

## Circumferential endoscopic submucosal dissection for long-segment Barrett's adenocarcinoma: the double-tunnel and single clip-and-loop traction method



Circumferential endoscopic submucosal dissection (ESD) is an organ-preserving procedure for large areas of esophageal neoplasia. Currently, various endoscopic techniques have been described [1–4]. Here, we report a successful circumferential ESD of long-segment Barrett's esophagus (C10M12) using the double-tunnel and single clip-and-loop traction method.

A 67-year-old man with recent demolitive head and neck cancer surgery was referred to our center with anemia. Upper gastrointestinal endoscopy revealed a circumferential adenocarcinoma developing within long-segment Barrett's esophagus (C10M12). A subsequent computed tomography scan and endoscopic ultrasound were negative for locoregional lymphadenopathy and distal metastases. The treatment options were discussed with the patient at a multidisciplinary meeting, with the option of esophageal ESD being chosen. ESD was performed with the patient under general anesthesia, using a DualKnife and an insulated tip (IT)-2 DualKnife for mucosal incision and submucosal dissection, respectively (▶ **Video 1**). After markings had been placed and the submucosa injected, a distal mucosal incision was performed to set up the distal limit of the tunnel. A submucosal tunnel was created on the anterior wall, where good access is obtained owing to the effects of gravity, and was extended in the craniocaudal direction. Subsequently, a posterior tunnel was created with a loop-clip applied on the inferior pillar to facilitate access, which is made more difficult by the effects of gravity, and to expedite submucosal exposure.



▶ **Video 1** Novel placement of an esophageal wound vacuum for persistent anastomotic leak.

A 12-cm circumferential en bloc specimen was removed, with the procedure taking 300 minutes. Histology revealed a squamous cell carcinoma with invasion of the lamina propria (T1) and negative margins (R0). Despite triamcinolone injections into the residual submucosal areas, esophageal stenosis was detected after 12 weeks and treated with two pneumatic dilations up to 15 mm. To the best of our knowledge, this is the first report of a circumferential ESD performed via the tunneling method with a single clip-band-line traction.

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### Competing interests

The authors declare that they have no conflict of interest.

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