

Closure of large post-endoscopic submucosal dissection defects with lateral mucosal incisions and clips

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With the introduction of endoscopic submucosal dissection (ESD) techniques, complex lesions can now be resected. Artificial ulcers may be closed or left open according to endoscopist's preference. However, closure of large defects may accelerate healing and thus diminish the risk of late bleeding [1]. Clipping of large defects in a sequential zipper fashion can be cumbersome or even impossible. Alternative options include the use of a double-channel endoscope with an endoloop and clips, a figure of 8-shaped stainless clip in combination with clips, a nylon-string loop attached to a clip, over-the-scope clips and the overstitch endoscopic suturing device [2,3]. Nevertheless, these techniques need additional equipment and increase the overall cost. We recently had the experience of an 80-year-old patient under low-dose aspirin with a history of chronic renal failure, who underwent ESD of a 3x3 cm early gastric cancer (carcinoma *in situ*) (Fig. 1). The post-ESD defect was too large for clipping in a zipper fashion. We decided to apply a technique introduced by Otake *et al* [3], for the closure of colonic mucosal defects. Two small incisions were made in each side of the defect. These mucosal holes served as a grip for traction. With the help of two clips (Hemoclip, Life Partners, France), the oral border of the defect was dragged and then attached to the opposite border. Then, complementary closure of the residual defect was easily achieved with 7 additional clips (EZ Clips, Olympus, Greece). The patient was discharged after 24 h, and did not present any complication.

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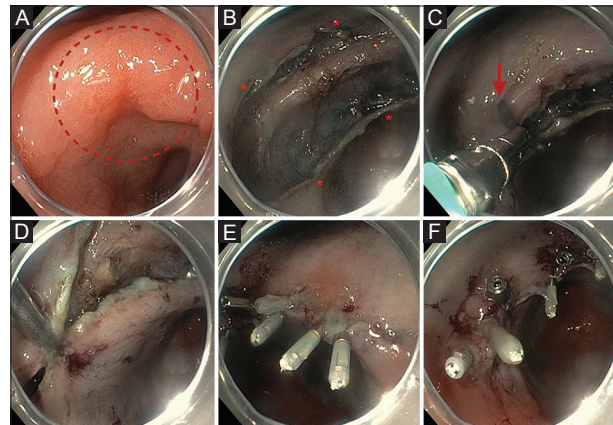


Figure 1 (A) Early gastric cancer of the angulus (Paris IIb+IIc, Tis). (B) Post-endoscopic submucosal dissection mucosal defect. Small incisions (holes) were made using a Dual Knife (Olympus) around the lateral borders (asterisks). (C) The extremity of the first clip was 'anchored' into the hole (arrow) and the mucosal border was dragged towards the opposite mucosal border. (D) The other arm of the clip was inserted into the opposite hole and then it was deployed. (E, F) After placement of two clips using the aforementioned method, the remaining gap was clipped in a conventional zipper fashion

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