

Gastric Embolization as Treatment for Overweight Patients; Efficacy and Safety

S Elens ¹, T Roger ², M Elens ³, J Rommens ², A Sarafidis ², E Capelluto ², C Delcour ⁴

Affiliations + expand

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Abstract

Objectives: The aim of this study was to evaluate the efficacy and safety of left gastric artery (LGA) embolization for the treatment of overweight patients who weren't candidates for bariatric surgery.

Materials and methods: We retrospectively collected data of 16 patients who underwent a selective embolization of the LGA. The mean body mass index (BMI) before intervention was $28.9 \text{ kg/m}^2 \pm 2.5$, and therefore, patients were not candidates for bariatric surgery in Belgium. The embolization was realized with 500-700 μm particles via the right common femoral artery approach. Before and following the intervention, an upper endoscopy was performed. Patient demographics, weight loss, hunger sensation and a satisfactory scale were reviewed.

Results: Between February 2015 and May 2017, 16 overweight patients were treated, one embolization was unsuccessful. Four (25%) patients were lost in follow-up. Nine (56%) patients showed early weight loss, one (6%) maintained his bodyweight and one (6%) patient underwent bariatric surgery 2 years after consultation. Only one (6%) patient had a gastric ulceration on control endoscopy. One (6%) patient ended in the intensive care unit for pancreatitis and gastric perforation. The mean weight loss was $8 \text{ kg} \pm 5.12$, reducing their mean BMI to 25.5 ± 3.5 . The hunger sensation was decreased, and patients were satisfied.

Conclusion: This is a preliminary study in an overweight population that appears to induce weight loss and appetite suppression. Larger studies are needed to confirm these preliminary findings.

Keywords: Bariatric; Embolization; Endovascular; Overweight.