

Supplementary Materials:

Table S1. The level of incretin and ghrelin hormones in patients after LSG and RYGB bariatric operations, [Me(Q1 - Q3)]

| Sample | Control group 1 (Healthy donors) | Control group 2 (Patients with obesity without T2DM) | Patients with T2DM before LSG | Patients with T2DM after LSG | Patients with T2DM before RYGB | Patients with T2DM after RYGB |
|-----------------|----------------------------------|--|---|---|--|---|
| Group | 1 | 2 | 3 | 4 | 5 | 6 |
| Ghrelin (pg/mL) | 81.14 (57.04 – 98.8) | 57.1 (41.01 – 83.5) | 203.38 (52.5 – 551.7) | 85.01 (49.68 – 158.02) p ₃₋₄ =0.043 * | 127.2 (101.08 – 347.2) | 113.6 (62.0 – 166.5) |
| GIP (pg/mL) | 39.6 (24.2 – 48.1) | 42.3 (27.2 – 54.5) | 107.64 (61.4 – 117.7) p ₁₋₃ <0.01 * | 54.53 (37.37 – 86.85) p ₁₋₄ =0.017 * | 115.3 (52.7 – 183.3) p ₁₋₅ <0.01 * | 186.6 (173.5 – 229.5) p ₁₋₆ <0.01 * p ₅₋₆ =0.028* |
| GLP-1 (pg/mL) | 13.2 (11.1 – 15.08) | 5.14 (4.54 – 15.47) p ₁₋₂ =0.043 * | 68.77 (39.27 – 79.26) p ₁₋₃ <0.01 * | 41.46 (20.58 – 149.9) p ₁₋₄ =0.01 * | 49.2 (27.8 – 68.8) p ₁₋₅ <0.01 * | 58.0 (48.6 – 63.5) |

Note: * - (p<0.05), differences at a significance level were determined using the Wilcoxon test for two dependent samples and Mann-Whitney criterion for two independent samples

Table S2. The level of superfamily TNF receptors in patients after LSG and RYGB bariatric operations, [Me(Q1 - Q3)].

| Sample | Control group 1 (Healthy donors) | Control group 2 (Patients with obesity without T2DM) | Patients with T2DM before LSG | Patients with T2DM after LSG | Patients with T2DM before RYGB | Patients with T2DM after RYGB |
|----------------|----------------------------------|--|--|---|---|---|
| Group | 1 | 2 | 3 | 4 | 5 | 6 |
| sTNFR1 (ng/mL) | 112.7 (94.8 – 159.4) | 257.4 (130.4 – 361.4) p ₁₋₂ =0.018 * | 120.05 (80.6 – 138.0) p ₂₋₃ =0.008 * | 49.2 (31.9 – 70.7) p ₁₋₄ <0.001 * p ₂₋₄ <0.001 * p ₃₋₄ =0.012 * | 105.9 (66.05 – 141.3) p ₂₋₅ =0.002 * p ₃₋₅ =0.009 * | 45.1 (30.5 – 73.2) p ₁₋₆ <0.001 * p ₂₋₆ <0.001 * p ₅₋₆ =0.007 * |
| sTNFR2 (ng/mL) | 58.3 (44.1 – 73.2) | 146.5 (87.1 – 179.3) p ₁₋₂ =0.01 * | 104.6 (48.3 – 155.3) | 43.02 (30.8 – 62.7) p ₂₋₄ =0.001 * p ₃₋₄ =0.038 * | 72.5 (66.4 – 120.4) p ₂₋₅ =0.007 * p ₃₋₅ =0.023 * | 49.8 (32.4 – 74.7) p ₂₋₆ <0.001 * p ₅₋₆ =0.026 * |

Note: * - (p<0.05), differences at a significance level were determined using the Wilcoxon test for two dependent samples and Mann-Whitney criterion for two independent samples