Precut esophageal endoscopic mucosal resection for cervical esophageal cancer to minimize mucosal defect

A 72-year-old man underwent esophagogastroduodenoscopy (EGD) for heartburn. Two adjacent, iodine-unstained, shallow depressed lesions, 25 mm and 8 mm in size, were found in the cervical esophagus (Fig. 1). Biopsies revealed squamous cell carcinoma (SCC). The patient opted for endoscopic resection. Peripheral endoscopic markings were performed using the tip of a DualKnife J (KD-655; Olympus Tokyo, Japan) (Fig. 2). En bloc resection was achieved for the first lesion after standard endoscopic submucosal dissection (ESD). Precut endoscopic mucosal resection (EMR) was performed for the second lesion (Video 1). A circumferential mucosal incision was performed using the DualKnife J (Fig. 3), followed by cap-assisted EMR (EMR-C) using a single-channel endoscope (Q260; Olympus). Saline with diluted indigo carmine was injected into the submucosa. The gastroscope was withdrawn, and a crescent-shaped electrocautery snare (SD-221L-25; Olympus) was opened within the oblique transparent cap with an internal circumferential ridge (MAJ-290; Olympus). The area within the mucosal incision was suctioned into the cap and captured by tightening the snare. This procedure allowed for en bloc resection of both lesions while preserving non-neoplastic mucosa between the two (Fig. 4). The resected specimens revealed SCC, with deepest invasion to the lamina propria mucosa without lymphovascular invasion, and free margins. No dysphagia occurred post-procedure and follow-up EGD 8 weeks later revealed no post-procedure stricture (Fig. 5).

Extensive ESD is a high-risk procedure for post-ESD stricture, particularly in the cervical esophagus [1]. Standard EMR-C is straightforward and time-saving for small esophageal cancers [2,3]. However, in this case it would have been challenging to maintain optimal non-neoplastic mucosa between the two lesions. ESD for small esophageal cancer is arduous as it is technically difficult to enter the submucosal space. Precut EMR-C was effective in our patient to achieve R0 resection with minimal lateral margin, hence avoiding extensive resection with potential post-procedure stricture.
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Competing interests

The authors declare that they have no conflict of interest.

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