Body Contouring Plastic Surgery Decreases Long-Term Body Mass Index Regain Following Laparoscopic Adjustable Gastric Banding, A Matched Retrospective Cohort Study.

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Abstract

Background: Laparoscopic adjustable gastric banding (LAGB) bariatric surgery is the safest yet least effective reported method for massive weight loss (1). Thirty to 50 percent of patients undergoing LAGB will regain back part or most of their lost weight within 2-4 years (2). Recent evidence suggest that patients who underwent body contouring plastic surgery (BCPS) following bariatric Roux-en-Y technique demonstrate improved long-term weight control compared with those who did not (3). Our study objective was to evaluate the effect of BCPS following LAGB on long-term BMI control.

Methods: A retrospective cohort of patients aged 18-50 years, who underwent LAGB surgery between 1997 and 2007. Long-term weight regain was evaluated and compared between group of patients who underwent subsequent plastic surgery (LBCPS) and a group of LAGB alone (LAGBO). Groups were matched for age, gender, and initial body mass index (BMI). A multivariate Cox regression was used to evaluate the risk for long-term BMI regain.

Results: LBCPS (N=18) had lower endpoint BMI and BMI regain percentage compared with LAGBO (N=54) (24.64±3.76 kg/m^2 vs. 31.0±7.2 kg/m^2, p<0.001; 12.7±13.6% vs. 34.3±30.9%. p<0.001, respectively). No differences were observed in time from LAGB to minimal weight, and total follow-up time between both groups (2.3±1.5 vs. 2.7±1.8 years, p=0.39; 7.3±2.9 vs. 8.0±2.7 years, p=0.32, respectively). BCPS had an independent strong protective effect for endpoint BMI regain over 25% (see figure 1) and BMI≥30kg/m^2 (HR=0.19 , p=0.025; HR=0.13, p=0.046, respectively).

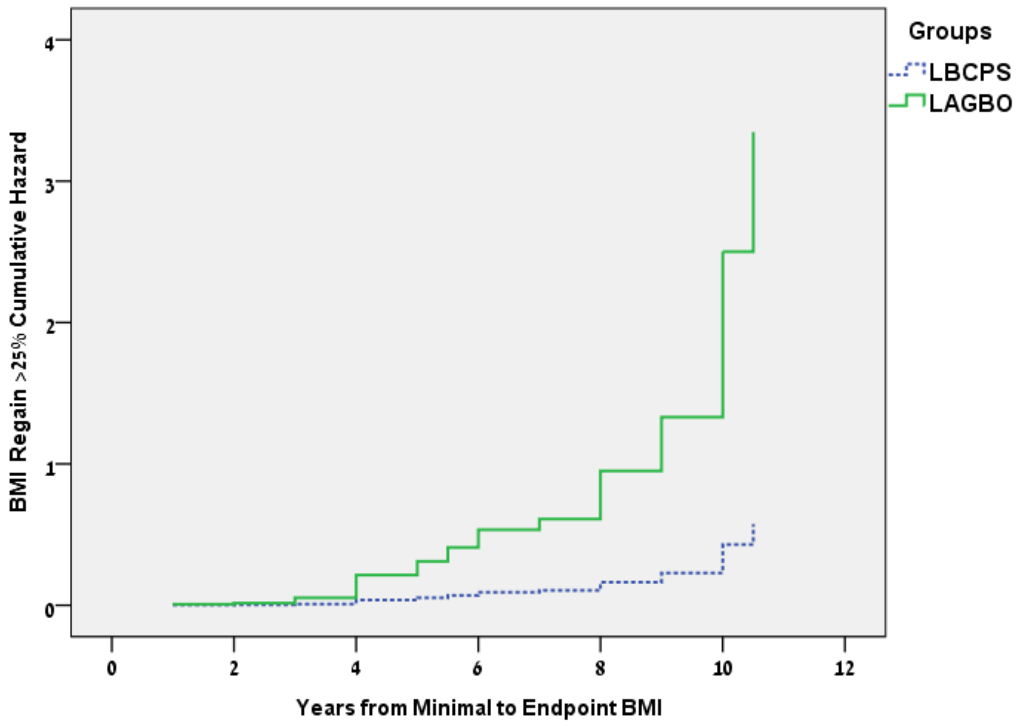

Figure 1 - Hazard Function for BMI Regain >25% in LBCPS and LAGBO groups

Conclusion: When compared with patients who did not undergo BCPS following LAGB, patients who underwent body contouring plastic surgery following LAGB had improved long-term BMI control.

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