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Small bowel obstruction secondary to distal migration of the intestinal probe in a patient with an endoscopic gastrostomy for continuous carbidopa-levodopa infusion

Obstrucción de intestino delgado secundaria a migración distal de la sonda intestinal en una paciente con gastrostomía endoscópica para la infusión continua de carbidopa-levodopa

Levodopa is the gold standard treatment for Parkinson's disease (PD). However, due to its short plasma half-life, requiring repeated doses, long-term levodopa use (usually within 5–10 years after initiating treatment) is associated with motor fluctuations and dyskinesias. Impaired gastric emptying is also common in PD patients and leads to unpredictable responses to oral medication. These facts induce disability and lower quality of life.[1] Therapeutic alternatives for patients with advanced PD include deep brain stimulation, continuous subcutaneous apomorphine infusion and intrajejunal levodopa-carbidopa infusion. Continuous intraduodenal/intrajejeunal infusion of a levodopa-carbidopa (L-C) gel (Duodopa®, Abbvie) – which contains levodopa 20 mg/ml plus carbidopa 5 mg/ml – improves motor fluctuations[2,3] (*off* time and severity and dyskinesia), non-motor symptoms,[4] autonomy for basic activities[5] and quality of life.[6] This therapy is performed by placing a specific percutaneous endoscopic gastrostomy (PEG) kit (Frecka® PEG gastric set) that contains inside a 9Fr duodenal pigtail (Freka® CH9 intestinal tube) probe. This technique requires cooperation between the neurologist that sets the indication for this treatment and does a close surveillance of the patient, and the Gastroenterologist/Endoscopist that places the PEG probe and performs the surveillance and replacements of the device.

A 76 year-old woman with advanced PD complicated with motor fluctuations required Duodopa® administration to control her motor symptoms. Therefore, a PEG-Duodopa was placed, with Propofol sedation, after informing the patient and her family about the benefits and the possible risks related to the procedure. Thirty minutes before the PEG-duodopa allocation, the patient received antibiotic prophylaxis with Cefazolin 2 g. It was performed without any immediate complications and lack of complications was verified by immediate endoscopic control, as usual. The patient was discharged from hospital 2 days after the procedure, with marked improvement of the motor symptoms, since PEG-duodopa was used for the first time 24 h after its allocation. After eleven days, the patient was admitted to the emergency room because of abdominal distension with pain and vomiting, which was highly suggestive of an intestinal obstruction. Plain abdominal X-ray showed the duodenal probe tip of the Freka® CH9 Intestinal Tube projected in right iliac fossa and absence of pneumoperitoneum. Severe abdominal pain persisted despite administration of analgesics, so an urgent abdominal CT was indicated to discard any other complication. It confirmed the presence of the pigtail probe coiled in the ileum due to distal migration, conditioning severe retrograde small bowel dilation (Fig. 1). Since the patient had no response to conservative treatment, emergency surgery was indicated, performing an ileostomy, extraction of the probe and primary suture without associated complications. Ten days after surgery, after discussing the case between surgeons, endoscopists and neurologists, and with the agreement of the patient, placement of a new duodenal pigtail type probe was carried out without further complications.

