Strategy of small-caliber endoscopic submucosal dissection for esophageal neoplasia distal to severe stricture

When esophageal neoplasia occurs distally to severe stenosis after prior endoscopic submucosal dissection (ESD) [1, 2], a conventional endoscope cannot pass through. Therefore, a small-caliber endoscope (SCE) must be used. Although transnasal ESD of a small esophageal lesion using an SCE without sedation has been reported [3], it is unclear whether an SCE is feasible for standard ESD with compatible devices. Herein, we report the first case of esophageal ESD using an SCE for a circumferential lesion located distally to severe stenosis.

Esophageal carcinoma occurred distally to stenosis after a previous ESD and prevented the passage of a conventional endoscope (Fig. 1). After obtaining written informed consent, ESD using an SCE (EG-L580NM7; Fujifilm, Tokyo, Japan) with a transparent hood (Nanoshooter, Top Co., Tokyo, Japan) connected to a waterjet generator, electrosurgical unit (VIO3; ERBE Elektromedizin, Tübingen, Germany), a multifunctional snare (SOUTEN; Kaneka Medics, Tokyo, Japan), and a 25-G needle (Super Glip, Top Co.) for local injection of hyaluronate sodium solution, hemostasis was achieved with hemostatic forceps (RC1900: Kaneka Medics). Submucosal coagulation mode (effect 4, 40 W) for marking, endocut mode (endocut Q) for circumferential cutting, and swift coagulation mode (effect 4, 60 W) for submucosal dissection (Fig. 2). Hyaluronate sodium was injected locally via a 25-G needle (Super Glip, Top Co.).
tunnel resection [5], which is a standard strategy for esophageal ESD, comprised the creation of a 10-mm entry point proximal to the stenosis, and a submucosal tunnel (▶ Fig. 3); after penetration of the submucosal tunnel, the residual submucosa was resected (▶ Fig. 4, ▶ Video 1). The procedure was completed without complications (▶ Fig. 5).

Histological examination of the resected specimen revealed curative resection of squamous cell carcinoma.

The advantages of an SCE are its ability to enter the submucosal space easily and maintain fluent maneuverability in narrow spaces. An SCE and associated equipment are useful for ESD in cases with esophageal stenosis.

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Competing interests

None

References


Bibliography

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