LIRAGLUTIDE IN CHRONIC INTESTINAL FAILURE: OVERVIEW AND CASES REPORT

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Background and importance

Chronic Intestinal Failure (CIF) is a rare pathology, included in the 2013 Orphanet list, in which Parenteral nutrition is a life-saving and often lifelong therapy, because of nutrients loss and electrolyte and fluids imbalance related to intestinal absorption impairment and high daily stoma output. Antimotility and anti-secretory drugs can reduce fecal output and promote a better nutrients and fluids absorption.
An impaired hormonal “ileo-colonic brake”may further worsen imbalance in end-jejunostomy short bowel syndrome (SBS-IF) patients. Intestinal adaptation can occur in the remaining part of the bowel through secretion of gut trophic peptide hormones such as glucagon-like peptide 2 and 1. Since with large enteral resections GLP secretion is virtually absent, treatment with GLP-analogues could be useful. Liraglutide is a GLP-1-analogue which reduces gastric hypersecretion and slows gastric emptying. In an open-label, 8-week pilot study liraglutide significantly reduced the ostomy wet weight output by 474 ± 563 g/d (P = 0.049).

Aim and objectives

The primary aim of this study was to evaluate the effect of liraglutide on fecal output in patients with SBS-IF and a high fecal output.

Material and Methods

Data on fecal output, March 2018 to September 2019, were collected for patients with SBS-IF and a high fecal output despite treatment with antimotility and anti-secretory drugs who received liraglutide in order to reduce the ostomy output.

Results

Ten patients received liraglutide at standard dose. Small bowel length was less than 140 cm. Pre-treatment fecal output was 3,230 ml/day. Two patients did not respond to treatment, while the remainig 8 patients (80%) achieved a post-treatment fecal output of 1,983 ml/day, with an average reduction of 1,402 ml/day (-43%) after 8 weeks of therapy. (Table 1) One patient discontinued therapy following intestinal recanalization, while therapy is ongoing for 7 patients. (Table 2)
Liraglutide was well tolerated and all patients reported an improvement in Quality of Life (QoL).

Table 1. Fecal output

	Fecal output (ml/day)
Pre-treatment	3,230
Post treatment	1,402

Table 2. Therapy after liraglutide

Therapy after liraglutide	Patient number
Recanalization	1
Ongoing	7
No response	2

Conclusion and Relevance

Liraglutide seems to have a place in the limited treatment armamentarium available for patients with SBS-IF, who have a significantly impaired QoL.

References and/or Acknowledgements

M. Hvistendahl et al. Effect of Liraglutide Treatment on Jejunostomy Output inPatients With Short Bowel Syndrome: An Open-Label PilotStudy.Journal of Parenteral and EnteralNutritionVolume 42 Number 1January2018 112–121