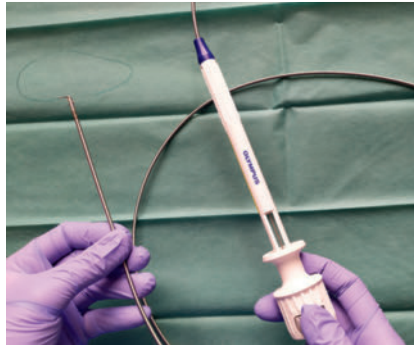


Refractory gastrocutaneous fistula after gastrostomy removal successfully treated with submucosal dissection and endoscopic suture

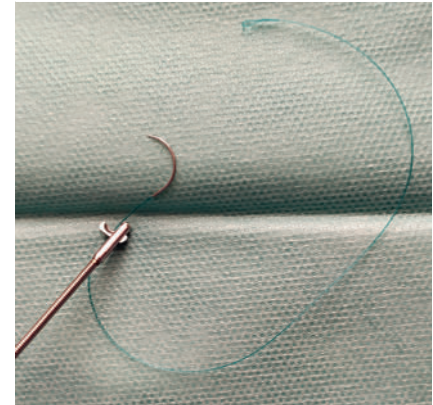


Placement of a gastrostomy tube is a basic procedure involving the creation of a gastrocutaneous fistula through which a tube or button device is placed. The tube can be removed when access is no longer required for patients who recover from their disease. The tract starts to close within the first day and usually closes within 3 days. However, a fistula may persist in 25% of cases [1]. Surgical closure has been widely replaced by endoscopic techniques. Various techniques have been described in small patient series: argon plasma coagulation, silver nitrate, biopsy with forceps, endoscopic submucosal dissection or electrocautery can be used for de-epithelization of the fistulous tract. Fibrin glue, clips [2], an over-the-scope clip [3], or bands can be used for closure. Nevertheless, simple means are not always effective and sometimes the combination of mucosal dissection with submucosal closure was described to be effective after failure of standard treatments [4].

Therefore, we progressively combine those two techniques from the first closure attempt to improve one-shot success [5]. We report the case of a 37-year-old patient with a persistent gastrocutaneous fistula 8 weeks after gastrostomy removal. We de-epithelialized the fistulous orifice using a submucosal dissection technique to promote healing and then closed the orifice with endoscopic suture (SutuArt; Olympus, Tokyo, Japan) (► Fig. 1, ► Fig. 2) using the V-loc wire (Medtronic, Dublin, Ireland) (► Video 1). The patient was discharged on day 1 without any adverse event and the gastrocutaneous fistula was completely healed at the 4-month clinical re-evaluation.



► Fig. 1 Sutuart needle (Olympus, Tokyo, Japan).



► Fig. 2 Endoscopic scissors (Olympus, Tokyo, Japan).

We can assume that this technique may be a therapeutic option for refractory gastro-cutaneous fistulas.

Endoscopy_UCTN_Code_TTT_1AO_2AO

Conflict of Interest

The authors declare that they have no conflict of interest.

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► Video 1 Procedure of endoscopic submucosal dissection combined with endoscopic suture of a gastrocutaneous fistula after percutaneous endoscopic gastrostomy tube removal.

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References

- [1] Hucl T, Spicak J. Complications of percutaneous endoscopic gastrostomy. *Best Pract Res Clin Gastroenterol* 2016; 30: 769–781. doi:10.1016/j.bpg.2016.10.002
- [2] Teitelbaum JE, Gorcey SA, Fox VL. Combined endoscopic cauterization and clip closure of chronic gastrocutaneous fistulas. *Gastrointest Endosc* 2005; 62: 432–435. doi:10.1016/j.gie.2005.04.047
- [3] Mercky P, Gonzalez J, Aimore Bonin E et al. Usefulness of over-the-scope clipping system for closing digestive fistulas. *Dig Endosc* 2015; 27: 18–24. doi:10.1111/den.12295
- [4] Lafeuille P, Wallenhorst T, Lupu A et al. Endoscopic submucosal dissection combined with clip for closure of gastrointestinal fistulas including those refractory to previous therapy. *Endoscopy* 2022; 54: 700–705. doi:10.1055/a-1641-7938
- [5] Gay-Chevallier S, Lupu A, Rivory J et al. Closure of non-healing gastrocutaneous fistula after percutaneous endoscopic gastrostomy by endoscopic submucosal dissection and over-the-scope clip. *Endoscopy* 2019; 51: E125–E126. doi:10.1055/a-0858-9796

Bibliography

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