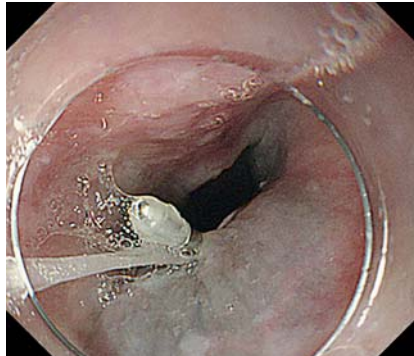


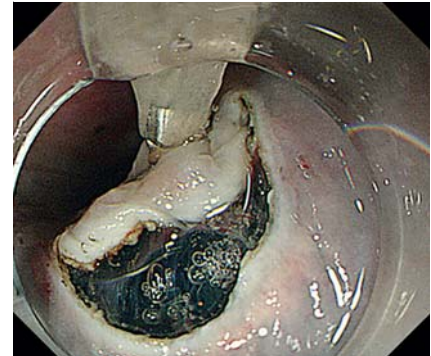
Clip with thread attachment prior to incision – new strategy for traction-assisted esophageal endoscopic submucosal dissection



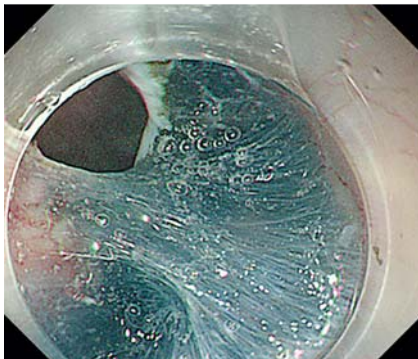
► **Fig. 1** Initial incision of anal mucosa of the tumor.



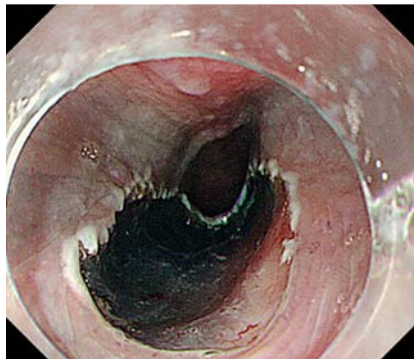
► **Fig. 2** Attaching the clip with thread to the oral side of the tumor mucosa after elevation by injection.



► **Fig. 3** Ideal mucosal incision created with the clip and thread, facilitating submucosal entry and dissection.



► **Fig. 4** Dissection of the submucosal area under good traction.



► **Fig. 5** The esophageal lesion resection en-bloc.

A 55-year-old had a 20-mm 0-IIc lesion located in the middle thoracic esophagus. Endoscopic submucosal dissection (ESD) was performed using an electrosurgical knife (Flush Knife BT; Fujifilm Corporation, Tokyo, Japan). First, the mucosa of the anal side of the tumor was cut after submucosal injection of 0.4% sodium hyaluronate (► **Fig. 1**). Subsequently, the oral mucosa of the tumor was adequately elevated by submucosal injection. A clip attached with dental floss was then deployed to the elevated mucosa (► **Fig. 2**) prior to incision of the oral-side mucosa

(► **Video 1**). The oral-side mucosal incision was performed under ideal countertraction (► **Fig. 3**), facilitating entry to the submucosal layer with sufficient countertraction throughout the ESD procedure. Dissection and the remaining circumferential incision could then be performed with excellent traction (► **Fig. 4**), enabling this lesion to be resected easily en-bloc (► **Fig. 5**).

Previous studies have demonstrated that traction using a “clip with thread” method can make ESD easier and safer [1–3]. The main strategy in these studies is con-

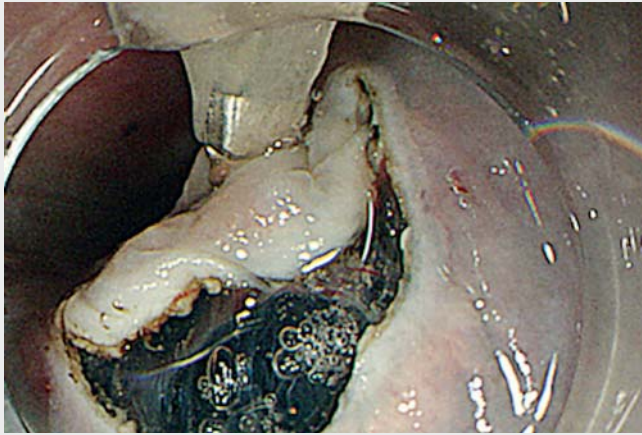
necting the clip with thread to the mucosa after creating a mucosal flap by incision and dissection. However, creating the initial mucosal flap is technically difficult, and there is a risk of attaching the clip to the muscle layer of the esophagus. Ide et al. also reported that clipping prior to the initial incision was convenient for colorectal ESD [4, 5]. This strategy of clipping with the thread prior to the initial incision has some merit because it eliminates the need for a mucosal flap. In addition, we can create the opening for the submucosal dissection area with our initial incision and thus dissect under traction easily and safely.

We propose that this new strategy of traction-assisted ESD is a suitable method for esophageal ESD.

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Competing interests

The authors declare they have no conflict of interest



Video 1 A new strategy for traction-assisted endoscopic mucosal dissection of esophageal tumors.

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