Endoscopic submucosal dissection of a squamous cell carcinoma of the esophagus developing in the area of a previous Heller’s myotomy for achalasia

Achalasia is considered a risk factor for esophageal cancer; nevertheless, there is no consensus for any regular screening [1, 2]. A few reports have described early esophageal cancer associated with achalasia that has been resected by endoscopy [3, 4]. Here we report a case of endoscopic submucosal dissection (ESD) for a squamous cell carcinoma that developed in the area of a previous Heller’s myotomy.

A 77-year-old woman with achalasia underwent Heller’s myotomy in 2015. In March 2017 she underwent follow-up endoscopy and a squamous cell carcinoma was detected in the lower third of the esophagus. Examination using magnified narrow-band imaging (NBI) revealed very mild vessel irregularities (Fig. 1a, b), but the use of Lugol dye demonstrated an unstained lesion with the pink-color sign (Fig. 1c, d). ESD was successfully performed but the lesion was located on the area of the previous myotomy and there was no circular muscle layer left under the submucosa (Video 1; Fig. 2).

During the procedure, the scarred tissue under the submucosa maintained the structure of the esophageal wall and no perforation occurred. At the end of the procedure, a 24-mm covered metal stent (Taewoong Medical, Seoul, South Korea) was placed and fixed with two clips to avoid delayed perforation.

A subsequent computed tomography (CT) scan showed neither a pneumomediastinum nor signs of esophageal perforation (Fig. 3). Pathology confirmed an intramucosal squamous cell carcino-
ma that had been resected with free margins. The patient recovered completely, being able to eat on day 1, and was discharged on day 3 following the procedure with no delayed morbidity. The stent was removed after 2 weeks because of pain, which disappeared after stent removal.

To our knowledge, this is the first case of ESD for an early esophageal cancer in the area of a previous Heller’s myotomy. ESD has been shown to be a safe and effective procedure for early esophageal cancer [5], even in a previously treated achalasia patient [3]. Previous myotomy should not be considered a contraindication to an ESD procedure in such patients, but a prophylactic stent can be placed to reduce the risk of complications.

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**Video 1** Endoscopic submucosal dissection of an esophageal squamous cell carcinoma found in the area of a previous Heller’s myotomy, a covered metal stent is placed at the end of the procedure and is subsequently removed 2 weeks later.

**Fig. 2** Views during the procedure showing: a) submucosal fibrosis in the area of the previous Heller’s myotomy; b) the tunnel with lower enlargement in the previous myotomy area; c) muscle fibrosis in the area of the previous myotomy; d) a stent positioned to cover the area.
Fig. 3  Appearances following the procedure: a, b on chest computed tomography, showing a 24-mm covered metal stent (white arrows) fixed with two clips (black arrows) and no evidence of either a pneumomediastinum or esophageal perforation; c on endoscopy after stent removal.
References


Bibliography
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