

Table 3. Comparison of Demographic Factors, and Baseline, Post-operative, Change Levels of Glucose Homeostasis, Interleukin-1 β , Gut Hormones, and Adipokines between T2DM Patients With and Without Diabetes Remission undergoing Laparoscopic SG

	Remitters (n = 8)	Non-remitters (n = 8)	P value ^a
Age (years)	45.4 ± 9.5	47.1 ± 6.7	0.678
Sex (M/F)	3/5	3/5	1.000
Smoking (Yes/No)	2/6	1/7	1.000
T2DM duration (years)	3.4 ± 1.8	10.3 ± 5.7	0.011
Weight (kg)			
Baseline	84.4 ± 11.4	83.0 ± 12.3	0.822
Post-operative	64.5 ± 6.9***	67.3 ± 8.8***	0.489
Change	-19.9 ± 7.8	-15.7 ± 5.9	0.382
BMI (kg/m ²)			
Baseline	31.7 ± 2.2	30.4 ± 3.5	0.381
Post-operative	24.1 ± 2.2***	24.7 ± 2.9***	0.644
Change	-7.6 ± 2.5	-5.7 ± 1.8	0.105
Waist (cm)			
Baseline	104.2 ± 9.4	95.0 ± 16.9	0.198
Post-operative	85.2 ± 4.1***	85.3 ± 7.2	0.973
Change	-19.0 ± 8.7	-9.7 ± 15.8	0.279
Systolic blood pressure (mmHg)			
Baseline	127.5 ± 8.2	126.9 ± 11.4	0.902
Post-operative	119.0 ± 5.3	127.6 ± 11.4	0.073
Change	-8.5 ± 10.5	0.8 ± 18.2	0.233
Total cholesterol (mg/dL)			
Baseline	207.0 ± 71.9	227.3 ± 46.3	0.328
Post-operative	193.8 ± 30.7	218.5 ± 90.1	0.721
Change	-13.3 ± 75.9	-8.8 ± 79.7	0.645
HDL cholesterol (mg/dL)			
Baseline	38.9 ± 5.0	45.6 ± 6.0	0.050
Post-operative	45.1 ± 8.4*	47.1 ± 8.7	0.646
Change	6.3 ± 9.0	1.5 ± 8.1	0.286
Fasting blood glucose (mg/dL)			
Baseline	231.6 ± 113.5	233.4 ± 32.0	0.970
Post-operative	101.1 ± 16.5*	175.8 ± 49.7*	0.003
Change	-130.5 ± 108.1	-57.5 ± 62.4	0.120
HbA1c (%)			
Baseline	10.0 ± 3.1	10.2 ± 1.2	0.382

Post-operative	$6.0 \pm 0.5^{**}$	$8.4 \pm 1.4^*$	0.001
Change	-4.0 ± 2.7	-1.7 ± 1.6	0.161
Insulin ($\mu\text{U/mL}$)			
Baseline	20.1 ± 13.8	13.5 ± 17.0	0.130
Post-operative	$4.8 \pm 2.5^*$	$4.5 \pm 3.1^*$	0.830
Change	-15.3 ± 14.4	-8.9 ± 14.4	0.195
C-peptide (ng/mL)			
Baseline	3.9 ± 1.5	2.6 ± 1.0	0.058
Post-operative	$1.7 \pm 0.5^{**}$	$1.6 \pm 0.6^*$	0.863
Change	-2.3 ± 1.4	-1.0 ± 1.1	0.062
HOMA-IR			
Baseline	9.9 ± 5.6	7.1 ± 7.4	0.195
Post-operative	$1.2 \pm 0.7^{**}$	$2.1 \pm 1.7^{**}$	0.223
Change	-8.6 ± 5.3	-5.0 ± 6.2	0.130
Insulinogenic index			
Baseline	0.15 ± 0.11	0.16 ± 0.11	0.915
Post-operative	$0.27 \pm 0.12^{**}$	0.13 ± 0.10	0.018
Change	0.12 ± 0.09	-0.03 ± 0.10	0.007
Interleukin-1 β (pg/mL)			
Baseline	0.92 ± 0.47	0.74 ± 0.33	0.401
Post-operative	$0.43 \pm 0.24^*$	1.10 ± 0.75	0.031
Change	-0.49 ± 0.50	0.36 ± 0.77	0.021
hsCRP (mg/dL)			
Baseline	0.25 ± 0.19	0.24 ± 0.17	0.505
Post-operative	0.10 ± 0.18	0.10 ± 0.07	0.105
Change	-0.16 ± 0.28	-0.14 ± 0.14	0.798
Leukocyte (/mm 3)			
Baseline	7960 ± 2249	6765 ± 1944	0.275
Post-operative	$5110 \pm 1484^{**}$	6263 ± 1871	0.194
Change	-2850 ± 1959	-503 ± 999	0.009
Acyl ghrelin (pg/mL)			
Baseline	23.9 ± 4.8	26.3 ± 9.5	0.534
Post-operative	$11.1 \pm 3.1^{**}$	16.6 ± 8.3	0.083
Change	-12.8 ± 5.9	-9.7 ± 15.2	0.606
Des-acyl ghrelin (pg/mL)			
Baseline	59.2 ± 51.3	53.1 ± 56.1	0.645
Post-operative	$15.1 \pm 4.0^{**}$	$18.1 \pm 11.8^*$	0.651
Change	-44.1 ± 43.9	-35.1 ± 60.8	0.234

CCK (ng/mL)			
Baseline	0.94 ± 0.47	1.21 ± 0.90	0.474
Post-operative	0.94 ± 0.46	1.11 ± 0.65	0.721
Change	-0.0 ± 0.72	-0.10 ± 0.67	0.789
GIP (ng/mL)			
Baseline	0.30 ± 0.32	0.20 ± 0.13	0.798
Post-operative	0.18 ± 0.18	0.44 ± 0.65	0.574
Change	-0.12 ± 0.23	0.24 ± 0.60	0.038
GLP-1 (ng/mL)			
Baseline	4.1 ± 3.7	6.0 ± 2.5	0.248
Post-operative	6.7 ± 3.6	6.5 ± 2.7	0.898
Change	2.7 ± 5.8	0.6 ± 3.8	0.408
PYY (ng/mL)			
Baseline	2.0 ± 0.7	2.0 ± 0.6	0.980
Post-operative	5.2 ± 3.5*	5.4 ± 4.0**	0.959
Change	3.2 ± 3.7	3.4 ± 3.6	0.890
Leptin (ng/mL)			
Baseline	4790 ± 7685	12889 ± 13613	0.050
Post-operative	6542 ± 3925	7731 ± 5915	0.643
Change	1752 ± 7349	-5159 ± 15147	0.195
Adiponectin (μg/mL)			
Baseline	3.9 ± 1.4	4.0 ± 2.2	0.896
Post-operative	9.7 ± 4.7*	13.7 ± 10.4*	0.337
Change	5.8 ± 4.8	9.7 ± 11.1	0.378

AUC, the area under the curve; BMI, body mass index; CCK, cholecystokinin; GIP, gastric inhibitory peptide; GLP-1, glucagon-like peptide-1; HbA1c, glycated hemoglobin; HDL, high-density lipoprotein; HOMR-IR, homeostatic model assessment-insulin resistance; hsCRP, high-sensitivity C-reactive protein; SG, sleeve gastrectomy; T2DM, type 2 diabetes mellitus; PYY, peptide YY.

^a Between the GB and SG group.

* $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$, compared to baseline.