

Comparison Between the Effects of Laparoscopic Sleeve Gastrectomy and Laparoscopic Roux-en-Y Gastric Bypass on Type 2 Diabetes Mellitus in Morbidly Obese Japanese Patients: A Retrospective 1 Year Study

¹The Department of Weight Loss Surgery, Yotsuya Medical Cube, Tokyo, Japan

Hideharu Shimizu¹, Yosuke Seki¹, Eri Kikkawa¹, Kazuko Sonoda¹, Tetsuya Nakazato¹, Kazunori Kasama¹

<Background>Laparoscopic Roux-en-Y gastric bypass (LRYGB) provides sustained weight loss and leads to well-documented remission of Type 2 diabetes (T2DM), whereas data on the effectiveness of laparoscopic sleeve gastrectomy (LSG) on T2DM are scarce<Methods>We conducted a retrospective study on the therapeutic effect on type 2 diabetes and biochemical characteristics in 16 morbidly obese T2DM subjects undergoing LSG and 24 subjects undergoing LRYGB before and at 1, 3, 6, 12 months after surgery, matched for age, gender, BMI, fasting plasma glucose, HbA1c, insulin, C-peptide, HOMA-IR, DM duration<Results>The preoperative median BMI was 40.8 kg/m² in the LSG group and 44.9 kg/m² in the LRYGB group and as for T2DM, most subjects were not severe type from their history and biochemical markers. The percentage of excess weight loss at the 1, 3, 6, 12-month follow up points after LSG and LRYGB were 28.8 and 27.8, 46.2 and 47.0, 64.2 and 63.9, 74.2 and 71.8%, respectively. The remission rate of T2DM at the same follow up points after LSG and LRYGB were 38 and 35, 75 and 73, 87 and 93, 93 and 100%, respectively.<Conclusion>For not severe T2DM in Japanese morbidly obese Japanese patients, the therapeutic effect of LSG and LRYGB on T2DM was comparable at 1-year interval.