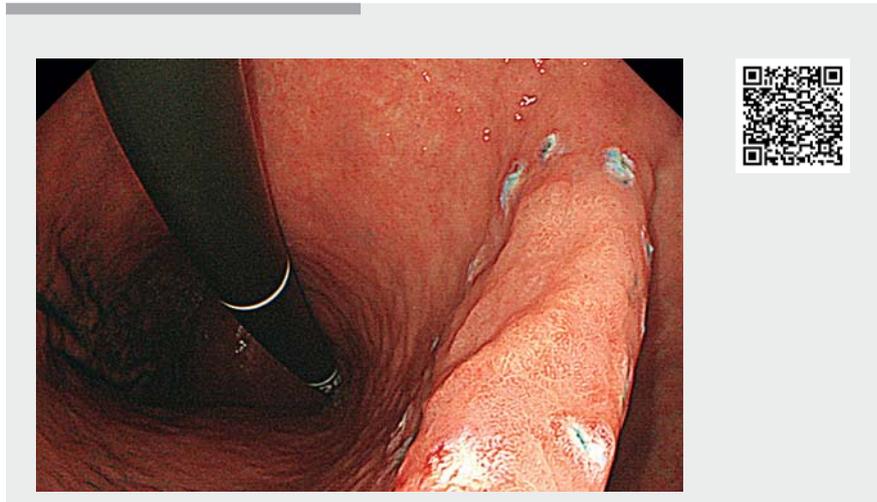


“Floating” method and “lifting up” method: novel techniques of gastric endoscopic submucosal dissection for treating difficult-to-approach lesions

Endoscopic submucosal dissection (ESD) of lesions located on the lesser curvature of the gastric body is challenging because of the difficulty in approaching the lesion [1]. Although using a multibending endoscope or a special attachment device is a good solution in such a situation [2,3], these devices are often unavailable except in specialty institutions because of their limited applications and relatively high cost. Here, we present novel techniques using an attachment balloon usually used in endoscopic injection sclerotherapy (EIS) (▶ **Video 1**; ▶ **Fig. 1**). With the patient in the left lateral position, gravity pulls the endoscope toward the greater curvature of the gastric body, thus pulling the tip of the endoscope away from a target lesion located on the lesser curvature (▶ **Fig. 2 a, b**). However, in a retroflex maneuver using the attachment balloon for EIS, the inflated balloon pushes away the gastric wall of the greater curvature, lifting the endoscope upward (▶ **Fig. 2 c**); while in a forward maneuver, the stomach is partially filled with water, and the buoyancy of the inflated balloon enables the endoscope to float closer to the target lesion (▶ **Fig. 2 d**). We performed ESD using these two approach techniques in four cases.

The procedures were performed using a conventional single-channel endoscope with water-jet function (GIF-Q260; Olympus, Tokyo, Japan). The EIS balloon (TOP Corporation, Tokyo, Japan) was attached approximately 5 cm from the endoscope tip. In all four cases, including a lesion with fibrosis, the endoscope tip successfully reached each lesion closely and tangentially. Curative resection was achieved in all cases. The median size of the resected specimens was 37.5 mm and the median procedure time was 67 min.

Our novel techniques could be effective for ESD of lesions located on the lesser curvature of the gastric body and can be



▶ **Video 1** Gastric endoscopic submucosal dissection using an attachment balloon usually used in endoscopic injection sclerotherapy.



▶ **Fig. 1** Conventional endoscope with attachment balloon for ordinary use in endoscopic injection sclerotherapy.

a favorable option because of their simplicity.

