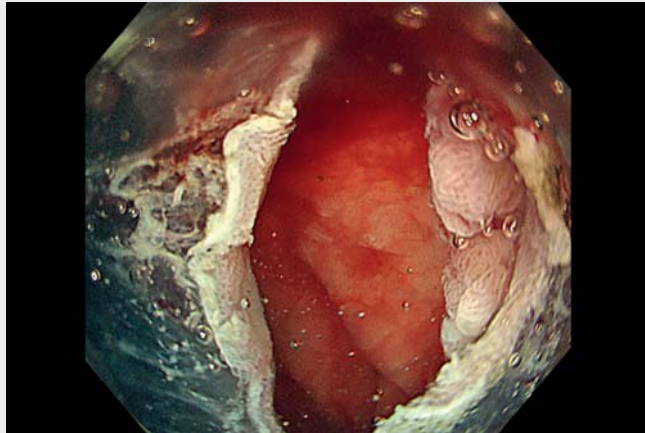


## Colorectal gel immersion endoscopic submucosal dissection using the tunneling method



▶ **Video 1** Successful gel immersion colorectal endoscopic submucosal dissection using the tunneling method.



▶ **Fig. 1** Endoscopic image showing a laterally spreading, granular-nodular, mixed-type tumor, 50 mm in diameter, located in the ascending colon. The lesion was on the gravity side in the supine position and was suitable for gel immersion.

Colorectal endoscopic submucosal dissection (ESD) is now widely used for the treatment of colorectal tumors using several strategies. The effectiveness of the pocket-creation method combined with saline immersion has been reported with an improved endoscopic visual field and submucosal approach due to the

buoyancy of the lesion and reduced the amount of submucosal injection. Its disadvantages include a poor visual field during bleeding and dissipation of coagulation ability with monopolar devices [1, 2]. However, gel immersion ESD has been reported to overcome these issues [3–5]. As the colorectum has a large lumen and may cause difficulties for gel immersion, it is assumed that a closed lumen such as a pocket or tunnel would facilitate gel immersion; therefore, the strategy of performing gel immersion ESD in combination with the tunneling method was devised.

Herein, we report a combination of gel immersion ESD and tunneling in a colorectal tumor (▶ **Video 1**). A 71-year-old woman presented with a 50-mm laterally spreading, granular-nodular, mixed-type tumor located in the ascending colon (▶ **Fig. 1**). Mucosal incision and submucosal dissection during gel immersion ESD were performed using a new electro-surgical knife (GoldKnife T-type 1.5 mm; Micro-Tech Co., Ltd, Nanjing, China), which allowed local injection of hyalu-

ronic acid solution. A suitable approach to the submucosal layer and smooth creation of the tunnel were achieved owing to the buoyancy of the gel (▶ **Fig. 2a**). Bleeding in the tunnel was clearly visible in the gel, and hemostasis could be quickly and easily secured. After tunnel penetration, mucosal incision and dissection on both sides of the tunnel were also performed smoothly (▶ **Fig. 2b, c**). The tumor was completely excised without perforation (▶ **Fig. 2d**). Colorectal gel immersion ESD using the tunneling method may be an alternative approach.

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### Competing interests

The authors declare that they have no conflict of interest.

### The authors

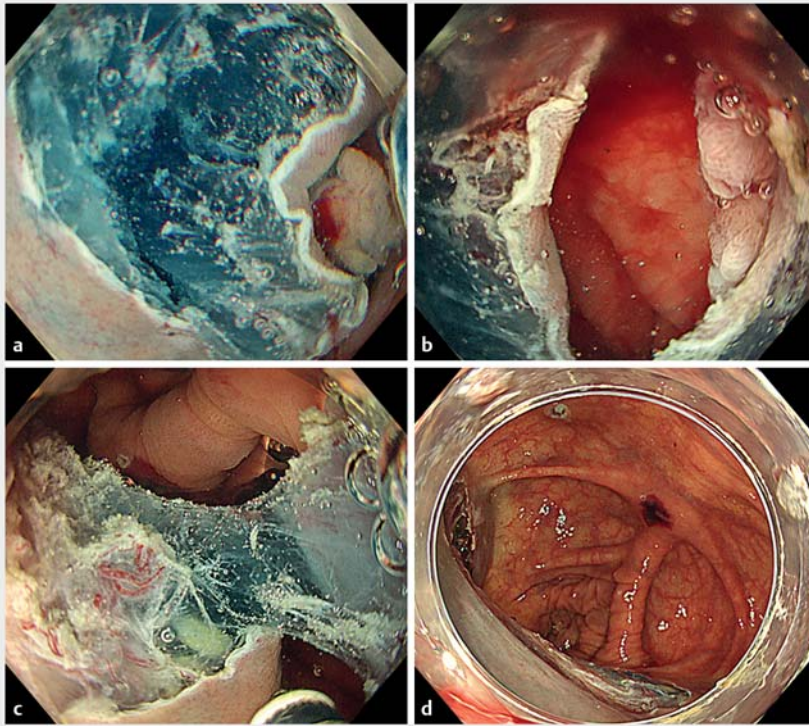
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► **Fig. 2** Gel immersion endoscopic submucosal dissection using the tunneling method. **a** A suitable approach to the submucosal layer at the start of tunnel creation owing to the buoyancy of the gel. **b** After tunnel penetration. **c** Smooth mucosal incision and dissection were performed on both sides of the tunnel owing to the buoyancy of the gel. **d** Mucosal defect after gel immersion endoscopic submucosal dissection using the tunneling method.

## References

- [1] Harada H, Nakahara R, Murakami D et al. Saline-pocket endoscopic submucosal dissection for superficial colorectal neoplasms: a randomized controlled trial (with video). *Gastrointest Endosc* 2019; 90: 278–287
- [2] Yamamoto H, Hayashi Y, Despott EJ. The pocket-creation method for endoscopic submucosal dissection combined with saline-immersion: another potential option to overcome challenges in colorectal endoscopic submucosal dissection. *Gastrointest Endosc* 2019; 90: 288–289
- [3] Tashima T, Nakano Y, Jinushi R et al. Gel immersion endoscopic submucosal dissection for an anorectal tumor with hemorrhoids close to the dentate line. *Endoscopy* 2022; 54: E298–E299
- [4] Nakano Y, Tashima T, Jinushi R et al. Conversion from conventional esophageal endoscopic submucosal dissection to the gel immersion method. *Endosc Int Open* 2021; 9: E1756–E1757
- [5] Nakano Y, Tashima T, Jinushi R et al. Gel immersion endoscopic submucosal dissection: clinical experience with 13 cases of superficial esophageal cancer. *Endosc Int Open* 2022; 10: E1302–E1306

## Bibliography

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