

GASTRIC BEZOAR AND DUODENAL ULCER AS COMPLICATION OF DUODOPA® THERAPY IN A PATIENT AFFECTED BY PARKINSON'S DISEASE

Cerrone P₁, Sucapane S₁, Marchese M₂, Rando G₂, Lombardi L₂, Pistoia M₃, Marini C₄, Carolei A₅

1 Neurology Unit, San Salvatore Hospital, L'Aquila

2 Surgical and Diagnostic Endoscopy Unit, San Salvatore Hospital, L'Aquila

3 Department of Biotechnological and Applied Clinical Sciences, University of L'Aquila - Director of Surgical and Diagnostic Endoscopy Unit, L'Aquila

4 Department of Health, Life and Environmental Sciences, University of L'Aquila - Director of Neurology Unit, San Salvatore Hospital, L'Aquila

5 Department of Biotechnological and Applied Clinical Sciences, University of L'Aquila - Director of the School of Neurology

Background

Continuous duodenal infusion of levodopa/carbidopa intestinal gel (LCIG) (Duodopa®) is an established treatment to control motor fluctuations in Parkinson's Disease (PD). Oral treatment with levodopa and dopamine agonists is the main treatment in the initial phase of PD, but over time, the duration of the response to treatment becomes shorter. In this phase usually appear motor complications, as on/off phenomena, freezing and dyskinesia, and this affects seriously the quality of life of patients. PD involves also gastrointestinal motility and slows down absorption in the stomach, affecting oral levodopa absorption and causing inconstant plasma drugs levels. Duodenal infusion allows a steady absorption of levodopa directly in the small bowel, bypassing the stomach and reducing motor fluctuations. It also avoids diet-related competition for intestinal uptake mechanisms. We report a case of a duodenal ulcer associated with a gastric bezoar involving the jejunal probe in a patient who underwent intrajejunal percutaneous endoscopic gastrostomy (PEG-J) for LCIG infusion in 2016.

