

Modified fishing-line traction system in endoscopic submucosal dissection of large esophageal tumors

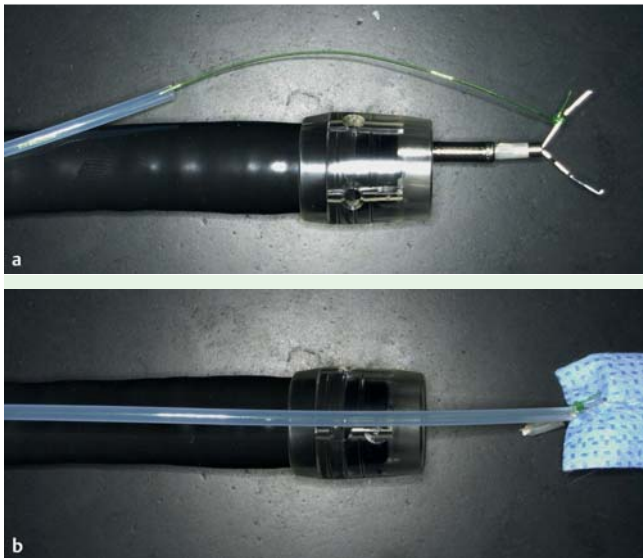


Fig. 1 a Fishing line tied to the endoclip. b A plastic sheath is inserted along the fishing line after placement of the endoclip.

Endoscopic submucosal dissection (ESD) is a proven and safe technique in the en bloc removal of early gastrointestinal tract cancers [1]. With the array of available ESD devices and improvement in ESD techniques, it is now safe to resect lesions even in difficult locations, such as the esophagus [2]. However, technical challenges remain when attempting to resect large lesions in locations within a confined space. When the tumor occupies greater than three-quarters of the esophageal circumference, the endoscopic view is diminished when the resection reaches the central portion of the tumor, making further resection difficult and unsafe. To counteract this problem, we have devised a modified version of a traction system previously described in the resection of intragastric lesions [3]. We advocate the use of an esophageal overtube to facilitate the withdrawal and reinsertion of the endoscope in such cases. Before introduction into the patient, an endoclip device is loaded into the endoscope and a length of 0.285-mm fishing line is tied to one jaw of the endoclip (● Fig. 1 a and b).

The endoscope is reinserted into the patient through the overtube with the fishing line running alongside the shaft of the endoscope. The endoclip is placed over the central portion of the proximal margin of the partially resected tumor and a low resistance plastic sheath (100 cm) is inserted over the fishing line (● Fig. 2 a and b).

The plastic sheath allows the endoscope to be easily maneuvered without interrupting the traction placed on the tumor. When traction is applied the tumor is lifted with a subsequent improvement in the endoscopic view, and this allows safe continuation of the ESD (● Fig. 2 c). This method is simple, easily applied, and cost-effective, and counteracts the problem created by the resection of large esophageal tumors by ESD.

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Competing interests: None

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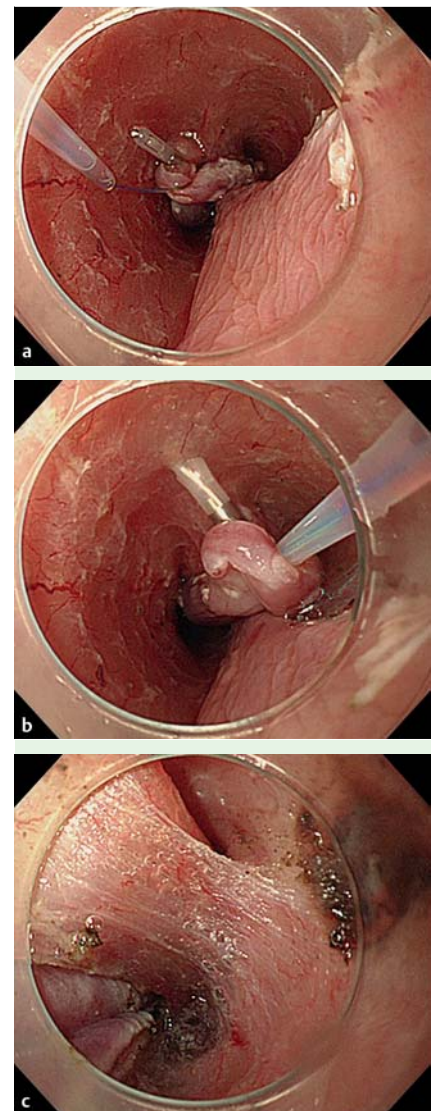


Fig. 2 a The endoclip with the fishing line attached is placed on the resected portion of the esophageal tumor. b The plastic sheath is inserted over the fishing line, as traction starts to be applied. c Full traction is applied, which leads to an improvement in endoscopic view and allows continuation of ESD.

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Bibliography

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