

## Three-point traction method for endoscopic submucosal dissection using clip-with-thread and clip-with-silicon bands for large early gastric neoplasms



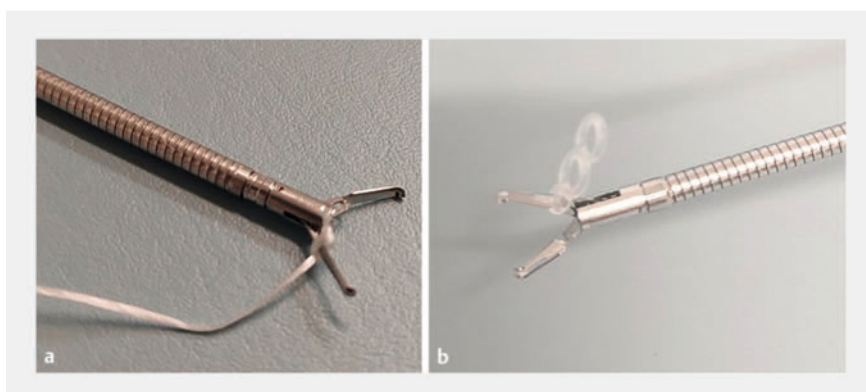
Endoscopic submucosal dissection (ESD) is the standard treatment for early gastric neoplasms (EGNs), and traction methods have been developed to make ESD safe and simple [1,2,3]. Applying appropriate traction provides better visibility of the submucosal layer and enables effective dissection [4,5]. We developed a novel three-point traction (TPT) method using a combination of

clip-with-thread and clip-with-silicon band for gastric ESD. Here, we present a successful case of TPT-ESD for a large EGN (► **Fig. 1**, ► **Video 1**).

A 70-year-old woman underwent ESD for a 50-mm EGN on the greater curvature of the antrum. Marking dots and circumferential mucosal incisions were made around the lesions using an electro-surgical knife. Subsequently, TPT was per-

formed on the lesions. A clip-with-thread was placed at the 6 o'clock position of the mucosal flap of the lesion (► **Fig. 2a**). Next, a clip-with-silicon band was placed at the 5 o'clock position of the mucosal flap. The third clip was placed in the 7 o'clock position of the mucosal flap while hooking the band, allowing the thread to run underneath the silicon band (► **Fig. 2b**, ► **Fig. 2c**). TPT force was achieved by pulling the thread using three clips (► **Fig. 2d**), which provided a wide and clear view of the submucosal layer, enabling stable submucosal dissection. En bloc resection was achieved without complication.

Compared with the conventional one-point-traction using a clip-with-thread, the TPT method provides a wide and clear view of the submucosal layer, elevating a larger area of the lesion and preventing the lesion from twisting during the latter part of dissection. The silicon band traction force generated by two clips in the 5 and 7 o'clock positions of the mucosal flap can bring the submucosal layer toward center, generating a synergistic effect with the TPT force. TPT-ESD can be a treatment option for EGN, particularly large lesions.



► **Fig. 1** Clip with traction band and pre-tied thread.

### ► VIDEO

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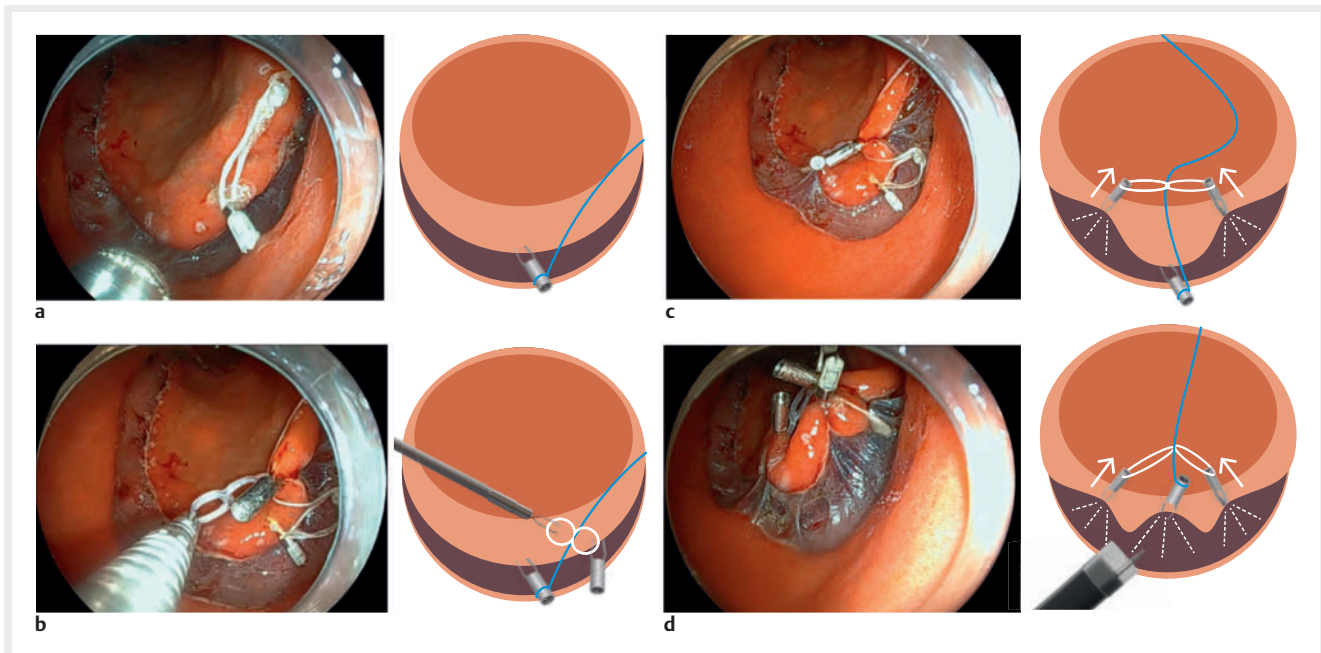
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► **Video 1** Three-point traction method for endoscopic submucosal dissection using clip-with-thread and clip-with-silicon bands for large early gastric neoplasms.

### Conflict of Interest

E. Ihara participated in the funded research of Takeda Pharmaceutical. E. Ihara has received a lecture fee from Takeda Pharmaceutical. Yoshihiro Ogawa is conducting a joint study with Fancil Corporation and Fujifilm Medical Co., Ltd. The other authors declare they have no conflict of interest.



► **Fig. 2** Each step of the three-point traction method for ESD using a combination of clip-with-thread and clip-with-silicon-band. **a** A clip-with-thread placed in the 6 o'clock position of the mucosal flap of the lesion. **b** A clip-with-silicon band placed in the 5 o'clock position of the mucosal flap. **c** The third clip placed in the 5 o'clock position of the mucosal flap while hooking the silicon band, allowing the thread to run underneath the silicon band (Fig. 2b and Fig. 2c). **d** The TPT force was achieved by pulling the thread using three clips.

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