



Invited Commentary

Comparing weight loss outcomes by laparoscopic Roux-en-Y gastric bypass and sleeve gastrectomy; a systematic review and meta-analysis – Commentary



Undoubtedly, the world is experiencing an epidemic of obesity and its related comorbidities. Obesity affects all age groups and causes significant financial burden on the society. The available medical treatment offers a temporary reprieve. Surgical options offer a viable alternative that guarantee durable weight loss and ameliorate most of obesity related comorbidities.

Laparoscopic Roux Y gastric bypass (RYGB) and vertical sleeve gastrectomy (LSG) are two of the most- commonest weight reduction surgery in the world. According to the American Society for Metabolic and Bariatric surgery, the number of these procedures performed continues to grow year on year [1]. Although both procedures are effective in inducing comparable weight loss and have similar surgical risks, LSG has a higher revisional rate.

Comparable outcomes in terms of percent total weight loss (%TWL) can be achieved at short to long-term basis. As the study by Park et al. has shown, both procedures achieved a maximal %TWL approximately 80% at 12 and 18 months postoperatively afterward, this subsequently leveled off [2]. In the meta- analysis conducted by Guraya et al., improved %TWL outcomes among patients who have undergone RYGB was reported during short and long term follow up, while LSG showed significant improvement in %TWL in mid-term [3].

Besides effective %TWL, disease resolution is one of the barometer for which an effective weight reduction surgery is assessed. As study after study have shown, with effective weight reduction comes disease resolution. While Weight reduction surgery is recognized as a viable treatment option for obese patients with type 2 diabetes, differences between the available interventions in their effectiveness improving glycemic control among patients with and without type 2 diabetes are still unclear, as a certain gradient of efficiency among the surgical interventions has been reported in several trials [4]. In the STAMPEDE trial which compares the best medical treatment vs sleeve gastrectomy and Roux-en-Y gastric bypass over a 5 year -period. The study was unable to detect statistically significant difference between the 2 surgical groups was found for the primary end point of hemoglobin A_{1c} of less than 6.0%, other end points, such as the number of antidiabetic medications, showed superiority of Roux-en-Y gastric bypass vs sleeve gastrectomy [5]. Other studies including randomized trials comparing

LSG and RYGB reports similar outcome in terms of glycemic control among these patients. In studies comparing LSG with RYGB head to head, RYGB is superior for diabetic remission rates in the long term.

Obese patients with preexisting GERD and large hiatal hernia present another challenge as to what is the most effective surgical treatment for them. RYGB is generally regarded as superior to LSG in these cases. Several studies have shown that in patients with preexisting GERD were better treated by RYGB compared with LSG. Also, these studies have shown worsening of reflux symptoms after LSG, and patients with no GERD at baseline more often reported de novo reflux symptoms 5 years after LSG than after RYGB.

Finally, both procedures are effective in achieving durable %TWL, improved quality of life as well as disease resolution.

Conflicts of interest

None.

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