

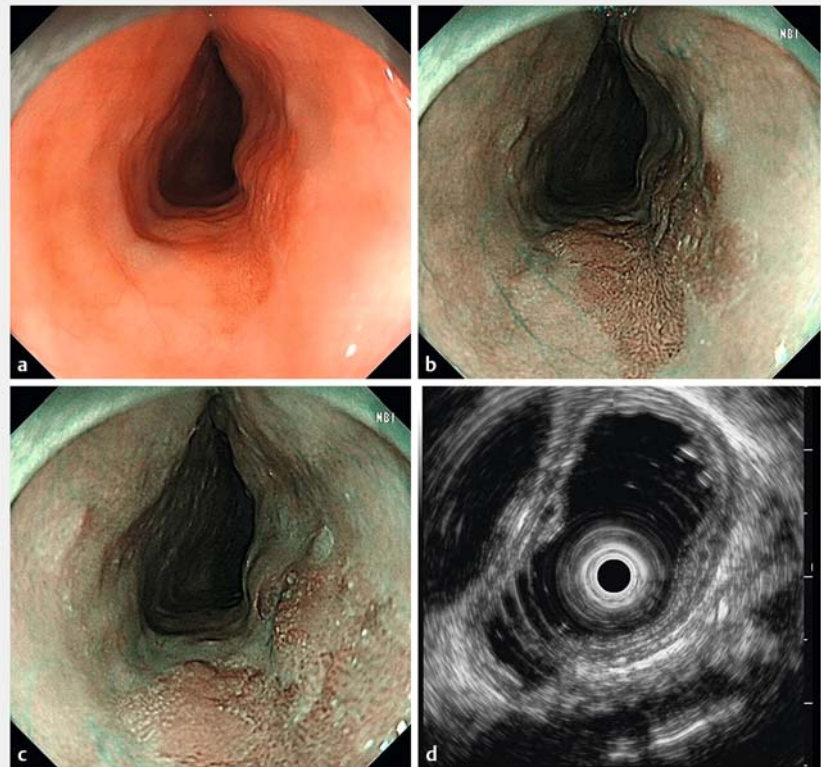
Endoscopic submucosal dissection of squamous cell carcinoma accompanied by adenoid cystic carcinoma of the esophagus



Adenoid cystic carcinoma of the esophagus is a rare tumor and difficult to detect early [1,2]. Esophageal squamous cell carcinoma (ESCC) has a characteristic magnifying endoscopic appearance [3]. However, adenoid cystic carcinoma of the esophagus can have atypical endoscopic features.

An 84-year-old man underwent esophagogastroduodenoscopy (EGD) owing to retrosternal discomfort. EGD showed a flat (0-IIb) and slightly reddish lesion of 15×20mm in the middle esophagus (► Fig. 1a). The lesion appeared as a brownish area on narrow-band imaging (NBI) endoscopy (► Fig. 1b, c). Endoscopic ultrasound (EUS) revealed the lesion primarily involved the mucosal layer of the esophagus with a hypoechoic area (► Fig. 1d). NBI magnification revealed that the intrapapillary capillary loop pattern appeared to be type B1 (► Fig. 2, ► Video 1) based on the magnifying endoscopic classification of the Japan Esophageal Society. But near the anal area of this 2×2-mm lesion, the loop pattern appeared irregular and of the fine reticular (R) type (► Fig. 2b) (red arrow). The endoscopic diagnosis was ESCC and the depth was mainly T1a-EP or T1a-LPM. Biopsy pathology suggested a high grade intraepithelial neoplasia (HGIN).

This patient was eligible for endoscopic therapy. Therefore, an en bloc resection was performed by endoscopic submucosal dissection (ESD) (► Fig. 3 a–f). From the second to eighth tissue strips, hematoxylin and eosin (H&E) stain showed HGIN with focally invasive SCC in the lamina propria (► Fig. 3 g) (blue circle). In the sixth strip, there are epithelioid cells arranged in a cribriform, tubular and solid architecture, which have no relation to the surface squamous epithelium and are restricted to the lamina propria (► Fig. 4 a–c). Immunohistochemical analysis showed that these abnormally arranged epithelioid cells were positive for P40, SOX-10 and



► Fig. 1 Preoperative endoscopy.



► Video 1 Endoscopic features and endoscopic submucosal dissection of squamous cell carcinoma accompanied by adenoid cystic carcinoma of the esophagus.



► **Fig. 2** Narrow-band imaging with magnification.

CD117, which was diagnosed as adenoid cystic carcinoma (► **Fig. 4 d, e, f**). The pathological diagnosis was: (1) ESCC, 0-IIb, pT1a(LPM), ly(-), v(-), HM0, VM0, pR0, 14×16 mm (in 27×35 mm); (2) EACC, 0-IIb, pT1a(MM), ly(-), v(-), HM0, VM0, pR0, 2×2 mm (in 27×35 mm) (► **Fig. 5**). Endoscopic control at 6 months showed the presence of a regular scar with no signs of residual disease or recurrence. Adenoid cystic carcinoma of the esophagus lacked a

typical magnifying endoscopic appearance. R-type vessels can be atypical magnifying endoscopic features that help us to detect lesions early [4–5].

