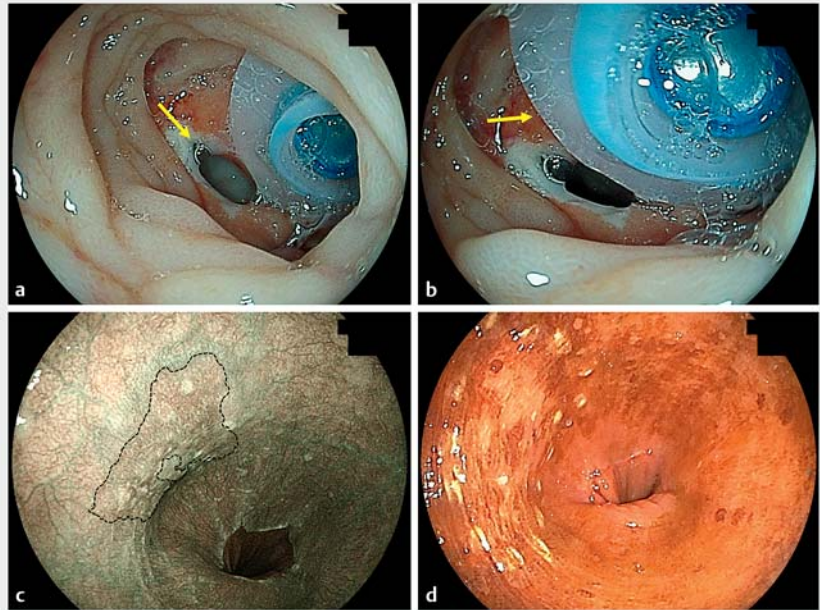


Endoscopic submucosal dissection by transnasal endoscope for esophageal cancer with pharyngoesophageal anastomotic stricture after total pharyngo-laryngo-esophagectomy

Patients with squamous cell carcinoma (SCC) of the head and neck often develop secondary esophageal carcinomas. We describe a successful case of endoscopic submucosal dissection (ESD) using a transnasal endoscope to treat a patient with esophageal cancer with a pharyngoesophageal anastomotic stricture after total pharyngo-laryngo-esophagectomy (TPLE).

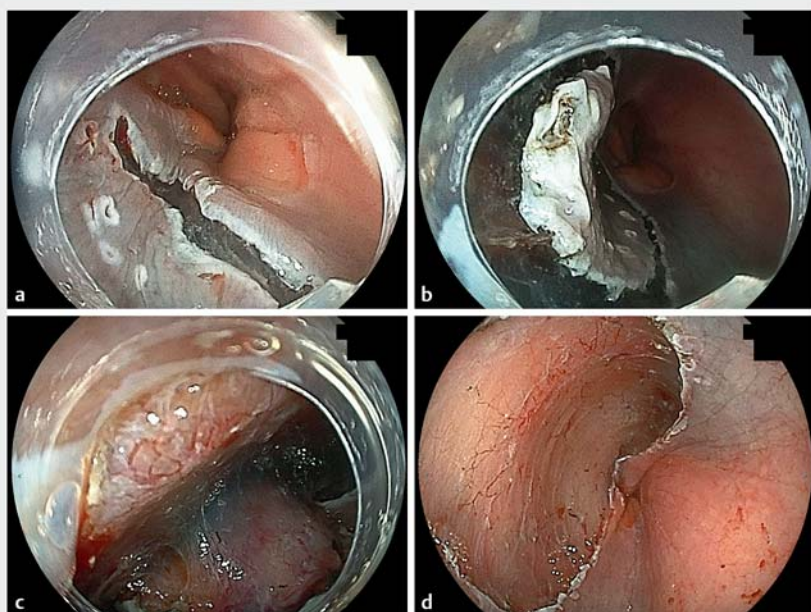
A 60-year-old man was referred to our division for treatment of esophageal cancer. The patient had undergone TPLE for advanced hypopharyngeal cancer 5 years previously, and endoscopy revealed a flat lesion in the lower third of the esophagus (►Fig. 1 a, b). The patient had a pharyngoesophageal anastomotic stricture after the TPLE that could not be passed using a conventional endoscope (►Fig. 1 c). Endoscopic balloon dilation was not possible because of the presence of a voice prosthesis (►Fig. 1 d). Recently, an improved transnasal endoscope, the EG-L580NW (Fujifilm, Tokyo, Japan), has become available, with a 5.8-mm outer diameter and a 2.4-mm forceps diameter (►Fig. 2 a) [1]. An ultrathin



