

DEN Video Article

“Clip hooking rubber loop” technique for traction-assisted endoscopic submucosal dissection

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BRIEF EXPLANATION

IN TRACTION-ASSISTED ENDOSCOPIC submucosal dissection (ESD),^{1,2} a through-the-scope (TTS) device should be fixated in a lesion's anal side to maintain consistent traction throughout the procedure.^{3–5} However, it is difficult to properly move a TTS device using a clip tip, which can result in inadequate traction.

We developed a technique that allows the TTS device to be easily fixed to the lesion's anal side by hooking the

loop using a clip forceps (“clip hooking rubber loop” technique).

An 81-year-old man underwent ESD to manage a 20 mm polypoid lesion in the sigmoid colon. This case was considered a good candidate for traction-assisted ESD because of extensive fibrosis in the submucosal layer, making it difficult to advance the scope tangentially through the muscle layer.

The TTS device (Multiloop traction device; Boston Scientific Co. Ltd., Tokyo, Japan) was fixed to the

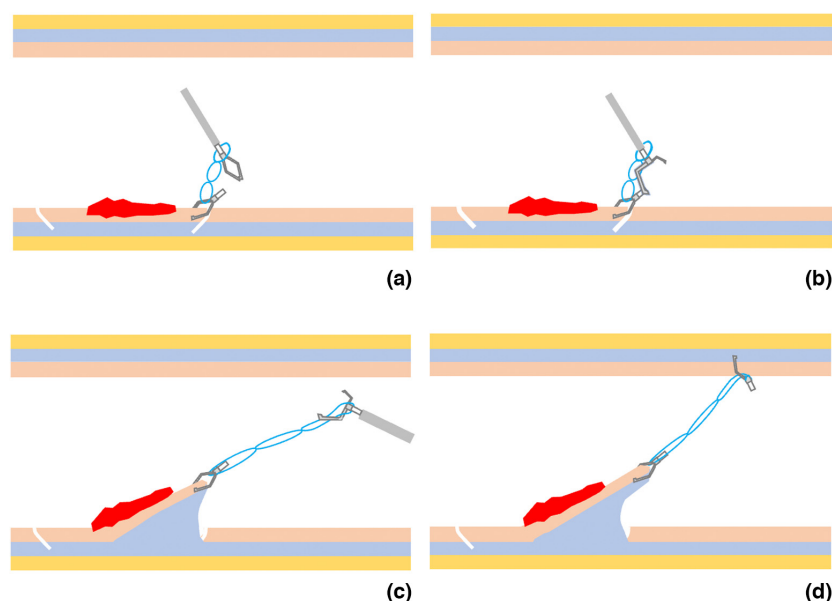


Figure 1 Schema of “clip hooking rubber loop” technique. (a) The through-the-scope (TTS) device was fixed on the lesion's anal side, and a closed clip forceps was passed through the loop. (b) Next, the clip was unfolded and hooked to the loop. (c) The TTS device was pulled securely to the lesion's anal side. (d) The loop was fixed to the contralateral side of the lesion, and traction was formed.

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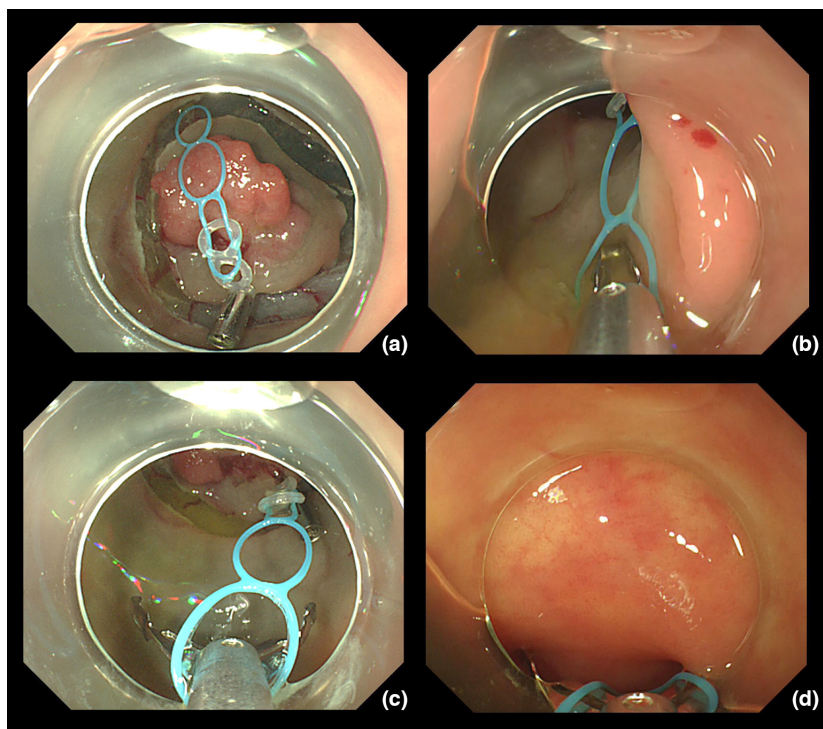


Figure 2 Endoscopic view of “clip hooking rubber loop” technique. (a) The through-the-scope (TTS) device was fixed on the lesion’s anal side. (b) A closed clip forceps was passed through the loop. (c) The clip was unfolded and hooked to the loop. (d) The TTS device was pulled securely to the lesion’s anal side and the loop was fixed to the contralateral side of the lesion.

lesion’s anal side, and a closed clip forceps (SureClip; Micro-Tech Co. Ltd., Nanjing, China) was passed through the loop.

Next, the clip was unfolded and anchored to the loop, and the TTS device was pulled securely to the lesion’s anal side. If the TTS device is secured to the contralateral colon wall without the clip pinching the loop, the device may easily fall out. Therefore, it is important to pass the closed clip through the loop from the appropriate direction to secure it to the contralateral colon wall while pinching the loop. Adhering to this allows the TTS device to be fixed to the lesion’s contralateral site, providing adequate traction (Figs 1,2).

This allowed the scope to be advanced tangentially through the muscle layer, allowing complete dissection while maintaining good traction. The pathologic diagnosis was well-differentiated adenocarcinoma with negative margins (Video S1).

This “clip hooking rubber loop” technique enables an easy and reliable performance of traction-assisted ESD using the TTS device.

CONFLICT OF INTEREST

AUTHOR M.T. IS an Associate Editor of *Digestive Endoscopy*. The other authors declare no conflict of interest for this article.

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SUPPORTING INFORMATION

ADDITIONAL SUPPORTING INFORMATION may be found in the online version of this article at the publisher's web site.

Video S1 We have developed a technique that allows the TTS device to be easily fixed to the lesion's anal side by passing the closed clip forceps through the loop, unfolding the clip, and hooking it to the loop ("clip hooking rubber loop" technique).