A novel endoscopic clip for closing a large perforating wound in a patient undergoing endoscopic full-thickness resection



The through-the-scope twin clip (Micro-Tech Co. Ltd., Nanjing, China), also called a dual action tissue clip, was first reported by us [1,2]. The clip can pass directly through the working channel of the endoscope to close the wound and is convenient and quick to use. To our knowledge, this was the first time that through-the-scope twin clips were used to close a large perforation in a patient with a submucosal tumor.

The 2.5-cm tumor, located at the gastric fundus and derived from the muscularis propria, was completely resected by endoscopic full-thickness resection (EFTR). The pathology of the resected tumor was a low-risk stromal tumor. After EFTR, the perforating wound size was about 2.5 cm (▶ Fig. 1 a). It was closed using through-the-scope twin clips combined with traditional through-the-scope clips (Video 1, Fig. 1) as follows: One side of a twin clip was opened by operating the handle and the mucosa on one side of the wound was tightly clamped (Fig. 1b). Then, the clamped mucosa was pulled toward the opposite side to close the mucosa, and the clip on the other side of the twin clip was opened to clamp that side of the mucosa (► Fig. 1 c). After the mucosa on both sides of the wound was firmly clamped together, the twin clip was released. The large perforation closed by four through-the-scope twin clips was gradually turned into a small wound, and then the small wound was closed by five traditional throughthe-scope clips (>Fig.1d). The total time of wound closure was 15 minutes, and the mean time spent closing the wound with each twin clip was 2.5 minutes. No bleeding or perforation complications occurred. In 2 months after the operation, the wound had healed, all twin clips had detached spontaneously, and four traditional clips remained (Fig. 1e). In this case, a large perforating wound was successfully closed by the through-the-scope twin clips.



▶ Fig. 1 A large perforating wound was successfully closed by through-the-scope twin clips. a After a submucosal tumor resected by endoscopic full-thickness resection, a 2.5-cm perforating wound of was produced. b The clip on one side of a twin clip was opened by operating the handle to tightly clamp the mucosa on one side of the wound. c The clamped mucosa was pulled toward the mucosa on the opposite side and that side clamped with the other clip. d The wound was completely closed by use of through-the-scope twin clips combined with traditional through-the-scope clips. e In 2 months after operation, the wound had healed, and all the twin clips had detached spontaneously.

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Competing interests

The authors declare that they have no conflict of interest.





▶ Video 1 A case of through-the-scope twin clips to close a large perforating wound in a patient undergoing endoscopic full-thickness resection.

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