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 × 20 mm 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. 3a–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. 3g) (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. 4a–c). Immunohistochemical analysis showed that these abnormally arranged epithelioid cells were positive for P40, SOX-10 and...
CD117, which was diagnosed as adenoid cystic carcinoma (▶Fig.4d,e,f). The pathological diagnosis was: (1) ESCC,0-IIb, pT1a(LPM), ly(-), v(-), HMO, VM0, pR0, 14×16 mm (in 27×35 mm); (2) EACC,0-IIb, pT1a(MM), ly(-), v(-), HMO, 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].

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Competing interests

The authors declare that they have no conflict of interest.

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References

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

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