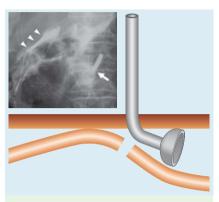
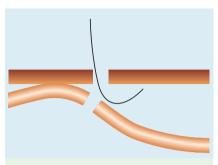
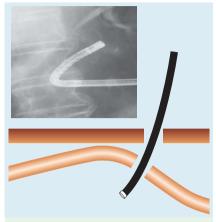
# Usefulness of an ultrathin endoscope in recanalization of a disrupted fistulous tract following percutaneous endoscopic gastrostomy or jejunostomy



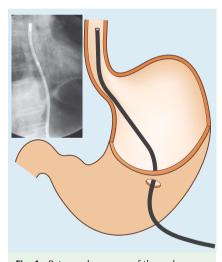
**Fig. 1** Disruption of the fistulous tract during the replacement of a gastrostomy tube. Misplacement of the new gastrostomy tube (arrow) in the abdominal cavity was confirmed on a fistulogram by the extravasation of Gastrografin (arrowhead).



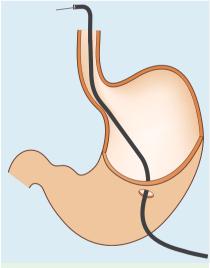
**Fig. 2** Inability to insert a guide wire into the stomach from the original skin incision under fluoroscopic guidance.



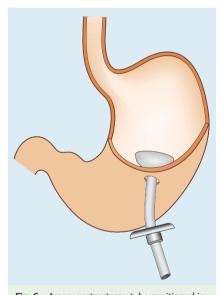
**Fig. 3** Successful insertion of an ultrathin endoscope through the skin incision.



**Fig. 4** Retrograde passage of the endoscope from the gastrocutaneous tract into the esophagus.



**Fig. 5** A loop wire inserted through the biopsy channel of the endoscope and pushed out through the mouth.



**Fig. 6** A new gastrostomy tube positioned in the recanalized gastrocutaneous tract, using the pull-through technique.

A disrupted fistulous tract is a rare complication associated with the replacement of a gastrostomy or jejunostomy tube [1]. It is important to confirm that the replacement tube is accurately positioned in the same site as the previous one. Although adverse events following fistula disruption have been reported [2,3], little is known about how the fistula can be successfully recanalized.

We have encountered disruption of the tract in six cases with a gastrocutaneous fistula and two cases with a jejunocutaneous fistula. The disruption was identified on a fistulogram by the extravasation of Gastrografin, during the replacement of the feeding tube (**Fig. 1**). We first attempted to insert a guide or loop wire into the gastrointestinal tract from the original skin incision under fluoroscopic guidance. However, the wire failed to pass into the gastrointestinal lumen in five of the eight patients (**Fig. 2**). In these five patients, we then inserted an ultrathin endoscope (GIF XP-260 or XP-260N, Olympus Optical Co., Ltd., Tokyo,

Japan) into the gastric or jejunal lumen from the site of the skin incision, as described previously [4,5]. The endoscope was successfully inserted into the gastrointestinal tract in four of the five patients (**• Fig. 3**). In patients with a disrupted gastrostomy, the endoscope was retrogradely passed upward toward the oral cavity via the esophagus (**• Fig. 4**), and then a loop wire was passed out though the mouth via the biopsy channel (**• Fig. 5**). A new feeding tube was positioned in the recanalized gastrocutaneous

tract using the pull-through technique (**p** Fig. 6).

Percutaneous endoscopic gastrostomy is usually carried out again after the closure of a disrupted gastrocutaneous tract when a guide wire cannot pass through the disrupted tract. An endoscopic approach through the original skin incision facilitates the search for a route into the gastrointestinal tract. This technique is useful for the recanalization of the fistula and continuation of enteral feeding.

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#### **Bibliography**

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