Case report

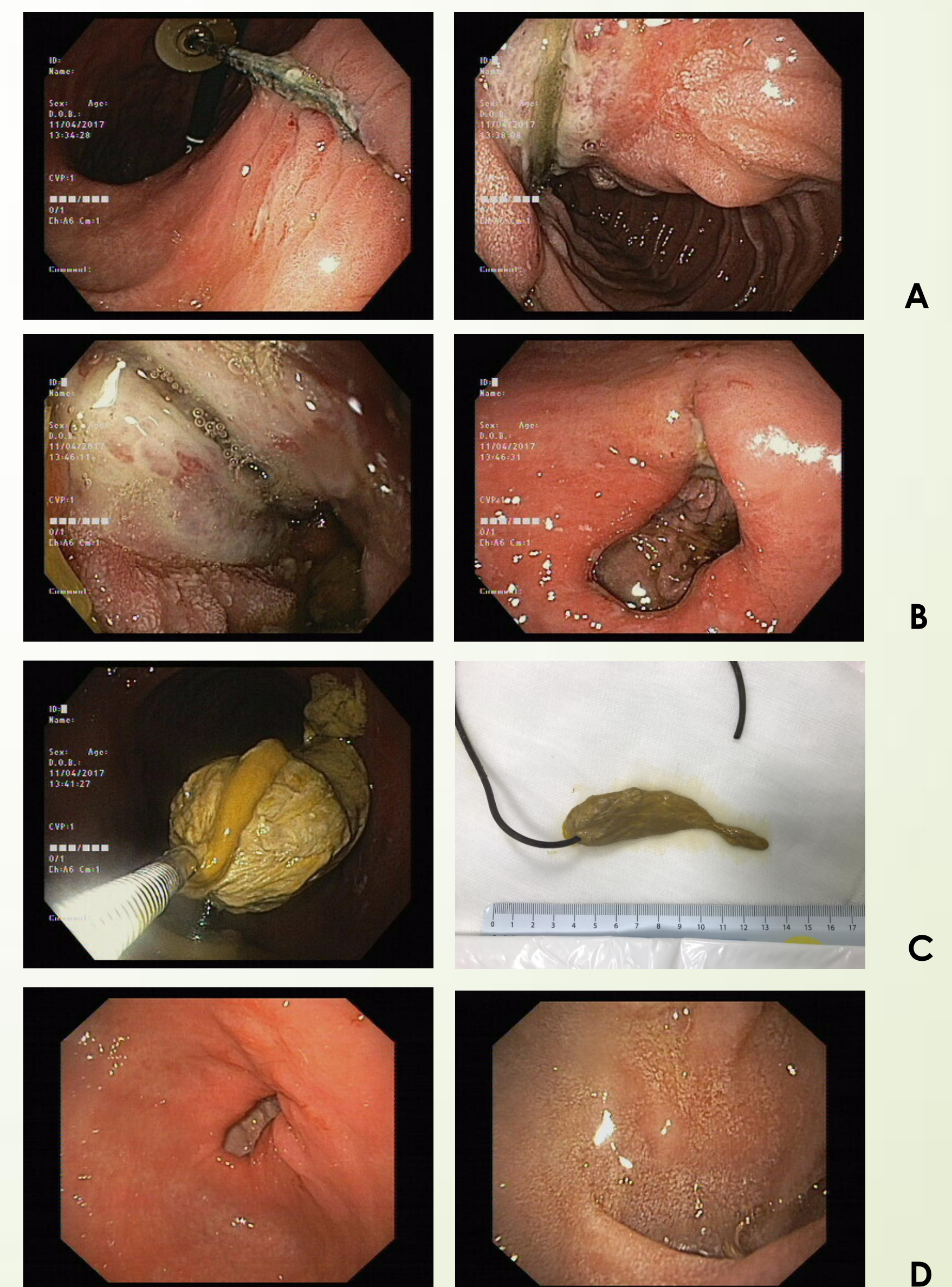
The patient, a 70 year-old man, was affected by PD for ten years. He experienced severely disabling motor fluctuations, with wearing off phenomena, unpredictable off periods and frequent freezing. Treatment with LCIG was started in 2016. There were no complications during the surgical procedure and in the post-procedural days. After the start of infusional therapy with Duodopa®, the patient had an excellent clinical response, with improvement in activities of daily living (ADL) and instrumental activity of daily living (IADL), decreasing of rigidity and related pain and marked reduction of the off time during the day. The frequency of freezing episodes also decreased.

The patient was admitted in our unit in April 2017, complaining of abdominal pain, dyspepsia and constipation. The symptoms started two weeks before. Esophagogastroduodenoscopy (EGDS) showed an intestinal bezoar enveloping the tail of the catheter, associated with an ulcerative lesion of duodenum due to traction to the jejunal tube. The patient was treated with endoscopic removal of jejunal tube and of bezoar, and with IV pantoprazole 40 mg three times a day. PD treatment was continued through PEG with gastric infusion of Duodopa® and transdermal rotigotine.

After a month, EGDS showed a complete wound healing with deformation of pylorus.

Discussion

LCIG represents a valid therapeutic choice in patients with advanced PD, in order to reduce levodopa-associated motor complications and to improve quality of life. Complications of the treatment include those related to gastrostomy, those related to infusion system and those related to drug. Complications related to the infusion system are the most frequent. Cases of dislocation of the jejunal tube are reported in the literature and affect about 1.5% of patients treated. Duodenal bulb perforation is a rare complication of PEG-J dislocation. In our case there was a traction of the tube that caused a decubitus in the duodenum with related ulcer; the proximal extremity of jejunal tube was trapped in a bezoar. If it had not been treated, the lesion would probably have evolved in a perforation. In our knowledge, this is the second case of a gastric bezoar complication of Duodopa® therapy described.



A: EGDS showing duodenal ulcer due to the traction of jejunal probe
B: on the right, the lesion involves pylorus

C: gastric bezoar during procedure (on the left) and after removal (on the right)

D: EGDS after a month showing complete resolution of duodenal ulcer (on the right) with deformation of pylorus (on the left)

In conclusion LCIG is an established and effective treatment for advanced and complicated PD, but complications may occur and have to be promptly treated. The neurologist should not underestimate symptoms that may be related to LCIG complications.

References

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