Endoscopic submucosal dissection using ultrathin endoscope for early gastric cancer progressing from pyloric ring to bulb





Video 1 For resecting early gastric cancer progressing from the pyloric ring to the bulb, using an ultrathin endoscope and tip hood allows endoscopic submucosal dissection with a stable view in the bulb.

Endoscopic submucosal dissection (ESD) for early-stage gastric cancer (GC) has been widely adopted. However, GC's progression from the pyloric ring to the duodenal bulb remain challenging. In the antegrade approach, treating the anal side is difficult, whereas in the retroflex approach, the narrow space of the duodenal bulb poses a risk of perforation when standard-diameter scopes are used [1, 2]. Recently, ESD with ultrathin endoscopes has been reported [3]; moreover, devices suitable for procedures with ultrathin endoscopes have become commercially available [4]. We report an efficient and safe ESD for GC that extended into the duodenal bulb by combining the aforementioned devices.

A 73-year-old man was referred to our hospital to treat a depressed-type early GC (> Video 1). The lesion measured 15 mm and extended from the anterior wall of the pyloric ring to the duodenum bulb (> Fig. 1 a). An ultrathin scope (EG-L580NW; Fujifilm Co, Tokyo, Japan) with an ultrathin tip hood (Nichendo, Fujifilm) was utilized to perform ESD for this lesion (**Fig. 1 b**). We utilized a thin resection device (Endosaber Fine; SB Kawasumi Co, Ltd, Tokyo, Japan.) to initiate a semi-circular incision from the anal side with a retroflex view (**> Fig. 1 c**). Next, a partial incision was made on the oral side, and the submucosal layer was dissected with an antegrade view using the pocket creation method (PCM) [2]. A total circumfer-



Fig.1 a Lesion seen from the antegrade and retroflex view. b Devices utilized. c Submucosal dissection of anal side with a retroflex view. d The resected specimen.

ential incision was made. A clip with a thread was attached on the oral side [5], and the lesion was resected en bloc (**> Fig. 1 d**). Hemostatic forceps that could pass through the narrow-caliber scope (RAICHO 2; Kaneka Medix Corp., Osaka, Japan) were utilized to manage intraoperative bleeding.

Utilizing an ultrathin endoscope with an ultrathin tip hood allows ESD to be performed safely and with a stable field of view, even in the narrow space of the duodenal bulb.

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Conflict of Interest

Osamu Dohi received a collaboration research grant from Fujifilm Co., Ltd. All other authors have no conflict of interest to be disclosed.

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References

- [1] Kitamura M, Miura Y, Shinozaki S et al. The pocket-creation method facilitates endoscopic submucosal dissection of gastric neoplasms involving the pyloric ring. Endosc Int Open 2021; 9: E1062–E1069. doi:10.1055/a-1403-1153
- [2] Tashima T, Nonaka K, Ryozawa S et al. Duodenal endoscopic submucosal dissection for a large, protruded lesion located just behind the pyloric ring with a scissor-type knife. Video GIE 2019; 4: 447–450
- [3] Nakamura M, Shibata T, Tahara T et al. Usefulness of transnasal endoscopy where endoscopic submucosal dissection is difficult. Gastric Cancer 2011; 14: 378–384. doi:10.1007/s10120-011-0065-x
- [4] Koseki M, Kikuchi D, Odagiri H et al. Possibility of ultrathin endoscopy in radial incision and cutting for esophageal strictures. Video GIE 2022; 7: 358–360. doi:10.1016/j. vgie.2022.07.015
- [5] Yoshida M, Takizawa K, Suzuki S et al. Conventional versus traction-assisted endoscopic submucosal dissection for gastric neoplasms: a multicenter, randomized controlled trial (with video). Gastrointest Endosc 2018; 87: 1231–1240

Bibliography

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