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 (20mg/mL levodopa plus 5mg/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 choledochoilithiasis. 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 6h after the intervention. The patient did not develop any procedure-related complications 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.

Competing interests: None

Pave Markos¹, Branko Bilic¹, Vladimir Miletic², Nadan Rustemovic¹
¹ Department of Gastroenterology and Hepatology, Endoscopy Unit, University Hospital Centre Zagreb, Zagreb, Croatia
² Department of Neurology, University Hospital Centre Zagreb, Zagreb, Croatia

References

Bibliography
DOI http://dx.doi.org/10.1055/s-0042-112977
Endoscopy 2016; 48: E288
© Georg Thieme Verlag KG Stuttgart · New York
ISSN 0013-726X

Corresponding author
Pave Markos, MD
Endoscopy Unit
Department of Gastroenterology and Hepatology
University Hospital Centre Zagreb
Kispaticeva 12, 10000 Zagreb
Croatia
Fax: +385-1-2367143
pave.markos@gmail.com

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.