# Gel immersion endoscopic mucosal resection for a gastric neoplasm with a background of fundic gland polyposis

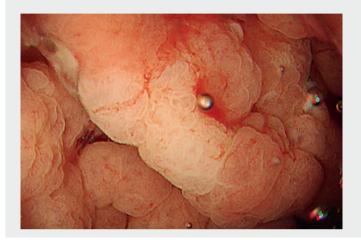




▶ Fig. 1 Esophagogastroduodenoscopy shows a 15-mm whitish flat elevated lesion located at the greater curvature of the upper gastric body with fundic gland polyposis. Near the lesion, a 5-mm whitish lesion was also seen (arrowhead).

Endoscopic submucosal dissection for a gastric neoplasm at the greater curvature of the upper gastric body with polyposis is challenging because of the ease of submersion in water, difficult mucosal incision due to background polyposis, and frequent bleeding during incision. Alternatively, conventional endoscopic mucosal resection (EMR) is a simple and convenient resection method. However, frequent piecemeal resection is concerning [1]. Here, we demonstrate gel immersion EMR for the aforementioned lesion.

A 42-year-old woman with Gardner syndrome underwent esophagogastroduodenoscopy, showing 15-mm and 5-mm whitish flat elevated lesions at the greater curvature of the upper gastric body with fundic gland polyposis (▶ Fig. 1). Endoscopy with narrow-band imaging showed a regular surface pattern, suggesting gastric adenoma (▶ Fig. 2), which was confirmed by biopsies. As these were non-invasive neoplasms, it was not necessary to dissect just above the muscle layer. We decided to perform EMR using not water but Viscoclear (Otsuka Pharmaceutical Factory, Tokushima, Japan), to promptly deal with in-



▶ Video 1 Esophagogastroduodenoscopy shows a whitish flat elevated lesion at the greater curvature of the upper gastric body with fundic gland polyposis. This was successfully removed by gel immersion endoscopic mucosal resection.



► Fig. 2 Endoscopy with narrow-band imaging shows a regular surface pattern, which suggested gastric adenoma.

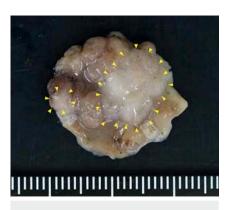
traprocedural bleeding (► Video 1). After marking around the lesion, the gel was injected into the stomach. While maintaining the snare tip in the gastric wall, we captured the lesion and achieved en bloc resection (cut mode) without complications (► Fig. 3, ► Fig. 4). Pathological examination revealed gastric adenomas. The esophagogastroduodenoscopy performed 3 months later showed no residual tumor at the post-EMR ulcer scar



▶ Fig. 3 En bloc resection was achieved.

(**Fig. 5**), which was confirmed by biopsies.

The efficacy of gel immersion EMR has been reported mainly in the duodenum and colon [2–4]. This method has also been used for gastric cancer near the pyloric ring, where it is difficult to submerge in water and the workspace is narrow [5]. Additionally, gel immersion EMR may also be useful for a gastric neoplasm at the greater curvature of the upper gastric body with polyposis.



► **Fig. 4** Resected specimen. Both lesions were seen (arrowhead).



► Fig. 5 No residual tumor at post-endoscopic mucosal resection ulcer scar in follow-up endoscopy 3 months later.

## Bibliography

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#### Competing interests

The authors declare that they have no conflict of interest.

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#### References

- Oda I, Saito D, Tada M et al. A multicenter retrospective study of endoscopic resection for early gastric cancer. Gastric Cancer 2006; 9: 262–270
- [2] Yachida T, Kobara H, Tada N et al. Endoscopic mucosal resection under gel immersion for superficial nonampullary duodenal epithelial neoplasms. Endoscopy 2021. doi:10.1055/a-1544-7810
- [3] Kuwabara H, Chiba H, Tachikawa J et al. Efficacy of under-gel endoscopic mucosal resection method for colonic lesion extending into the diverticulum. Endoscopy 2022; 54: E292–E293
- [4] Takada K, Hotta K, Imai K. Gel immersion endoscopic mucosal resection with acetic acid spray for sessile serrated lesion extending close to the appendiceal orifice. Digestive Endoscopy 2022; 34: e115–e116. doi:10.1111/den.14343
- [5] Miura K, Sudo G, Saito M et al. Gel immersion endoscopic mucosal resection for early gastric cancer near the pyloric ring. Endoscopy 2022. doi:10.1055/a-1730-4674

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