of the sliding tube, did not occur in this case.

This sliding tube-assisted side-viewing scope insertion technique is considered effective for patients with PG-DT anatomy.

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### Competing interests

The authors declare that they have no conflict of interest.

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► **Fig. 5** Removal of the common bile duct stone was successful.

## References

- [1] Takenaka M, Minaga K, Kamata K et al. Efficacy of a modified double-guidewire technique using an uneven double lumen cannula (uneven method) in patients with surgically altered gastrointestinal anatomy (with video). *Surg Endosc* 2020; 34: 1432–1441
- [2] Takenaka M, Yamao K, Kudo M. Novel method of biliary cannulation for patients with Roux-en-Y anastomosis using a unique, uneven, double-lumen cannula (uneven method). *Dig Endosc* 2018; 30: 808–809
- [3] Takenaka M, Yoshikawa T, Okamoto A et al. Novel sphincterotomy device that orientates blade along the axis of the bile duct in patients with Roux-en-Y anastomosis. *Endoscopy* 2019; 51: E132–134
- [4] Wang XS, Wang F, Li QP et al. Endoscopic retrograde cholangiopancreatography in modified double tracks anastomosis with anastomotic stenosis. *World J Gastrointest Endosc* 2017; 9: 145–148
- [5] Asayama N, Oka S, Tanaka S et al. Clinical usefulness of a single-use splinting tube for poor endoscope operability in deep colonic endoscopic submucosal dissection. *Endosc Int Open* 2016; 4: E614–E617

## Bibliography

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