

## Jejunal catheter placement for levodopa–carbidopa infusion in a patient with Billroth I gastrectomy

A new treatment method of continuous delivery of a gel suspension (20 mg/mL levodopa plus 5 mg/mL carbidopa; Duodopa, Abbvie, Maidenhead, UK) to the small intestine via a jejunal tube has recently been used with increased frequency in selected patients with advanced Parkinson's disease [1]. Usually a classic percutaneous endoscopic gastrostomy (PEG) kit is placed first, then a pigtail catheter is introduced through the PEG and deployed in the jejunum; a portable pump can then be attached externally [2]. There are no reports in the literature of levodopa–carbidopa infusion pump placement in patients with gastric resections.

We present the case of a 45-year-old man with long-standing Parkinson's disease and a history of Billroth I gastrectomy because of duodenal ulcer bulbostenosis 20 years previously and hepaticojejunostomy 19 years previously because of cholelithiasis. First, a nasojejunal tube was placed for a 72-h trial of levodopa–carbidopa. As the patient had a good clinical response, he was scheduled for a levodopa–carbidopa infusion pump placement under propofol sedation. After introduction of the endoscope, his stomach was maximally insufflated. The patient had fibrous postoperative scars in the medial line, so the skin puncture site was identified 2 cm below the left costal arch and 2 cm left laterally to the medial line. At the gastric site, the needle was introduced near the gastroduodenal anastomosis (▶ Fig. 1 and ▶ Fig. 2) and a PEG kit (15 Fr; Abbvie) was placed using a classic “pull” technique. A jejunal catheter (9 Fr for PEG 15 Fr, Freka intestinal tube; Fresenius Kabi) was passed through the PEG into the stomach, and then a snare was used to place the catheter in the jejunum (▶ Fig. 3 and ▶ Fig. 4). Post-interventional radiology showed adequate positioning of the catheter without signs of pneumoperitoneum. The levodopa–carbidopa infusion was connected 6 h after the intervention. The patient did not develop any procedure-related complica-

tions during the 3-month follow-up and his neurological symptoms improved significantly.

This case report demonstrates that the levodopa–carbidopa infusion catheter can be placed without major problems in patients with gastric resections.

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**Competing interests:** None

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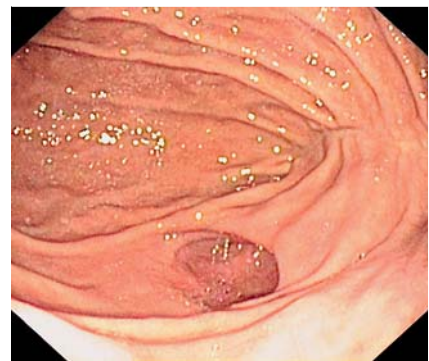
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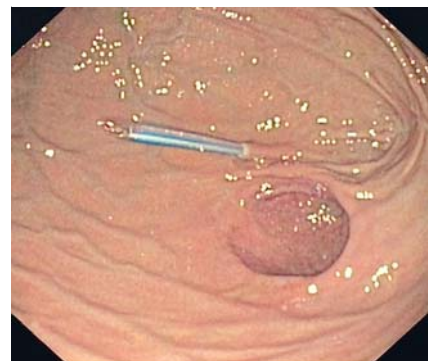
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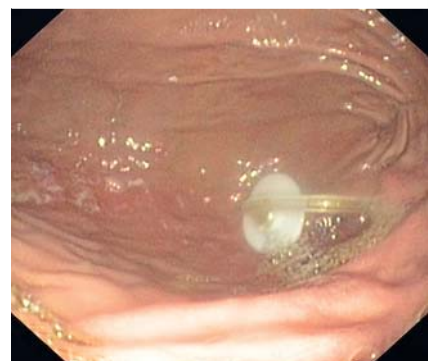
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**Fig. 1** Endoscopic view of gastroduodenal anastomosis, in a patient with Billroth I gastrectomy, hepaticojejunostomy, and Parkinson's disease, before placement of a jejunal catheter for continuous infusion of levodopa–carbidopa.



**Fig. 2** Needle introduction near the anastomosis.



**Fig. 3** Percutaneous endoscopic gastrostomy with jejunal catheter in situ.



**Fig. 4** External view of percutaneous endoscopic gastrostomy with jejunal catheter.