

Supplementary Data

Supplementary table 1: Metabolic medication use at baseline and 5 years

	No. (%)			
	Baseline		5 years	
	SR-LRYGB (n= 56)	LSG (n=58)	SR-LRYGB (n=53)	LSG (n=55)
Diabetes medication				
Biguanides	50 (89.3)	49 (84.5)	10 (19.0)	18 (35.3)
Sulfonylurea	23 (41.1)	19 (32.8)	1 (2.0)	5 (9.1)
Thiazolidinediones	5 (8.9)	0 (0.0)	0 (0.0)	0 (0.0)
Incretin mimetics	2 (3.6)	3 (5.2)	0 (0.0)	2 (3.6)
Insulin	15 (26.8)	15 (25.9)	3 (5.7)	5 (9.1)
Number of diabetes medications				
0	2 (3.6)	5 (8.6)	38 (71.7)	32 (58.2)
1	18 (32.1)	24 (41.4)	9 (17.0)	11 (20.0)
2	22 (39.3)	19 (32.8)	2 (3.8)	5 (9.1)
≥ 3	8 (14.3)	3 (5.2)	1 (1.9)	3 (5.5)
Cardiovascular medications				
Lipid lowering agents	40 (74.2)	33 (56.9)	13 (18.9)	18 (32.7)
Beta-blocker	10 (17.9)	9 (15.5)	0 (0.0)	2 (3.6)
Calcium channel blocker	11 (19.6)	9 (15.5)	4 (7.5)	5 (9.1)
ACE-inhibitor or ARB	41 (73.2)	40 (69.0)	16 (30.2)	17 (30.9)
Diuretics	12 (21.4)	10 (17.2)	4 (7.5)	4 (7.3)
Anticoagulant	22 (39.3)	24 (41.4)	5 (9.4)	8 (14.5)
Number of CV medications				
0	5 (8.9)	7 (12.1)	27 (50.9)	22 (40.0)
1	8 (14.3)	12 (20.9)	11 (20.0)	17 (30.9)
2	16 (28.6)	10 (17.2)	6 (10.9)	3 (5.5)
≥ 3	21 (37.5)	22 (38.0)	6 (10.9)	9 (16.4)

ACE refers to Angiotensin Converting Enzyme;

ARB refers to Angiotensin 2 Receptor Blockers

Supplementary Table 2: Renal Function at Baseline and 5 Years

Measure	Silastic Ring Roux-en-Y Gastric Bypass	Sleeve Gastrectomy	Mean Difference (95% CI)
Serum creatinine, $\mu\text{mol/L}$	n=49	n=54	
Baseline, mean (SD)	63.1 (14.7)	62.7 (15.2)	
Year 5, mean (SD)	73.3 (20.2)	72.4 (15.3)	
Change, baseline to 5 y, mean (95% CI)	10.3 (4.9 to 15.6)	9.7 (6.7 to 12.8)	0.5 (-5.4 to 6.5)
MDRD eGFR, mL/min/1.73 m ²	n=49	n=54	
Baseline, mean (SD)	105.3 (29.0)	110.4 (25.3)	
Year 5, mean (SD)	77.1 (18.8)	77.5 (19.2)	
Change, baseline to 5 y, mean (95% CI)	-28.2 (-35.6 to -20.9)	-32.9 (-39.2 to -26.7)	4.7 (-4.8 to 14.2)
UACR, mg/mmol	n=41	n=35	
Baseline, median (IQR)	1.1 (0.5 to 3.7)	0.5 (0.5 to 4.8)	
Year 5, median (IQR)	0.5 (0.5 to 2.9)	0.5 (0.5 to 3.5)	
Change, baseline to 5 y, median (95% CI)	0.0 (-0.4 to 0.0)	0.0 (-0.1 to 0.0)	0.0 (-0.1 to 0.7)

Abbreviations: eGFR, estimated glomerular filtration rate; MDRD, Modification of Diet in Renal Disease; UACR, urine albumin-to-creatinine ratio

Supplementary Figure 1: Changes from baseline in (a) glycated hemoglobin (HbA1c) and (b) BMI during 60 months after surgery in patients who underwent silastic-ring laparoscopic Roux-en-Y gastric bypass (closed symbols) or laparoscopic sleeve gastrectomy (open symbols). Data are mean $\pm$ SEM. P values are for comparison of the time profiles (time $\times$ surgery interaction) using a repeated-measures mixed model. *P<0.05



