

Successful Resection of a Gastric Tumor With Severe Fibrosis Using Endoscopic Submucosal Tunnel Dissection and a Picking Technique With a Clutch Cutter

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CASE REPORT

Resections of gastric tumors with severe fibrosis by the endoscopic submucosal dissection (ESD) procedure are still difficult in some cases.¹ Endoscopic submucosal tunnel dissection has been reported to be a good method for providing traction,^{2,3} and the usefulness of a picking technique with a clutch cutter (CC) for a protruding rectal tumor with the muscle-retracting sign has recently been reported.⁴ We report successful resection of a gastric tumor with severe fibrosis using endoscopic submucosal tunnel dissection and a picking technique with a CC.

ESD was performed for a 75-year-old man with gastric adenocarcinoma in the posterior wall of the lesser curvature of the lower body of the stomach. A mucosal incision was made in the lateral side of the lesion, and the incision was then extended to create a one-half of a circumferential incision with an IT knife-2 in the anal side using the near-side approach method⁵ in retroflex view. During submucosal dissection, we unexpectedly observed the severe fibrosis (Figure 1). Because we could not approach the area of severe fibrosis horizontally in a retroflex view, we created a submucosal tunnel from the oral side to the anal side with a CC in a forward view as a rescue plan.

The submucosal tunnel provided good traction for the fibrosis area, and we could approach the area of severe fibrosis horizontally in a forward view (Figure 1). An appropriate dissection line was identified, and we picked, pulled, and cut with the tip of the CC (picking technique) (Figure 2). Using this technique, we released part of the severe fibrosis (Figure 2). Finally, the tumor was removed (Figure 2 and Video 1; watch the video at <http://links.lww.com/ACGCR/A28>). Histological examination revealed intramucosal carcinoma with negative resection margins.

Video 1. Video showing resection of a gastric tumor with severe fibrosis using endoscopic submucosal tunnel dissection and a picking technique with a CC.

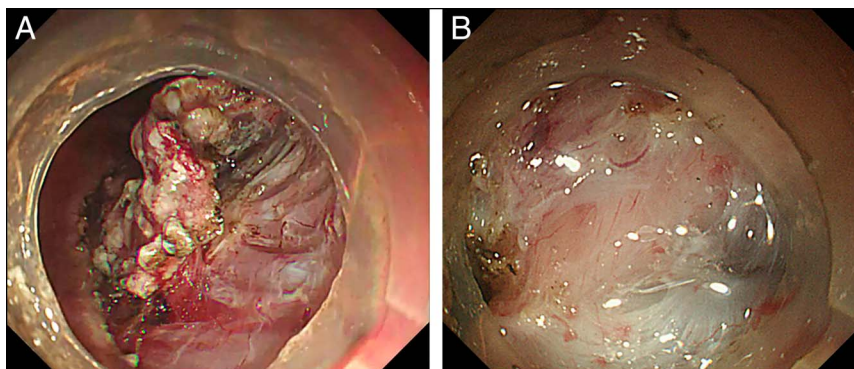


Figure 1. Figure showing the gastric tumor with severe fibrosis. (A) During submucosal dissection, we observed severe fibrosis in a retroflex view. (B) A submucosal tunnel provided good traction for the fibrosis area, and we could approach the area of severe fibrosis horizontally in a forward view.

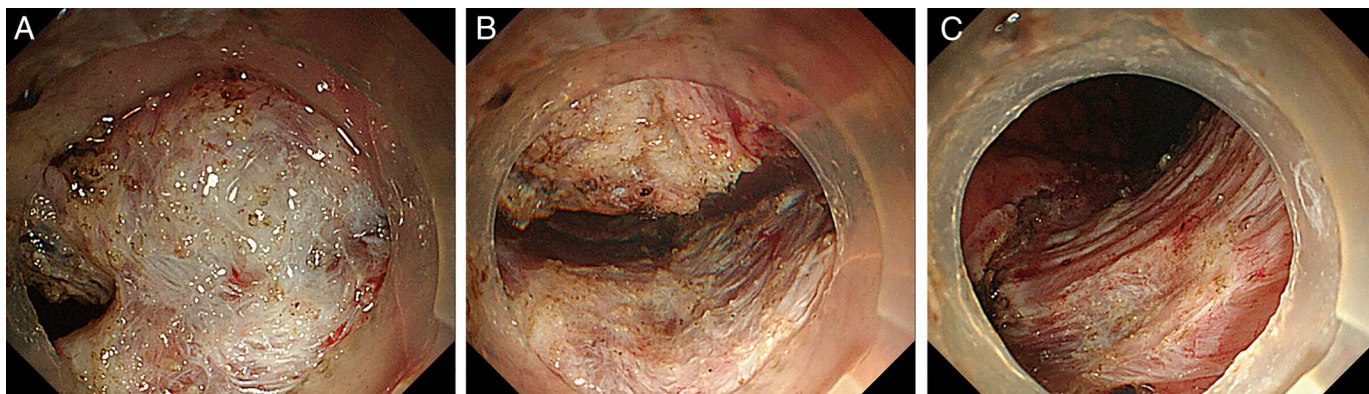


Figure 2. Figure showing the picking technique after the ESTD. (A) An appropriate dissection line was identified, and we picked, pulled, and cut with the tip of the CC (picking technique). (B) Using this technique, we released the part of severe fibrosis. (C) The tumor was removed.

The benefits of the picking technique may be a higher en bloc R0 resection rate and a lower perforation risk than those using conventional ESD. The reason for these possible benefits is that a severely fibrotic layer can be accurately detached by using this technique. On the other hand, the disadvantage of the picking technique may be a longer time required to complete the procedure. The reason for this is that a fibrotic layer can only be detached little by little. We consider that the picking technique is useful for severely fibrotic lesions.

DISCLOSURES

Author contributions: S. Abiko wrote the manuscript and is the article guarantor. K. Nakajima, K. Hirata, K. Suzuki, K. Kinoshita, K. Hatanaka, Y. Yamamoto, and H. Naruse edited the manuscript.

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