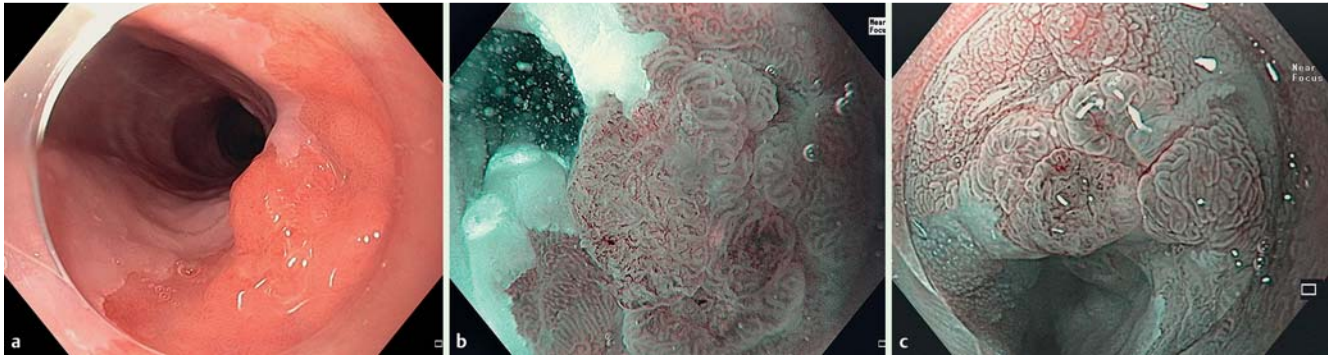
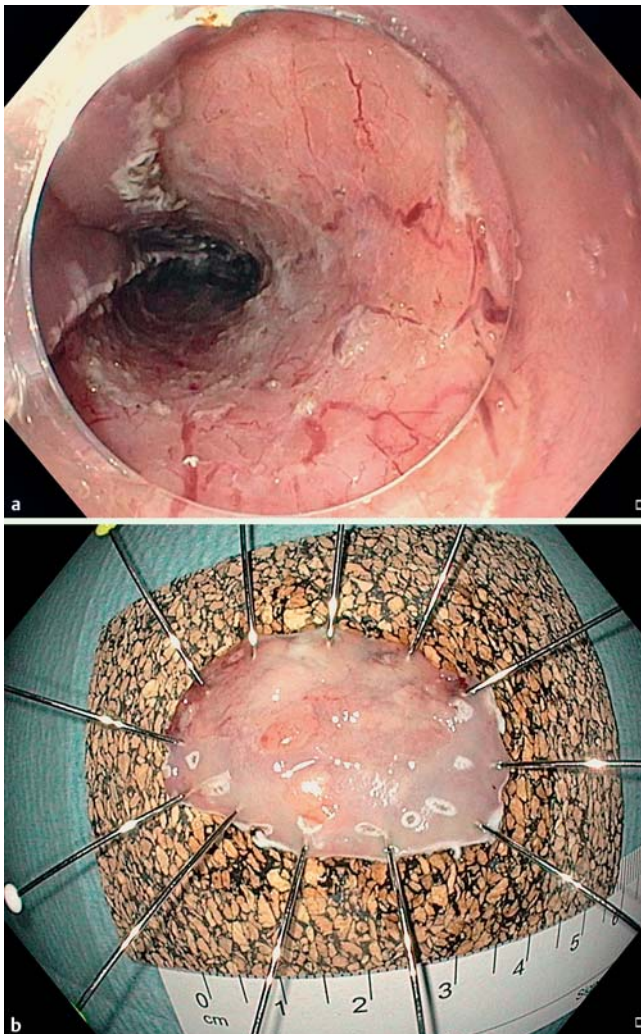


## Adenocarcinoma arising from ectopic gastric mucosa in an esophageal inlet patch: treatment by endoscopic submucosal dissection



**Fig. 1** Endoscopic findings of early adenocarcinoma arising from ectopic gastric mucosa in the proximal esophagus in a 62-year-old man. **a** White light endoscopy shows a semicircumferential area of ectopic gastric mucosa with a nodule. **b** Narrow band imaging (NBI) combined with magnifying and underwater endoscopy shows the irregular surface and irregular vascular pattern of the nodule. **c** Staining with acetic acid confirms the irregular surface pattern of the lesion and the regular surface pattern of the surrounding mucosa.



