Endobarrier system: Duodenal jejunal endoscopic linear bypass

Andrea Formiga
Istituti Clinici Zucchi Monza, Italy

Introduction: The Endobarrier system is an innovative reversible endoscopic system indicated for the treatment of diabetes mellitus type II and obesity. The duration of treatment is one year. The process involves a decrease in glycated hemoglobin of two points in the year of treatment with reduction and/or elimination of oral hypoglycemic agents and/or units of insulin administered daily, improved lipid profile and liver function tests, reduction of blood pressure, and weight loss of about 40% of excess body weight. The system is totally endoscopic, simulates the effect obtained with a laparoscopic gastric bypass but without making sections and/or removal organ.

Method: From March 2014 to November 2016, we performed 20 placements of Endobarrier system (15 men, 5 women), of whom 16 successfully concluded and extracts, four still in progress; two system extractions of foreign patients who had undergone placement in other countries (Australia, South Arabia), one missed positioning for non-compliant patient anatomy (inability to access the capsule in the duodenal bulb). The average hospital stay of patients was one day. The mean age of patients was 46 (24-63 aa) years. All positioning and extraction operations were performed under general anesthesia.

Results: The mean preoperative BMI was 45.8, average BMI 37.8 postoperatively; preoperative Hb A1c 8.9/postoperative HbA1c 6.6; PA values systolic/diastolic mean preoperative 134/85.7 and; PA values postoperative systolic/diastolic 124.7/71.8.

Complications: We found the appearance of a duodenal ulcer bleeding in the vicinity of the metal anchoring system that was treated with medical drugs and with the removal of the system; in the same patient appearance of mild pancreatitis with high levels of amylase (400) and lipase (200) resolved spontaneously after removal. One hepatic abscess in a foreign patient came to our attention from other structure to which it was addressed in urgency.

Conclusions: The endoscopic endoluminal treatments are now having great expansion and interest even in the treatment of morbid obesity and diabetes. The Endobarrier system is an innovative totally endoscopic malabsorptive reversible treatment that can have an important role in the treatment of diabetes mellitus type II and obesity. Our experience has shown the effectiveness and feasibility of Endobarrier system. It remains to evaluate the results in the time after removal.

Biography
Andrea Formiga has completed his PhD at Milan University Italy. In 2002, he has completed Post-doctoral Specialty in General Surgery. He is the Director of General Surgery at Istituti Clinici Zucchi Spa – Monza, Italy. He is a member of International Advisory Board for Apollo Endosurgery. He has published many documents in surgical and endoscopic treatments for general surgery and obesity procedures. He has participated at many national and international congresses.

a.formiga1971@gmail.com