



Invited Commentary

Commentary on "Laparoscopic sleeve gastrectomy versus laparoscopic gastric bypass: A retrospective cohort study"



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Dear Editor of *IJS*,

I read the article "Laparoscopic sleeve gastrectomy (LSG) versus laparoscopic gastric bypass: A retrospective cohort study" with great interest. The authors presented their 6 years outcomes of 154 Roux-en-Y gastric bypass (RYGB) and 152 LSG patients. Percentage excess weight loss (%EWL) was around 70% postoperatively after 2 years of LSG and 3 years after RYGB. Both cohorts regained weight and at 6 years %EWL for RYGB was 61% compared to 50% for LSG ($p = 0.001$). The 6 years failure rate of LSG was 46.9% compared to 11.5% for RYGB. Does this translate into re-emergence of comorbidities need to be explored in future studies. Resolution of diabetes (79.3% Vs 61.9%), hypertension (52.1% Vs 48.9%) and dyslipidaemia (51% Vs 51.5%) was better in the RYGB group but not statistically significant. Nutritional deficiencies had higher prevalence with RYGB. Anaemia rate increased from 3% to 15% and hypoalbuminemia from 1% to 30% in RYGB patients. Calcium and vitamin B12 deficiencies were more common in RYGB. These two are the commonest performed bariatric procedures in the world. However, the data for long-term direct comparisons is scarce. We would like to discuss the available literature in comparison to this article.

SM-BOSS randomised clinical trial (RCT) showed non-significant difference between excess body mass index (BMI) loss of RYGB and SG (68.3% Vs 61.1%) at 5 years [1]. Gastroesophageal reflux (GERD) was more prevalent in SG compared to RYGB group (31.8% Vs 6.3%). The current study did not analyse post-operative GERD, a well debated topic after SG. In the SLEEVEPASS RCT the %EWL at 5 years was 57% in the RYGB cohort compared to 49% in the SG cohort [2]. There was no quality of Life (QOL) statistically difference between both groups. The current study did not investigate the QOL and we encourage future studies to report it. The STAMPEDE RCT reported that at 5 years, reductions in BMI, waist circumference and waist-to-hip ratio were significantly greater after RYGB and SG than after intensive medical therapy [3]. HbA1c level of $\leq 6\%$ at 5 years was significantly better in RYGB (29%) and SG (23%) compared to medical therapy group (5%).

O'Brien in his meta-analysis of outcomes at ≥ 10 years found that RYGB had mean %EWL of 55.4%. There were only 2 articles ($n = 79$) for SG reporting mean EWL of 57% [4]. The re-operation rate for RYGB was 8–64% compared to 32–36% for SG. Jimenez in his cohort of 390 patients with RYGB and 134 SG reported no significant difference in % EWL between them at 10 years (56% Vs 53.2%, $p = 0.746$) [5]. They concluded that RYGB was superior for hypertension and dyslipidaemia remission unlike the current study. Li Ra et al. [6] in their retrospective study of 15,319 SG with 19,954 RYGB found that SG patients had overall lower risk of reintervention compared to RYGB (hazard ratio, 0.78). They also noted that SG had lower risk of nutritional, endoscopic, radiologic and surgical reinterventions compared to RYGB. Future studies should report %EWL, weight regain, comorbidity resolution, nutritional status, conversions, reinterventions and QOL for robust comparison of outcomes in long term.

Ethical approval

This type of article does not need ethical approval.

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