

Intragastric Fluid Filled Balloon for Weight Reduction - A Single Bariatric Center Study

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Abstract

Introduction: Obesity is a pandemic health problem which significantly reduces life expectancy because of its strong association with severe cardiologic, respiratory, dermatological, gastrointestinal, genito-urinary and psychiatric complications. Intragastric fluid filled balloon (IGB) is a minimally invasive option for weight reduction. Several studies have demonstrated its superiority to lifestyle changes in reducing the morbidity and mortality associated with obesity. Long-term data is very limited, while the balloons are not anticipated to maintain weight beyond 1 year unless an efficient nutritional program is maintained.

Aim: This study evaluated the safety and efficacy of intragastric fluid filled balloon in the weight reduction process for patients referred for weight cutback in a center of excellence in bariatric surgery.

Methods: This is a retrospective, single institution study which included all the consecutive patients opting for gastric balloon therapy at Ponderas Academic Hospital, Bucharest between October 2017 and October 2019. Two surgeons certified in endoscopy performed the procedures of implantation and extraction.

Results: Forty-four patients were included in this study, with a mean age of 36 years. There were 34 (77%) females and 10 (23%) males. The mean index BMI was 32.56 kg/m² and the mean BMI after 6 months (post extraction of the balloon) was 28.83 kg/m². Length of stay was 24 hours for 40 (91%) of patients and 48 hours for 4 (9%) patients. Minor complications were registered in 8 (18%) cases and these were not followed by balloon extraction. Overall total weight loss (TWL) mean was 11.76%.

Conclusions: Our data demonstrated a clear benefit of intragastric fluid-filled balloon on weight loss, after six month placement of the balloon. At the end of treatment, body weight, excess body weight and BMI were significantly lowered as compared with initial measurements. Successful weight loss was defined as $\geq 10\%$ weight loss after 6 months with intragastric balloon in situ. Further research is needed in order to better define the long-term results after balloon extraction.

Key words: minimally invasive bariatric treatment, intragastric balloon, upper GI endoscopy