

**Supplementary Table 1.** Preoperative and postoperative clinical characteristics in SG or RYGB

Characteristic	SG preoperatively (n=17)	RYGB preoperatively (n=13)	P1 <sup>a</sup>	SG postoperatively (n=17)	RYGB postoperatively (n=13)	P2 <sup>b</sup>
T2DM, yes/no	7/10	8/5	0.462	-	-	-
Age, yr	30.12±7.07	32.54±8.59	0.404	-	-	-
Sex, male/female	4/13	6/7	0.255	-	-	-
Weight, kg	105.35±19.34	124.75±29.72	0.039 <sup>c</sup>	94.80±18.06	111.32±27.67	0.058
BMI, kg/m <sup>2</sup>	38.20±4.72	45.31±9.49	0.024 <sup>c</sup>	34.07±4.48	39.96±8.52	0.037 <sup>c</sup>
WHR	0.94±0.07	1.01±0.08	0.022 <sup>c</sup>	0.94±0.06	0.96±0.05	0.342
TG, mmol/L	2.04±1.40	1.88±1.38	0.761	1.34±0.55	1.49±0.72	0.538
TCHOL, mmol/L	5.27±0.75	5.46±0.95	0.539	4.91±0.83	4.55±0.74	0.220
HDL, mmol/L	1.09±0.20	1.08±0.19	0.955	1.02±0.17	0.91±0.12	0.052
LDL, mmol/L	3.17±0.51	3.24±0.66	0.725	2.92±0.66	2.72±0.58	0.405
GSP, µmol/L	169.08±69.92	185.22±89.35	0.583	135.65±19.92	138.85±35.95	0.758
HbA1c, %	6.66±2.15	7.17±1.96	0.510	5.86±1.23	6.18±1.21	0.493
GLU, mmol/L	7.23±3.96	7.75±3.68	0.716	5.01±0.75	5.61±1.16	0.120
Insulin, mIU/L	24.10±13.72	25.02±13.95	0.858	11.66±7.13	13.71±6.75	0.430
HOMA-IR	8.03±5.98	7.89±4.09	0.943	2.74±2.09	3.29±1.56	0.438
Weight loss, kg	-	-	-	10.55±2.19	13.43±3.28	0.007 <sup>c</sup>
ΔBMI, kg/m <sup>2</sup>	-	-	-	4.12±0.90	5.35±1.62	0.025 <sup>c</sup>
%TWL	-	-	-	10.12±1.78	11.02±2.46	0.251

Values are presented as mean±standard deviation. Measured variables were counted using two independent samples *t*-test and categorical variables were calculated by applying Fisher's exact test.

SG, sleeve gastrectomy; RYGB, Roux-en-Y gastric bypass; T2DM, type 2 diabetes mellitus; BMI, body mass index; WHR, waist to hip ratio; TG, triglyceride; TCHOL, total cholesterol; HDL, high density lipoprotein; LDL, low density lipoprotein; GSP, glycated serum protein; HbA1c, glycosylated hemoglobin; GLU, fasting glucose; HOMA-IR, homeostasis model assessment of insulin resistance; ΔBMI, changes in BMI; %TWL, percentage total weight loss.

<sup>a</sup>P1 indicated the comparison between SG and RYGB preoperatively, <sup>b</sup>P2 represented the comparison between SG and RYGB postoperatively,

<sup>c</sup>P values less than 0.05.