

Table S2. Differences in changes in GLP-1 and secretin responses during a 360-min mixed-meal test between patients undergoing Roux-en-Y gastric bypass (RYGB) and one-anastomosis gastric bypass (OAGB) with complete mixed meal test outcome data. Summary statistics are presented as pooled geometric means (GM) and interquartile ranges (IQR). Results were derived from linear mixed-effects models with log-transformed outcomes and random intercepts for participants. Model estimates were exponentiated to yield ratios of geometric means and are expressed as percentage within-group changes, or between-group differences/differences in changes to facilitate interpretation.

Outcome	RYGB				OAGB				RYGB vs. OAGB	
	n	GM (IQR)	Change (95% CI)	p-value	n	GM (IQR)	Change (95% CI)	p-value	Difference [§] (95% CI)	p-value
GLP-1										
Fasting (pmol/l)										
Baseline	21	5.7 (4.0–7.5)			19	6.1 (4.9–8.0)			-7% (-27 to 19)	0.584
6 months	21	4.9 (4.2–6.1)	-13% (-28 to 4)	0.120	19	5.9 (4.3–8.5)	-4% (-21 to 17)	0.698	-10% (-31 to 17)	0.428
12 months	21	5.2 (4.5–6.9)	-9% (-24 to 10)	0.325	17	7.2 (5.6–9.4)	21% (-1 to 48)	0.061	-25% (-43 to -1)	0.041
Peak (pmol/l)[#]										
Baseline	19	15.9 (11.0–20.3)			16	17.0 (13.6–20.6)			-5% (-25 to 19)	0.629
6 months	18	146.8 (124.9–175.2)	806% (651 to 994)	<0.001	13	118.6 (107.1–154.4)	602% (465 to 773)	<0.001	29% (-3 to 72)	0.081
12 months	16	148.6 (130.2–159.7)	832% (667 to 1033)	<0.001	16	115.6 (90.9–155.0)	588% (461 to 742)	<0.001	36% (2 to 80)	0.035
Total AUC 360 min (pmol/l × min)										
Baseline	15	3518 (2836–4240)			14	3476 (2759–4203)			2% (-17 to 26)	0.824
6 months	18	14630 (12722–16803)	324% (263 to 396)	0.000	12	12388 (9950–13641)	274% (211 to 349)	0.000	14% (-11 to 44)	0.297
12 months	14	14147 (11861–16545)	305% (242 to 380)	0.000	15	11625 (8955–16556)	252% (197 to 317)	0.000	15% (-10 to 46)	0.246
Early AUC 60 min (pmol/l × min)										
Baseline	19	734 (531–928)			15	754 (625–889)			-1% (-20 to 23)	0.910
6 months	18	6043 (4978–7313)	711% (581 to 865)	0.000	13	4912 (4459–5728)	565% (441 to 717)	0.000	22% (-7 to 60)	0.146
12 months	16	6091 (5366–6602)	728% (591 to 892)	0.000	15	4927 (3945–6112)	569% (450 to 714)	0.000	24% (-5 to 62)	0.116
Secretin										
Fasting (pmol/l)										
Baseline	21	3.4 (3.0–5.0)			20	3.2 (2.8–4.2)			9% (-22 to 52)	0.618
6 months	21	3.1 (2.0–4.0)	-10% (-34 to 24)	0.530	19	3.3 (2.0–5.0)	3% (-26 to 44)	0.854	-12% (-45 to 39)	0.570
12 months	21	3.2 (3.0–5.0)	-7% (-33 to 28)	0.642	18	3.4 (3.0–4.0)	7% (-24 to 50)	0.695	-13% (-45 to 38)	0.546
Peak (pmol/l)										
Baseline	21	6.2 (5.0–7.0)			19	5.6 (4.0–7.0)			9% (-9 to 31)	0.326
6 months	19	6.0 (5.0–7.0)	-1% (-16 to 15)	0.854	14	5.2 (4.2–6.0)	-5% (-21 to 14)	0.566	4% (-18 to 32)	0.757
12 months	15	5.7 (5.0–7.0)	-8% (-23 to 9)	0.309	16	5.4 (4.0–6.2)	-5% (-20 to 13)	0.581	-4% (-25 to 22)	0.739
Total AUC 360 min (pmol/l × min)										
Baseline	21	1464 (1185–1770)			19	1384 (1211–1748)			6% (-14 to 30)	0.577
6 months	19	1396 (1219–1530)	-4% (-20 to 14)	0.631	14	1262 (960–1562)	-7% (-24 to 14)	0.469	3% (-21 to 35)	0.822
12 months	15	1453 (1282–1920)	-2% (-19 to 19)	0.851	16	1216 (1138–1423)	-12% (-27 to 7)	0.190	11% (-15 to 46)	0.426
Early AUC 60 min (pmol/l × min)										
Baseline	21	232 (180–338)			19	218 (176–304)			6% (-18 to 36)	0.648
6 months	19	208 (154–289)	-9% (-26 to 12)	0.370	14	174 (137–238)	-19% (-36 to 3)	0.084	12% (-18 to 54)	0.473
12 months	16	198 (156–234)	-15% (-32 to 6)	0.150	16	190 (142–238)	-12% (-30 to 11)	0.276	-4% (-30 to 32)	0.813

[§] At baseline, the percentage difference in baseline values. At 6 and 12 months, the percentage difference in change from baseline (ratio of fold-changes, group × time -interaction).

[#] GLP-1 peak = maximum at 15, 30, 60, or 120 min (observed peak window), chosen to reduce case loss from missing fasting/late phase time points.