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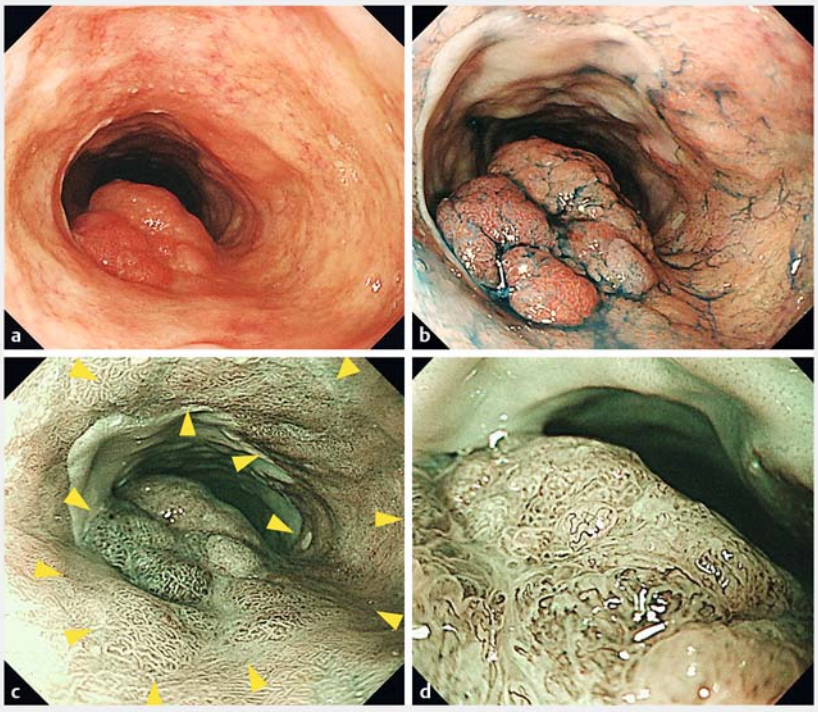
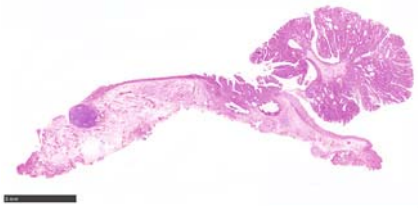
# Cervical esophageal adenocarcinoma arising from heterotopic gastric mucosa, treated with endoscopic submucosal dissection




▶ **Fig. 1** Cervical esophageal adenocarcinoma arising from heterotopic gastric mucosa (HGM). **a** Conventional endoscopy revealed circumferential HGM of the cervical esophagus and a 20-mm protruding lesion in the posterior wall. **b** Indigo carmine spraying revealed a flat lesion in the reddish mucosa, but the demarcation line was unclear. **c** Narrow band imaging (NBI) revealed a clearly demarcated brownish area consistent with the reddish area (arrowheads). **d** Magnifying NBI revealed villous and glandular structures of various sizes and a dense distribution of abnormal capillaries.

Esophageal adenocarcinoma arising from heterotopic gastric mucosa (HGM) is extremely rare [1, 2]. We describe a case of esophageal adenocarcinoma arising from HGM in the cervical esophagus that was treated with endoscopic submucosal dissection (ESD).

A 58-year-old man found to have an esophageal tumor on endoscopy was referred to our hospital for further examination and treatment. Conventional endoscopy revealed circumferential HGM of the cervical esophagus and a 20-mm protruding lesion in the posterior wall. Poorly defined reddish mucosa surrounded the protruding lesion (▶ **Fig. 1 a**). Spraying with indigo carmine visualized the flat lesion in the reddish mucosa, but the demarcation line was unclear (▶ **Fig. 1 b**). Narrow-band imaging (NBI) revealed a clearly demarcated brownish area consistent with the reddish area at 18 – 21 cm from the upper incisors, with villous and glandular structures of various sizes and dense distribution of abnormal capillaries (▶ **Fig. 1 c, d**). Biopsy showed adenocarcinoma, with no evidence of deep submucosal invasion. Therefore, ESD was performed using a dual knife (KD-655L; Olympus, Tokyo, Japan) and an ITknife nano (KD-612; Olympus, Tokyo, Japan) (▶ **Video 1**). The resected specimen measured 51 × 35 mm and contained a macroscopically measured 32 × 27-mm tumor surrounded by HGM. Histologically, the tumor cells showed well-differentiated adenocarcinoma in the muscularis mucosa (▶ **Fig. 2**). Immunohistochemically, the tumor cells were positive for mucin (MUC) 2, MUC5AC, and MUC6.



▶ **Fig. 2** Histologically, tumor cells showed well-differentiated adenocarcinoma in the muscularis mucosa.

The estimated incidence of HGM of the esophagus is 0.75 % – 11 % based on endoscopic studies [3, 4]. Primary adenocarcinoma arising from HMG is rare and several cases of mucosal cancer have been reported [1, 2, 5]. The macroscopic appearance was protruding or polypoid in most cases [5]; therefore, adenocarcinoma should be suspected when a protrusion is identified in HGM in the esophagus.

Endoscopy_UCTN_Code_TTT_1AO_2AG

## Competing interests

None

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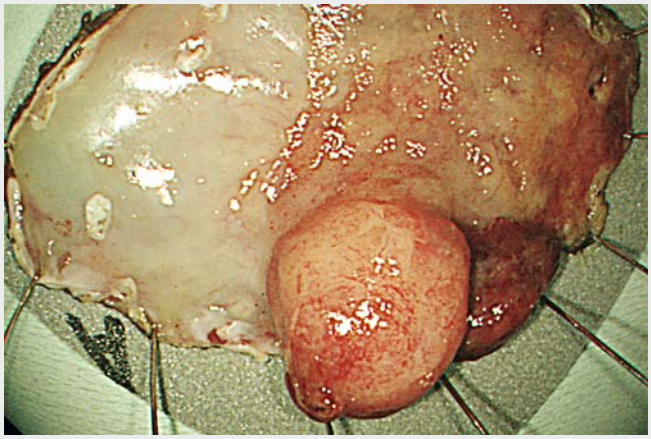

**Video 1** Endoscopic submucosal dissection of cervical esophageal adenocarcinoma arising from heterotopic gastric mucosa.

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**Bibliography**
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