



Results of 12-month rescue treatment with Teduglutide in severely active and parenteral nutrition-dependent Crohn's disease

To the Editor,

Short bowel syndrome (SBS) is caused by the loss of extensive segments of the small intestine as seen in Crohn's disease (CD) (1,2) and is characterized by malnutrition; thus, patients with SBS often require parenteral nutrition (PN) (3). Alternatives can maximize the remnant intestinal absorptive capacity, e.g., glucagon-like peptide 2 analog teduglutide. It inhibits gastric acid secretion and motility, stimulates intestinal blood flow, increases the intestinal barrier, and enhances absorption (4). Teduglutide has a safety profile (5), but adverse events are mostly related to hyperplastic and hypertrophic effects. Thus, patients with SBS having fluctuations in disease activity, e.g., in active CD, have always been excluded from treatment with teduglutide.

For the first time, we report the results of 12-month treatment with teduglutide in a 42-year-old Caucasian woman affected by severely active CD with SBS. Informed consent was obtained.

The patient underwent total colectomy in 1991 because of supposed ulcerative colitis. Then, CD was diagnosed, and since 2010, she underwent many intestinal resections. Many treatments had been unsuccessfully attempted (corticosteroids, infliximab, azathioprine, adalimumab, methotrexate, and certolizumab).

Given her precarious clinical conditions, treatment with 0.05 mg/kg/day teduglutide was started in August 2015. Before treatment, she was in a poor condition. Nutritional deficiency and electrolyte imbalance were present. PN was initiated 24 h/day and 7 days/week, with a total of 1600 kcal/day per 3000 mL/day.

After 12 months, teduglutide played a key role in ameliorating her severe nutritional deficiencies and ensuring her survival with good quality of life. Without teduglutide, her life would have been seriously compromised. Our patient was unable to totally wean from PN and reduce the number of days of infusion, but the PN volume has been progressively reduced to 2500 mL/day (an almost 20% reduction), with occasional excep-

tions. Moreover, total PN calories have been reduced from 1600 to 1400 kcal. An increase was observed in her body weight and BMI (from 17.5 to 24.5 kg/m²). We are confident that more positive goals in PN reduction may be achieved with further therapy.

Crohn's disease complications and treatment side effects were excluded on close clinical, laboratory, and imaging (US, CT, and MRI) surveillance.

More studies with a larger number of patients and prolonged treatment are necessary to confirm the usefulness and safety of teduglutide in those with severely active CD. Our experience provides elements to support its efficacy and may pave the way for future research on teduglutide, even in other gastrointestinal diseases with fluctuating activities.

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of Policlinico Umberto I, Sapienza University.

Informed Consent: Written informed consent was obtained from the patient who participated in this study.

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REFERENCES

1. Burness CB, McCormack PL. Teduglutide: a review of its use in the treatment of patients with short bowel syndrome. *Drugs* 2013; 73: 935-47. [CrossRef]

2. Blonski W, Buchner AM, Aberra F, Lichtenstein G. Teduglutide in Crohn's disease. *Expert Opin Biol Ther* 2013; 13: 1207-14. [\[CrossRef\]](#)
3. Buchman AL, Scolapio J, Fryer J. AGA technical review on short bowel syndrome and intestinal transplantation. *Gastroenterology* 2003; 124: 1111-34. [\[CrossRef\]](#)
4. Jeppesen PB, Pertkiewicz M, Messing B, et al. Teduglutide reduces need for parenteral support among patients with short bowel syndrome with intestinal failure. *Gastroenterology* 2012; 143: 1473-81. [\[CrossRef\]](#)
5. Pape UF, Maasberg S, Pascher A. Pharmacological strategies to enhance adaptation in intestinal failure. *Curr Opin Organ Transplant* 2016; 21: 147-52. [\[CrossRef\]](#)

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