

Endoscopic Gastroplasty. Initial Experience

Thierry Manos¹, Patrick Noel^{1,2,3}, Christophe Bastid¹, Ramon Vilallonga^{4,5,6}, Marius Nedelcu^{1,6}, Anamaria Nedelcu⁶

¹ELSAN, Clinique Bouchard, Marseille, France

²ESH Dubai Health Care City, Dubai, UAE

³Mediclinic Airport Road, Abu Dhabi, UAE

⁴Endocrine, metabolic and bariatric Unit, General Surgery Department, Hospital Vall d'Hebron, Barcelona, Spain

⁵Universitat Autònoma de Barcelona, Barcelona, Spain

⁶ELSAN, Clinique Saint Michel, Toulon, France

Abstract

Introduction: Less invasive endoscopic bariatric procedures are under development for the management of class I of obesity. The purpose of our study is to evaluate endoscopic gastroplasty (EG) using a suturing method, as well as the perioperative care and outcomes, during one-year period.

Methods: This is a prospective single-center study over 17 patients using the EG under general anesthesia with overnight inpatient observation. The analyzed variables were: change in body weight; and adverse effects. In order to analyze correlations between BMI, and identify predictors for better weight loss after EG, we created 2 groups of patients: Group A (with BMI < 35 and primary obesity – 10 patients) and Group B (with BMI > 35, or previous gastric balloon or bariatric surgery – 7 cases).

Results: A total of 17 patients underwent endoscopic procedures for primary obesity or weight regain. All patients were female with a mean age of 38.7 years. The mean BMI was 34.8 kg/m² (range: 30.8–44.1). There were no major intra-procedure adverse events or during the follow up. All patients were discharged on the 1st or 2nd day following the procedure and in the future the procedure will be proposed in ambulatory setting. Four patients (23.5 %) were complaining of moderate postprocedural pain for a mean period of time of 7.75 days (range 2-15 days) and two other patients complained about nausea and vomiting alleviated by the intravenous drugs. Of the 17 initial patients, 4 were available for 3-month of follow-up, 7 for 6-month, 3 for 9-month, and 3 completed the 12-month assessment with the mean EWL of 46.1 %. According to ASGE definition, 70.6 % (n= 12) of the 17 patients reached >25% of EWL. All patients in group A reached a successfully weight loss and the mean EWL was 72.4 %, but 5 out 7 patients in group B failed to achieve an EWL> 25 %. Moreover, all patients who underwent previous bariatric surgery failed to achieve any results in term of weight loss following EG.

Conclusions: Endoscopic gastroplasty represent a safe minimal invasive approach that can be considered as an effective and well tolerated procedure especially for primary obesity treatment. For patients with previous bariatric surgical procedures or with severe obesity the results are less favorable.

Key words: endoscopic plication, endoscopic gastroplasty, class I, obesity