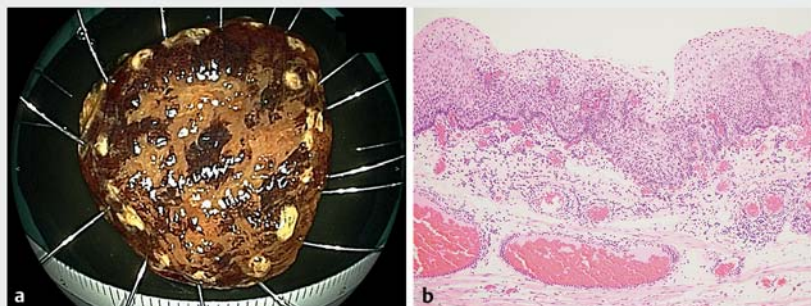
►Fig. 1 a–d A 60-year-old man referred for treatment of esophageal cancer 5 years after undergoing total pharyngo-laryngo-esophagectomy (TPLE) for advanced hypopharyngeal cancer. **a** Blue laser imaging shows a brownish area in the lower third of the esophagus. **b** After chromoendoscopy using Lugol's iodine, markers were placed 2–3 mm outside of the lesion margins. **c** Pharyngoesophageal anastomotic stricture after the TPLE (arrow). **d** A voice prosthesis had been used to restore the voice (arrow).



►Fig. 2 **a** The EG-L580NW (Fujifilm, Tokyo, Japan) has an instrument channel with a 2.4-mm inner diameter. **b** The Souten ultrathin needle-type device has a diameter of 2.35 mm at the insertion sheath. **c** The Raicho hemostasis forceps has a diameter of 2.3 mm at the insertion sheath.



► **Fig. 3** **a** A caudal incision was performed. **b** Circumferential incisions were made using the Souten. **c** Submucosal dissection was performed. **d** En bloc resection was achieved without causing injury to the muscularis propria.



► **Fig. 4** **a** Resected specimen after iodine staining. **b** Histology shows esophageal squamous cell carcinoma limited to the epithelium.

needle-type device (Souten; Kaneka Medics, Tokyo, Japan) and hemostasis forceps (Raicho; Kaneka Medics, Tokyo, Japan) can be used with this endoscope (► **Fig. 2b,c**) [2]. Thus, we performed ESD using a transnasal endoscope to treat the esophageal cancer (► **Video 1**). Circumferential incisions were made using the Souten with Endo Cut I mode (VIO 300D; Erbe, Tübingen, Germany; effect 2, duration 2, interval 2) (► **Fig. 3a,b**). To control bleeding, the Raicho forceps was used in soft coagulation mode at 50 W. Submucosal dissection was performed using the Souten and swift coagulation mode (effect 3, 30 W) (► **Fig. 3c**). Finally, en bloc resection was achieved without injury to the muscularis propria (► **Fig. 3d**). Histological examination revealed R0 resection of the squamous cell carcinoma, which was limited to the epithelium (► **Fig. 4**).

Esophageal ESD using a transnasal endoscope was useful in treating esophageal cancer with an anastomotic stricture that could not be passed using a conventional endoscope.

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Competing interests

The authors declare that they have no conflict of interest.

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Video 1 Endoscopic submucosal dissection by transnasal endoscope for esophageal cancer with pharyngoesophageal anastomotic stricture after total pharyngo-laryngo-esophagectomy.

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