

A Case of an embedded clip in the gastric wall after shielding a post-endoscopic submucosal dissection ulcer with polyglycolic acid sheet

Takimoto *et al.*¹ first reported a novel endoscopic tissue-shielding method using polyglycolic acid sheets (PGA) and fibrin glue in 2012. Since that time, it has been reported to be a safe and effective method to prevent complications after endoscopic submucosal dissection (ESD);^{2,3} however, more data are needed regarding associated adverse events.

A 78-year-old man with an early gastric cancer 20 mm in diameter in the lesser curvature of the antrum (Fig. 1a) was treated by ESD. The lesion was resected en bloc without any complications (Fig. 1b). Immediately after the resection, a large PGA sheet was deployed using the clip-and-pull method⁴ to prevent postoperative bleeding (Fig. 1c). The sheet was successfully fixed onto the artificial ulcer with 13 clips and fibrin glue (Fig. 1d).

Although the pathological diagnosis showed a well-differentiated adenocarcinoma with lymphovascular invasions, the patient refused to undergo additional surgical resection. Therefore, he was followed closely with periodic endoscopy evaluation and abdominal computed tomography (CT) scans once or twice a year to detect distal or lymph node metastases. The first follow-up endoscopy carried out 6 months after the ESD showed that the post-ESD ulcer had re-epithelialized and a white substance was embedded under the scar (Fig. 2a). Follow-up CT showed that the clip from the PGA sheet had become completely embedded into the gastric wall (Fig. 2b).

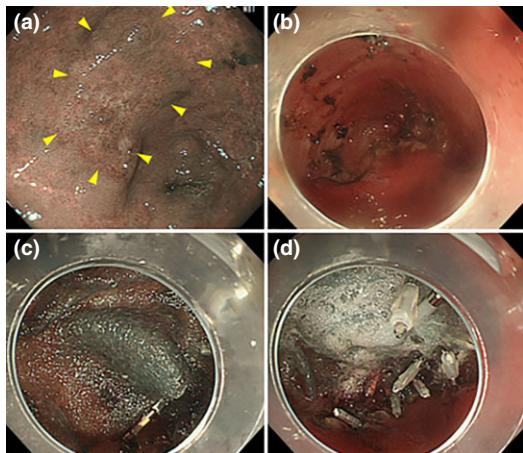


Figure 1 (a) Depressed-type early gastric cancer 20 mm in diameter in the lesser curvature of the antrum. (b) The lesion was resected en bloc without any complications. (c) A large polyglycolic acid (PGA) sheet was deployed using the clip-and-pull method. (d) The PGA sheet was fixed on the artificial ulcer with clips and fibrin glue.

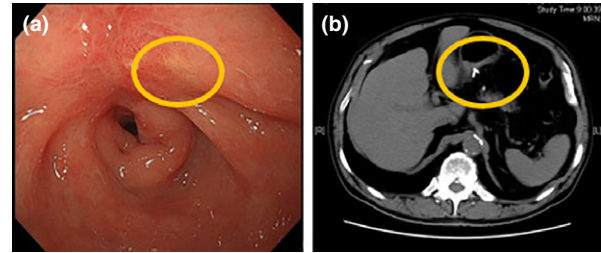



Figure 2 (a) Follow-up endoscopy shows a re-epithelialized post-endoscopic submucosal dissection ulcer and a white substance embedded under the scar. (b) Follow-up computed tomography shows the clip embedded into the gastric wall.

It is difficult to conclude that the clip became embedded as a result of shielding the ulcer with the PGA sheet. However, we speculate that it contributed to re-epithelialization over the foreign body. Therefore, we recommend that patients who have undergone this procedure should have an abdominal X-ray prior to magnetic resonance imaging because an embedded clip may be deflected and do the gastric wall injury in a magnetic field due to its a ferromagnetic property.⁵

Authors declare no conflicts of interest for this article.

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