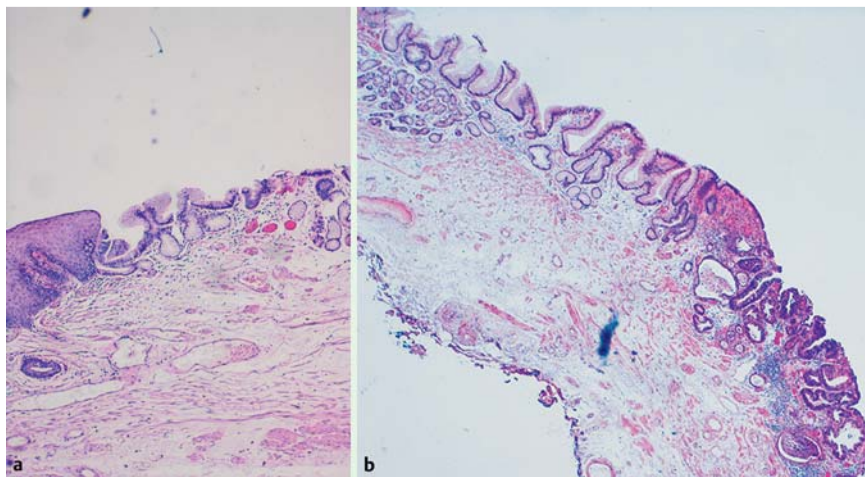
**Fig. 2** Results of endoscopic submucosal dissection (ESD) of early adenocarcinoma arising in an esophageal inlet patch. **a** Resection ulcer in the proximal esophagus after ESD. **b** Resection specimen, 30 × 25 mm in diameter.

A 62-year-old man was referred for further diagnostic work-up and treatment of a focal lesion within a large area of ectopic gastric mucosa (EGM) in the proximal esophagus. The lesion was diagnosed during an upper gastrointestinal endoscopy which had been performed because of suspected gastroesophageal reflux disease.

We confirmed a semicircumferential area of ectopic gastric mucosa reaching from 16 to 19 cm from the incisors and containing a 7-mm nodular lesion (● Fig. 1a). Narrow band imaging (NBI) combined with magnifying endoscopy revealed an irregular surface pattern and irregular vascular pattern of the nodule, and also the regular surface pattern of the surrounding flat mucosa (● Fig. 1b). Staining with acetic acid confirmed the irregular surface pattern (● Fig. 1c). These findings were highly suspicious of an early cancer and biopsy of the nodule showed adenocarcinoma arising from ectopic gastric mucosa.

The lesion was resected by endoscopic submucosal dissection (ESD) using the hook-knife (KD-620LR; Olympus, Tokyo, Japan) (● Fig. 2). Resection was performed with the patient under general anesthesia and his further course was uneventful.

Histological examination showed en bloc R0 resection of a mucosal adenocarcinoma (pT1a L0 V0 G2 R0) arising within ectopic gastric mucosa (● Fig. 3). Because



**Fig. 3** Histological appearances of the resected specimen. **a** Regular squamous epithelium (left side) and the border with regular gastric mucosa (right side). **b** Early mucosal adenocarcinoma arising within regular gastric mucosa (shown on the left side); the carcinoma was classified as pT1a L0 V0 G2 R0.

of the histological findings showed low risk, the resection was judged curative and the patient entered follow-up without further treatment.

While ectopic gastric mucosa of the proximal esophagus is found in more than 10% of upper gastrointestinal endoscopies, malignant transformation to adenocarcinoma is rare and only about 40 cases have been reported since 1950 [1]. Most of the tumors were treated by esophagectomy and/or (chemo)radiotherapy. Endoscopic resection has been reported in fewer than 10 cases and only one resection was done using ESD [1–5]. In the treatment of early gastric cancers, ESD has been shown to be superior to endoscopic mucosal resection (EMR) regarding R0 status and recurrence risk. The present

case illustrates the potential role of ESD also in the resection of adenocarcinoma of the proximal esophagus arising within ectopic gastric mucosa.

Endoscopy\_UCTN\_Code\_CCL\_1AB\_2AC

**Competing interests:** No financial arrangements, grant support or competing interests.

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**DOI** <http://dx.doi.org/10.1055/s-0034-1392423>  
*Endoscopy* 2015; 47: E337–E338  
 © Georg Thieme Verlag KG  
 Stuttgart · New York  
 ISSN 0013-726X

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