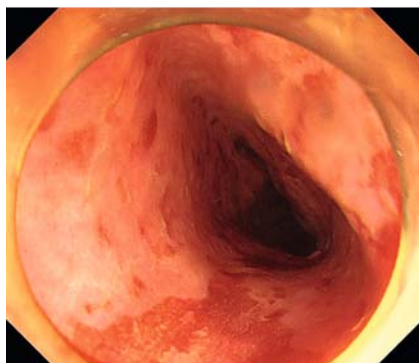


Endoscopic submucosal tunnel dissection with an elastic traction device for a circumferential superficial esophageal neoplasm

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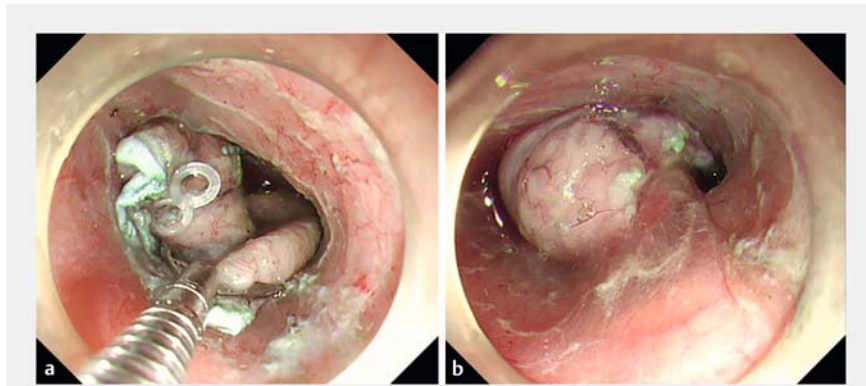
► **Fig. 1** The elastic traction device.



► **Fig. 2** A 6-cm-long whole-circumferential superficial esophageal neoplasm located in the middle thoracic region.



► **Fig. 3** Adequate traction was difficult to maintain as dissection proceeded laterally.



► **Fig. 4** **a** The novel elastic traction device was deployed. **b** Resultant adequate view of the submucosal layer.

Endoscopic submucosal dissection (ESD) is an established treatment for superficial esophageal squamous cell neoplasms (SESCNs) [1, 2]. However, it is time-consuming and challenging for large SESCNS, especially circumferential lesions. Endoscopic submucosal tunnel dissection (ESTD) has been reported as an effective technique for circumferential SESCNS [3, 4]. Herein, we report a case of traction-assisted ESTD using a novel elastic traction device (Micro-Tech, Nanjing, China), consisting of a rotatable soft-tissue clip and an elastic double ring attached to the clip arm (► **Fig. 1**).

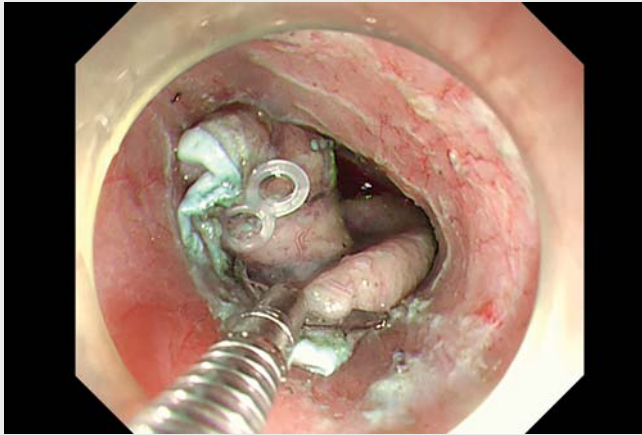
A 59-year-old man underwent ESTD for a 6-cm-long whole-circumferential SESCNS at the middle thoracic region (26–32 cm; ► **Fig. 2**). Following marking and submucosal injection, the distal and then the proximal end of the involved mucosa was cut transversely with a dual knife as per the standard ESTD method. Next, a submucosal tunnel was created from the proximal to the distal end and lateral mucosal resection was performed from proximal to distal. When adequate traction was difficult to maintain as dissection proceeded laterally (► **Fig. 3**), the clip-ring traction device was attached to the oral mucosal flap. Another clip was



► **Fig. 5** En bloc resection was achieved.

attached to the lumen at the anal side of the lesion, hooking the ring attached to the first clip. The target lesion was pulled and an adequate view of the submucosal layer presented (► **Fig. 4**). En bloc resection was achieved without complications. The clip-ring was cut with forceps to retrieve the resected specimen (► **Fig. 5**; ► **Video 1**).

During the procedure of ESTD, the mucosa begins to sag and renders the endoscopic view unclear during lateral submucosal dissection as the tunnel is widened [5]. The novel elastic traction device allows traction to be applied in any direction as the endoscopist needs. It is also small in size and easy to handle without reinsertion of the endoscope. In con-



Video 1 Endoscopic submucosal tunnel dissection with an elastic traction device for a circumferential superficial esophageal neoplasm.

clusion, this novel elastic traction device is useful in facilitating ESTD for circumferential SESCNS.

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Competing interests

The authors declare that they have no conflict of interest.

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