Endoscopy_UCTN_Code_TTT_1AO_2AG

Competing interests

The authors declare that they have no conflict of interest.

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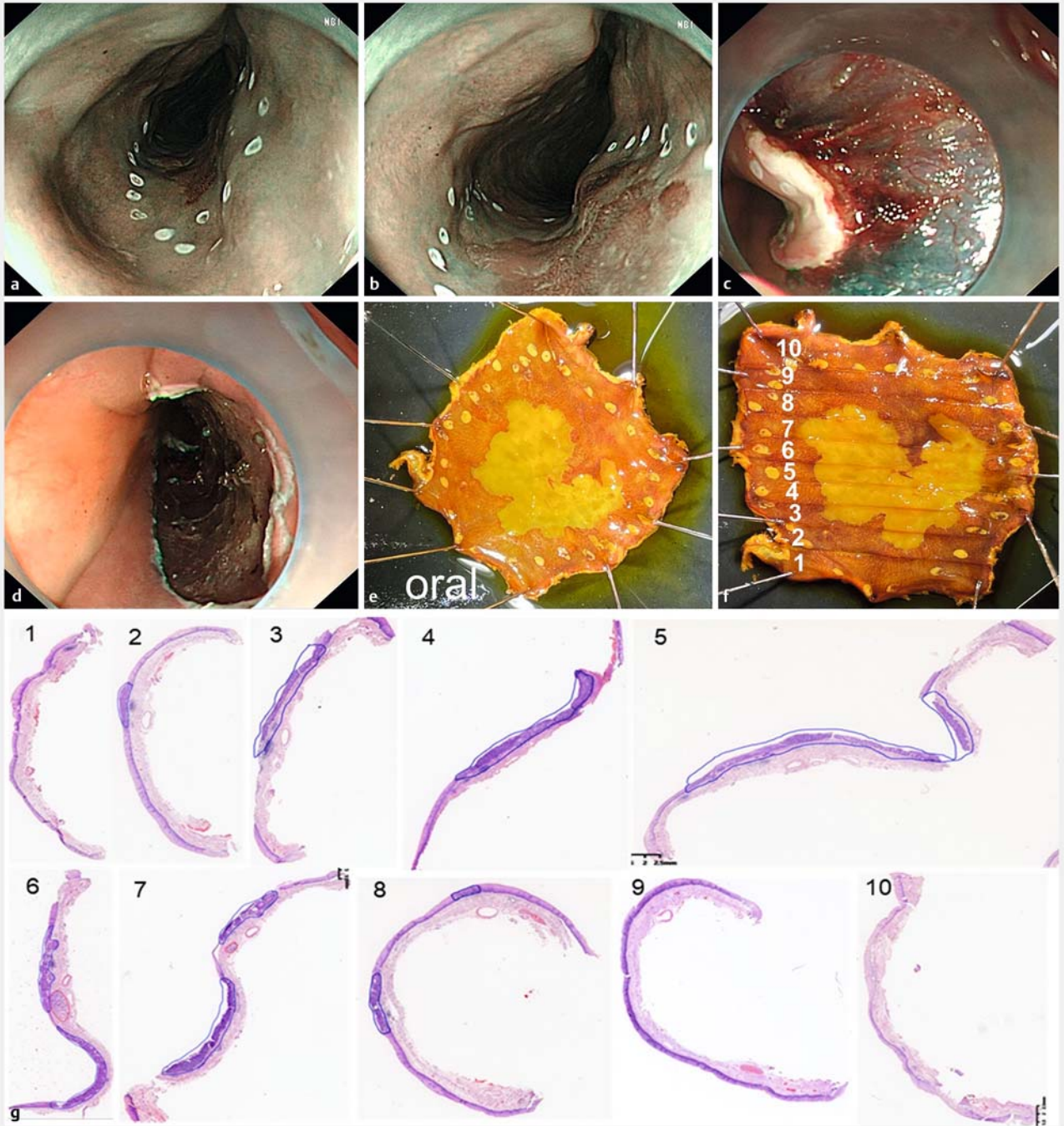
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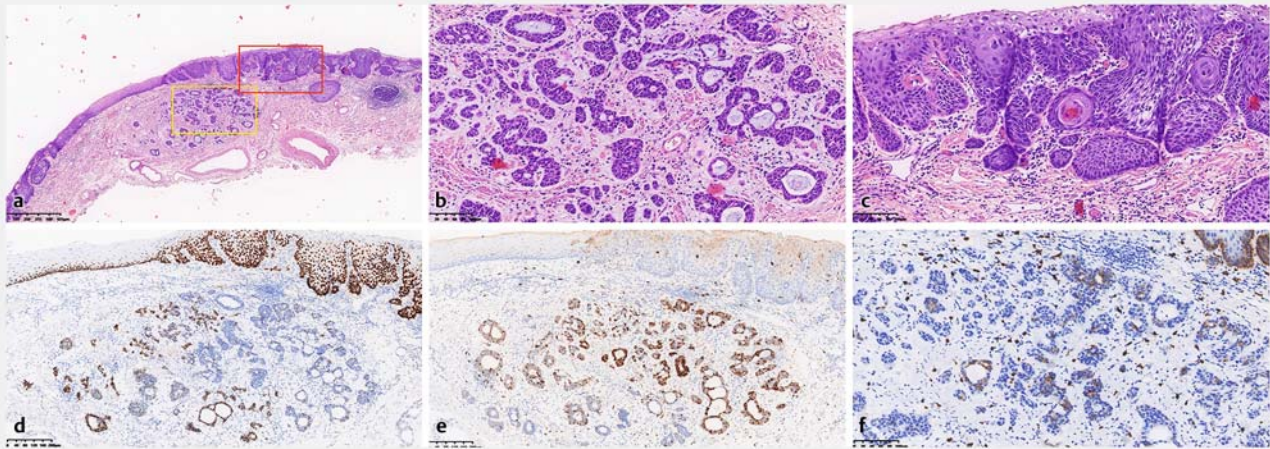
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References

