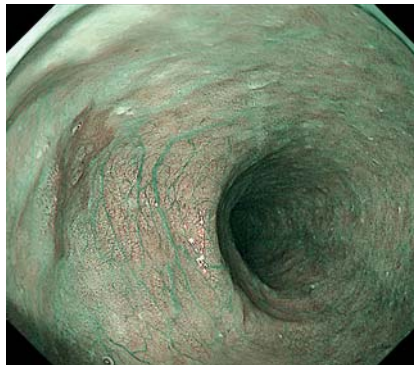


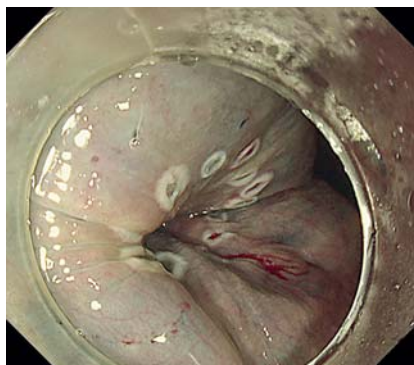
## Endoscopic submucosal dissection for a superficial esophageal squamous cell carcinoma located in a Rokitansky diverticulum



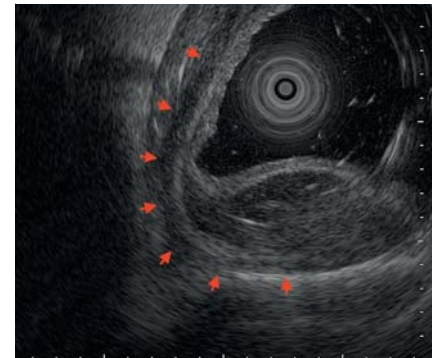
Lesions in the esophageal diverticulum are at risk of perforation during endoscopic resection due to a lack of or thinned muscularis propria [1]. We successfully performed endoscopic submucosal dissection (ESD) for superficial esophageal cancer in a Rokitansky diverticulum. We detected superficial esophageal cancer in a depressed area in the middle thoracic esophagus of a 60-year-old woman (► Fig. 1). Submucosal injection was performed, but the submucosal elevation was inadequate, especially in the center of the lesion (► Fig. 2). We realized that the lesion was located in a diverticulum. Endoscopic ultrasonography (EUS) did not reveal absence of the fourth layer, which represented the muscularis propria (► Fig. 3), suggesting that this was a Rokitansky diverticulum. Considering the risk of perforation, we performed ESD in the operating room. After circumferential incision, we anchored a dental floss clip (DFC) to the oral edge of the lesion. DFC traction made it easier to identify the layer to be dissected. We dissected the submucosal layer as shallowly as possible using a scissor-type knife (► Fig. 4). En bloc resection was achieved, and there was no muscular defect (► Fig. 5), confirming that this was a Rokitansky diverticulum. The following day, esophagogastroduodenoscopy revealed no contrast leakage. Histopathological examination revealed squamous cell carcinoma within the epithelium without lymphovascular invasion, suggesting a low risk of recurrence without additional treatment [2] (► Video 1). In this case, we confirmed no obvious lack of the muscularis propria using EUS; therefore, we decided to perform ESD. Even if EUS does not show any area lacking muscularis propria, the dissection of the submucosal layer should be shallow given the possibility that such an area could exist [1]. The use of DFC traction in esophageal ESD has been reported to reduce the risk of perforation [3], and a



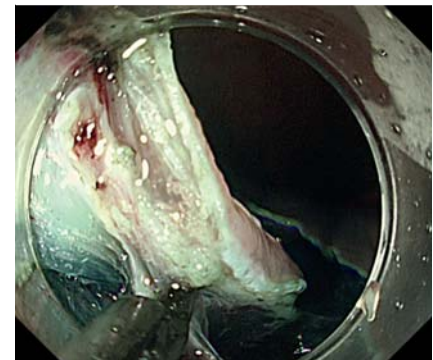
► Fig. 1 A brownish area identified on narrow-band imaging and diagnosed as a superficial esophageal cancer in a depressed area in the middle thoracic esophagus.



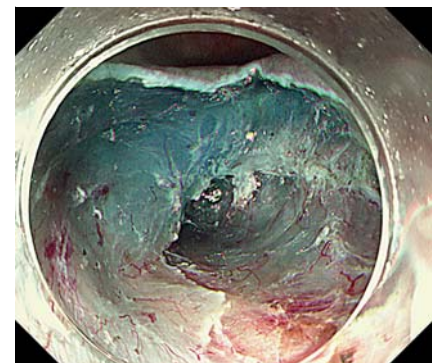
► Fig. 2 Submucosal injection was performed, but the submucosal elevation was inadequate, especially in the center of the lesion.



► Fig. 3 Endoscopic ultrasonography did not show lack of the fourth layer, which represented the muscularis propria.



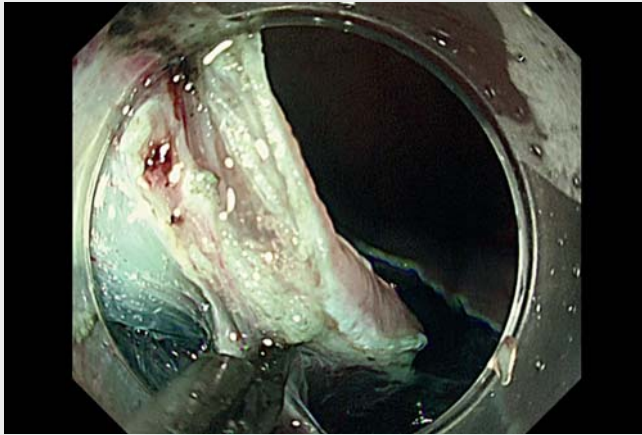
► Fig. 4 We dissected the submucosal layer as shallowly as possible using a scissor-type knife.



► Fig. 5 En bloc resection was achieved and no muscular defect was observed.

scissor-type knife is useful in diverticulum cases [4]. We combined these two techniques to achieve shallow dissection of the submucosal layer and successfully completed ESD.

Endoscopy\_UCTN\_Code\_TTT\_1AO\_2AG



**Video 1** Endoscopic submucosal dissection for a superficial esophageal squamous cell carcinoma located in a Rokitansky diverticulum.

## Competing interests

The authors declare that they have no conflict of interest.

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