

Comparison Between the Results of Laparoscopic Sleeve Gastrectomy and Laparoscopic Roux-en-Y Gastric Bypass for Morbid Versus Super Morbid Obesity

Yotsuya Medical Cube

Hideharu Shimizu, Yosuke Seki, Eri Kikkawa, Kazuko Sonoda, Tetsuya Nakazato, Kazunori Kasama

Background

Data on the effectiveness of laparoscopic sleeve gastrectomy (LSG) for super morbid obesity in patients with body mass index (BMI) ≥ 50 are scarce. Whether LSG alone can replace laparoscopic Roux-en-Y Gastric Bypass (LRYGB) as a standard bariatric procedure is questionable.

Methods

For this study, 129 morbidly obese patients who underwent LSG (68 patients) or LRYGB (61 patients) between 2006 and 2009 were retrospectively analyzed. We compared the weight loss effect of LSG to that of LRYGB according to BMI.

Results

The percentage of excess weight loss (EWL) at the 1-, 3-, 6-, 12-, 24-month follow up points of the patients who underwent LSG and LRYGB were comparable. According to BMI, The percentage of EWL of the patients with an initial BMI ≤ 35 in LSG (n=14) and LRYGB (n=11) group at 1-, 3-, 6-, 12-month follow up points were 36.1 and 31.2, 74.2 and 70.8, 78.8 and 99.0, 92.7 and 89.1%, respectively. As for $35 < \text{BMI} \leq 40$, the percentage in LSG (n=20) and LRYGB (n=25) group at the same follow up points were 40.7 and 23.7, 50.0 and 47.2, 64.7 and 69.0, 76.9 and 78.3, 83.6 and 85.6%, respectively. As for $40 < \text{BMI} \leq 50$, the percentage in LSG (n=20) and LRYGB (n=27) at the same follow up points were 22.6 and 20.4, 43.8 and 40.9, 72.5 and 59.6, 80.5 and 75.2, 72.0 and 80.7%, respectively. There was no significant difference between both groups. However, the percentage of EWL of the patients with $50 < \text{initial BMI} < 60$ in LSG (n=7) and LRYGB (n=5) group were 14.7 and 20.9 (P=0.21), 27.9 and 35.3 (P=0.14), 36.3 and 56.1% (P=0.04), 35.5 and 69.7% (P=0.01), 32.5 and 60.9% (P=0.02) at 1-, 3-, 6-, 12-, 24-month after operation. Compared with LSG, LRYGB obtained better weight loss outcomes for super morbid obesity ($50 < \text{BMI} \leq 60$).

Conclusions

LSG can be a standalone procedure for morbidly obese patients with BMI < 50 as well as LRYGB, but LSG is not expected to be performed as a solo procedure for the patients with BMI over 50.