Endoscopy_UCTN_Code_TTT_1AO_2AG

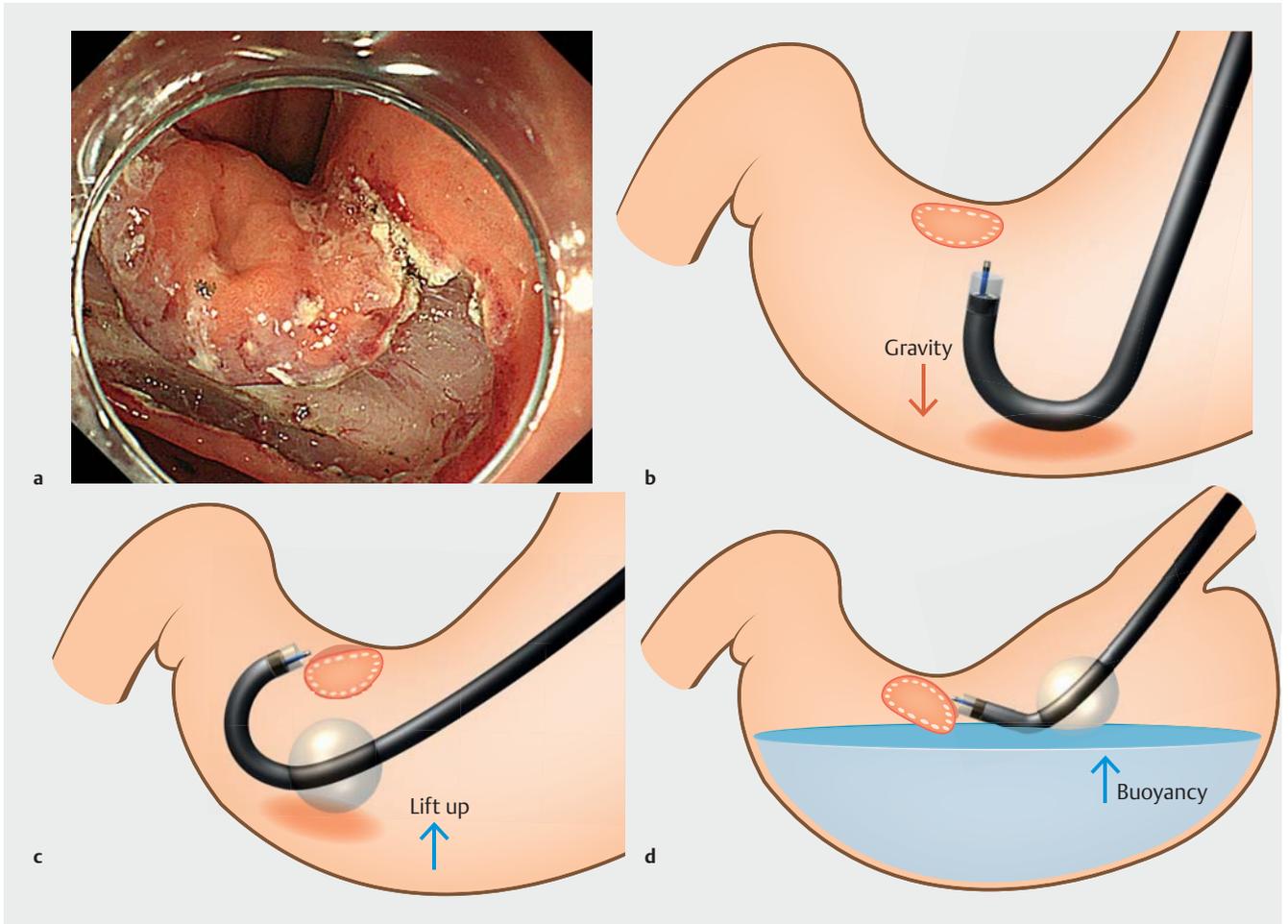
Competing interests

The authors declare that they have no conflict of interest.

The authors

Shunsuke Yoshii, Yoshito Hayashi, Ryotaro Uema, Yoshiki Tsujii, Hideki Iijima, Tetsuo Takehara

Department of Gastroenterology and Hepatology, Osaka University Graduate School of Medicine, Osaka, Japan



► **Fig. 2** **a** Endoscopic view during gastric endoscopic submucosal dissection of a lesion located on the lesser curvature of the gastric body. **b** Conventional endoscopic approach. Gravity pulls the tip of the endoscope away from the target lesion. **c** “Lifting up” method. In a retroflex maneuver, the inflated balloon lifts the endoscope up toward the target lesion. **d** “Floating” method. In a forward maneuver, the buoyancy of the inflated balloon floats the endoscope up toward the target lesion.

Corresponding author

Tetsuo Takehara, MD, PhD

Department of Gastroenterology and Hepatology, Osaka University Graduate School of Medicine, 2-2, Yamadaoka, Suita, Osaka 565-0871, Japan
 Fax: +81-6-68793629
 takehara@gh.med.osaka-u.ac.jp

- [2] Isshi K, Tajiri H, Fujisaki J et al. The effectiveness of a new multibending scope for endoscopic mucosal resection. *Endoscopy* 2004; 36: 294–297
- [3] Kawamura M, Sekine H, Kikuchi T et al. Endoscopic submucosal dissection for gastric neoplasms by using a novel attachment device – a one-sided, expandable balloon. *Gastrointest Endosc* 2011; 74: 415–418

Bibliography

Endoscopy 2021; 53: E324–E325
DOI 10.1055/a-1265-6561
ISSN 0013-726X
published online 23.10.2020
 © 2020. Thieme. All rights reserved.
 Georg Thieme Verlag KG, Rüdigerstraße 14,
 70469 Stuttgart, Germany

References

- [1] Yamamoto K, Tanaka K, Hayashi S et al. A novel handmade “multi-bending endoscope system” for endoscopic submucosal dissection of difficult-to-approach superficial gastric neoplasms. *Endoscopy* 2019; 51: E83–E84

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>