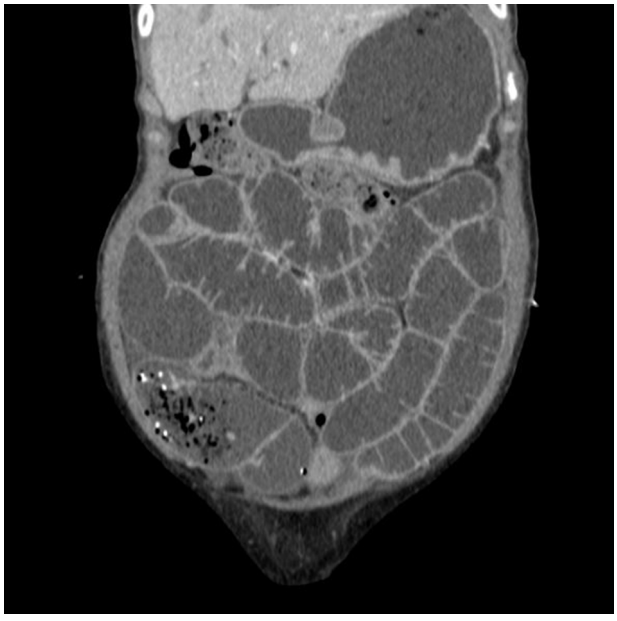

Figure 1 TC. Pigtail probe coiled in distal ileum due to migration, conditioning severe retrograde small bowel dilation.

Continuous L-C gel infusion is a highly effective and well accepted alternative for the treatment of advanced PD patients.[5,6] Duodenal infusion avoids problems related to delayed stomach transit. It has a similar safety profile to oral medication providing better control of motor and non motor symptoms in those cases. However, specific complications related to probe placement cannot be overlooked. They include complications related to: (a) the stoma, like infection, granuloma development, etc., (b) the gastrostomy probe, like buried bumper syndrome; and (c) the pigtail probe: distal migration, bending, or probe break. Events that involve the probe are very frequent (a study[7] described that more than 60% of the patients had at least 1 event with duodenal probe after one year with continuous L-C infusion). Distal migration is generally asymptomatic, with spontaneous anal expulsion. Perforation or intestinal obstruction[8] secondary to probe migration as in the case exposed is exceptional.

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Intestinal Burkitt lymphoma in a patient with coeliac disease

Linfoma de Burkitt intestinal en un paciente con enfermedad celíaca

Non-Hodgkin lymphomas (NHL) represent a small percentage of all gastrointestinal tumors. The major risk factors for gastrointestinal NHL include immunosuppression and celiac disease (CD).[1,2] Burkitt lymphoma (BL) is an infrequent aggressive variant of NHL that frequently affect the gastrointestinal tract. BL is common in young children in Africa who also have malaria and Epstein–Barr virus infections. The latter infection is associated with the majority of African cases. Outside of Africa, BL is infrequent and is especially related to human immunodeficiency virus (HIV) infection. Although CD is associated to NHL, no cases of BL have been reported in adult patients with celiac disease. We report a patient with long history of CD that developed intestinal BL.

A 52 year-old male with a 20-year history of CD with free-gluten diet compliance was admitted for 10 kg weight loss, right lower quadrant discomfort, fever, diarrhea, and hypoesthesia in his left mandibular area over a period of 3 weeks. No significant findings were observed on physical examination. Laboratory data showed an erythrocyte sedimentation rate of 96 mm/hour and lactate dehydrogenase (LDH) of 1011 U/L (normal value: 236–460 U/L). The complete blood count, renal function test, liver enzymes and CD antibodies were all within normal limits. The anti-HIV test was negative. Abdominal CT showed an irregular thickening of the terminal ileum that protruded to the cecum with multiple enlarged lymph nodes in the ileocecal region (Fig. 1a). During hospital stay, the patient developed right ptosis and ipsilateral IV cranial nerve palsy without other neurological symptoms. A head MRI and a cerebrospinal fluid sample were normal. Colonoscopy exam showed a 4-cm pseudopolipoid ileal lesion with friable surface that protruded through ileocecal valve, which was biopsied (Fig. 1b). Pathology exam of the mass showed a ''starry sky'' pattern composed of several reactive macrophages with phagocytosis of apoptotic tumor cells and diffuse proliferation of neoplastic cells with medium size nuclei that infiltrated the ileal chorion. Immunohistochemistry stains showed expression of CD20, homogenous expression of BCL6, and lack of expression of BCL2. Ki67/MIB1 staining was homogenously positive in almost all tumor cells. These findings were compatible with BL. Bone marrow biopsy also showed lym-