Direct percutaneous endoscopic jejunostomy using a transgastrostomic endoscope in patients with previous endoscopic gastrostomy

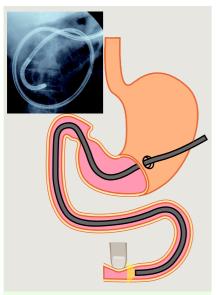


Fig. 1 A small-caliber endoscope is inserted through the gastrocutaneous tract and advanced to the jejunum. The site of placement of the jejunostomy tube is determined by finger indentation and transillumination.

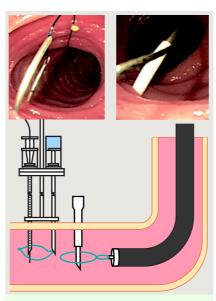


Fig. 2 The jejunum is fixed by a double lumen gastropexy device. A Seldinger needle then punctures the abdomen and is inserted toward an open snare.

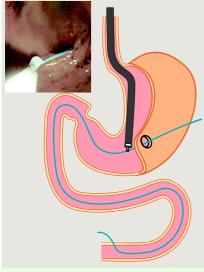


Fig. 4 The loop wire is grasped by an orally inserted endoscope and pulled out through the mouth with the endoscope.

Direct percutaneous endoscopic jejunostomy (DPEJ) is an effective method for preventing aspiration following percutaneous endoscopic gastrostomy (PEG) [1].

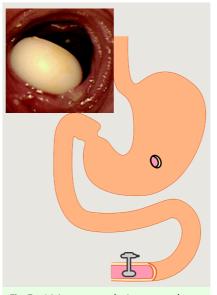


Fig. 5 A jejunostomy tube is connected to the loop wire and placed in the jejunum by the pull-through technique.

Although DPEJ provides a stable access to maintain enteral feeding, it requires an endoscope of more than 160 cm long for tube placement [2].

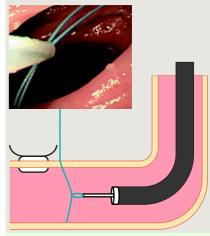


Fig. 3 A loop wire is inserted through the outer sheath of the Seldinger needle and grasped with the snare.

We attempted DPEJ using a transgastrostomic endoscope in post-PEG patients. A small-caliber endoscope (GIF XP-240 or GIF XP-260; Olympus Optical Co., Ltd., Tokyo, Japan) was inserted and advanced to the jejunum through the mature gastrocutaneous tract (> Fig. 1). After conducting the jejunopexy with a double lumen gastropexy device (Create Medic Co., Ltd., Yokohama, Japan), a Seldinger needle was inserted through the abdomen toward an open snare using fluoroscopic guidance (Fig. 2). Next, a loop wire was inserted through the outer sheath of the Seldinger needle, grasped by the snare (> Fig. 3), and pulled out with the endoscope through the gastrocutaneous tract. The loop wire was then grasped in the stomach by an orally inserted endoscope (Fig. 4) and pulled out through the mouth. Finally, a jejunostomy tube was placed in the jejunum by the pullthrough technique (Fig. 5).

A total of 30 DPEJ procedures were attempted in 29 patients, resulting in 28 (93.3%) successful placements. One unsuccessful placement was due to jejunum migration away from the abdominal wall during the puncture. The other failure was due to a lack of transillumination. Maple et al. reported that the two major reasons for unsuccessful placement were

lack of transillumination and the inability to pass the endoscope up to the jejunum [3]. The reason for the higher rate of success in the present study is that insertion of the endoscope through a gastrostomy is easy and causes little distension of the stomach. Less distension of the stomach facilitates the placement of the jejunostomy tube. DPEJ using a transgastrostomic endoscope should be recommended in cases with previous gastrostomy.

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Bibliography

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