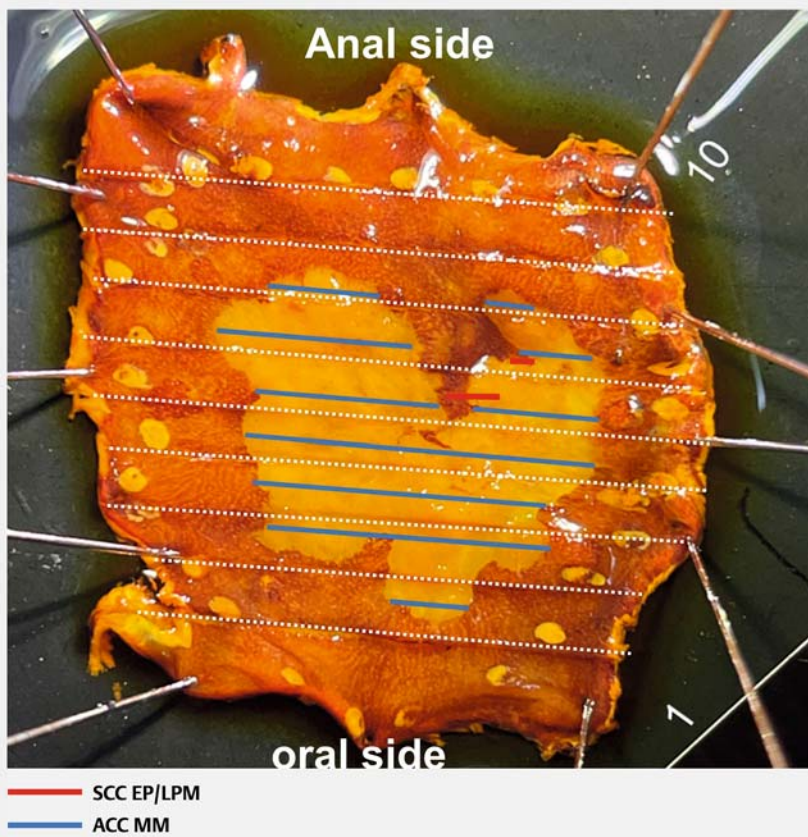
- [1] Morisaki Y, Yoshizumi Y, Hiroyasu S et al. Adenoid cystic carcinoma of the esophagus: report of a case and review of the Japanese literature. *Surg Today* 1996; 26: 1006–1009
- [2] Gregg JB, Stampler FW. Unusual neoplasms of the esophagus: review of literature and report of a case. *AMA Arch Otolaryngol* 1954; 59: 159–169
- [3] Kumagai Y, Inoue H, Nagai K et al. Magnifying endoscopy, stereoscopic microscopy, and the microvascular architecture of superficial esophageal carcinoma. *Endoscopy* 2002; 34: 369–375
- [4] Yoshikawa K, Kinoshita A, Hirose Y et al. Endoscopic submucosal dissection in a patient with esophageal adenoid cystic carcinoma. *World J Gastroenterol* 2017; 23: 8097–8103
- [5] Miwako A, Mika M, Takako Y et al. Classification of the Japan Esophageal Society for magnifying endoscopy and the depth of tumor invasion-type r vessels and histopathological features. *Stomach and Intestine* 2014; 49: 213–221



► **Fig. 3** Intraoperative endoscopy, postoperative specimen and hematoxylin and eosin (H&E) stain.



► Fig. 4 H&E stain and immunostaining of the 6th tissue strips in resected specimen.



► Fig. 5 The specimen (Lugol stain) showing invasion depth of cancer on serial section (color code).

Bibliography

Endoscopy 2023; 55: E49–E52

DOI 10.1055/a-1889-5336

ISSN 0013-726X

published online 22.9.2022

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