Effective use of the “clip-flap” method for the endoscopic submucosal dissection of a difficult-to-approach superficial gastric tumor

Endoscopic submucosal dissection (ESD) is technically difficult because of poor visualization in the operative field. The formation of a mucosal flap improves visualization of the operative field, but a high level of skill or special equipment is often required, depending on the location of the lesion [1–3]. To facilitate formation of the mucosal flap, we designed the “clip-flap” method, in which an endoclip is initially substituted for the mucosal flap [4,5]. Herein, we report the remarkable effectiveness of the clip-flap method in a patient with a lesion that was difficult to approach.

A 63-year-old man with a 20-mm flat elevated lesion located at the lesser curvature of the middle gastric body underwent ESD. Submucosal injection, mucosal incision, and deeper cut were performed from the anal side in retroflexion with an endoknife (ITknife2; Olympus, Tokyo,

Japan), but it was difficult to create the mucosal flap because the lesion could not be adequately reached with a tangential approach (● Fig. 1 a,b). An endoclip (EZ Clip, HX-610-135; Olympus) was therefore attached to the exfoliated mucosa, after which the endoscope attachment could be slipped under the endoclip. The exfoliated mucosa was then lifted by the endoclip, which allowed clear visualization of the submucosal layer and effective dissection with the endoknife (● Fig. 1 c–f, ● Video 1). The mucosal flap was quickly created, leading to successful ESD.

The tail end of an endoclip attached to the mucosa around the lesser curvature of the gastric body tends to fall toward the greater curvature because of gravity, allowing the attachment to be slipped under the endoclip without difficulty. The clip-flap method is thus easily applied

for lesions around the lesser curvature of the gastric body. The clip-flap method is simple and may be an effective option for lesions around the lesser curvature of gastric body that are difficult to approach.

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Competing interests: None

Video 1

Use of the clip-flap method for endoscopic submucosal dissection (ESD) of a flat elevated lesion located at the lesser curvature of the middle gastric body and therefore difficult to reach via a tangential approach with a conventional ESD procedure.

Fig. 1 Use of the clip-flap method for endoscopic submucosal dissection of a flat elevated lesion located at the lesser curvature of the middle gastric body in a 63-year-old man. **a, b** The lesion cannot be reached adequately with a tangential approach. **c, d** The endoclip is attached to the exfoliated mucosa. **e, f** The endoscope attachment is slipped under the endoclip, allowing clear visualization of the submucosal layer and effective dissection with the endoknife.

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