

Table SII. Differences in mean changes in Psoriasis Area Severity Index (PASI) and Dermatology Life Quality Index (DLQI) during follow-up between the surgery and control groups

| Parameters | Model 1 | | Model 2 | | Model 3 | |
|--------------------------|----------------------|---------|----------------------|---------|----------------------|---------|
| | Mean difference (SE) | p-value | Mean difference (SE) | p-value | Mean difference (SE) | p-value |
| ΔPASI at >0 but <1 years | 1.6 (1.2) | 0.19 | 1.4 (1.1) | 0.24 | 2.0 (1.5) | 0.19 |
| ΔPASI at ≥1 but ≤2 years | -0.5 (0.7) | 0.47 | -1.4 (1.0) | 0.20 | -1.2 (1.2) | 0.43 |
| ΔDLQI at >0 but <1 years | 0.2 (1.2) | 0.87 | -0.3 (1.5) | 0.85 | 0.2 (1.9) | 0.92 |
| ΔDLQI at ≥1 but ≤2 years | -1.4 (1.0) | 0.20 | -2.0 (1.4) | 0.16 | -2.2 (2.1) | 0.34 |

Model 1: Adjusted for baseline values of PASI and DLQI, respectively. Model 2: Additionally adjusted for baseline body mass index. Model 3: Additionally adjusted for smoking, alcohol consumption amount, alcohol consumption frequency, heredity, psoriasis subtype, baseline treatment, psoriatic arthritis. SE: standard error; ΔDLQI: change in DLQI; ΔPASI: change in PASI.

Table SIV. Differences in mean changes in Psoriasis Area Severity Index (PASI) and Dermatology Life Quality Index (DLQI) during follow-up between patients with plaque psoriasis who underwent bariatric surgery and non-operated patients with plaque psoriasis

| Parameters | Model 1 | | Model 2 | | Model 3 | |
|--------------------------|----------------------|---------|----------------------|---------|----------------------|---------|
| | Mean difference (SE) | p-value | Mean difference (SE) | p-value | Mean difference (SE) | p-value |
| ΔPASI at >0 but <1 years | 0.4 (1.6) | 0.81 | 0.3 (1.6) | 0.84 | 1.1 (2.2) | 0.61 |
| ΔPASI at ≥1 but ≤2 years | -0.8 (0.7) | 0.26 | -1.3 (1.0) | 0.23 | -1.0 (2.4) | 0.68 |
| ΔDLQI at >0 but <1 years | -0.3 (1.4) | 0.85 | -1.6 (1.5) | 0.31 | -0.4 (2.0) | 0.86 |
| ΔDLQI at ≥1 but ≤2 years | -0.3 (1.1) | 0.80 | -0.5 (1.9) | 0.81 | 0.3 (5.6) | 0.96 |

Model 1: Adjusted for baseline values of PASI and DLQI, respectively. Model 2: Additionally adjusted for baseline body mass index (BMI). Model 3: Additionally adjusted for smoking, alcohol consumption amount, alcohol consumption frequency, heredity, psoriasis subtype, baseline treatment, psoriatic arthritis. SE: standard error; ΔDLQI: change in DLQI; ΔPASI: change in PASI.

Table SV. Differences in mean changes in Psoriasis Area Severity Index (PASI) and Dermatology Life Quality Index (DLQI) during follow-up between individuals with psoriasis of all types, operated with Roux-en-Y gastric bypass (RYGB), and non-operated matched individuals; and individuals with plaque psoriasis, operated with RYGB, and non-operated matched individuals

| Parameters | Model 1 | | Model 2 | | Model 3 | |
|-------------------------------|----------------------|---------|----------------------|---------|----------------------|---------|
| | Mean difference (SE) | p-value | Mean difference (SE) | p-value | Mean difference (SE) | p-value |
| <i>Psoriasis of all types</i> | | | | | | |
| ΔPASI at >0 but <1 years | 1.4 (1.5) | 0.37 | 1.0 (1.5) | 0.49 | 2.3 (2.0) | 0.26 |
| ΔPASI at ≥1 but ≤2 years | -0.9 (0.8) | 0.29 | -1.4 (1.2) | 0.27 | -1.1 (1.8) | 0.54 |
| ΔDLQI at >0 but <1 years | 0.5 (1.4) | 0.73 | -0.3 (1.8) | 0.89 | 0.3 (2.2) | 0.89 |
| ΔDLQI at ≥1 but ≤2 years | -1.9 (1.2) | 0.14 | -2.3 (1.6) | 0.19 | -2.4 (2.3) | 0.32 |
| <i>Plaque psoriasis</i> | | | | | | |
| ΔPASI at >0 but <1 years | 0.6 (1.8) | 0.75 | 0.1 (1.9) | 0.96 | 1.4 (2.6) | 0.61 |
| ΔPASI at ≥1 but ≤2 years | -1.1 (0.8) | 0.21 | -1.8 (1.3) | 0.20 | -1.8 (2.5) | 0.50 |
| ΔDLQI at >0 but <1 years | 0.1 (1.6) | 0.96 | -1.8 (1.9) | 0.36 | -0.3 (2.2) | 0.89 |
| ΔDLQI at ≥1 but ≤2 years | -0.6 (1.3) | 0.68 | -0.7 (2.2) | 0.77 | -0.4 (2.5) | 0.89 |

Model 1: Adjusted for baseline values of PASI and DLQI, respectively. Model 2: Additionally adjusted for baseline body mass index (BMI). Model 3: Additionally adjusted for smoking, alcohol consumption amount, alcohol consumption frequency, heredity, psoriasis subtype, baseline treatment, psoriatic arthritis. SE: standard error; ΔDLQI: change in DLQI; ΔPASI: change in PASI.

Table SVI. Baseline and follow-up data on obese patients with moderate to severe psoriasis who underwent bariatric surgery and patients with matching body mass index (BMI) (±2 units) and moderate to severe psoriasis who did not have surgery

| | Surgery group (matched BMI) | | | | | Control group (matched BMI) | | | | | | |
|---------------------------------------|-----------------------------|----|---------------------------|----|---------------------------|-----------------------------|-------------------|----|---------------------------|----|---------------------------|----|
| | Baseline | n | Follow-up >0 but ≤1 years | n | Follow-up ≥1 but ≤2 years | n | Baseline | n | Follow-up >0 but ≤1 years | n | Follow-up ≥1 but ≤2 years | n |
| BMI, kg/m ² , median (IQR) | 34.4 (32.0–36.4) | 15 | 26.5 (25.0–33.7) | 11 | 26.0 (25.8–29.1) | 5 | 34.6 (32.8–38.0) | 17 | 34.6 (31.8–38.2) | 15 | 35.0 (32.8–41.0) | 11 |
| Weight, kg, median (IQR) | 100.0 (95.0–112.0) | 15 | 82.0 (73.0–100.0) | 11 | 80.0 (76.0–84.0) | 5 | 98.6 (96.0–101.0) | 17 | 100.0 (96.7–108.0) | 15 | 98.0 (91.0–105.0) | 11 |
| PASI, median (IQR) | 2.7 (1.2–7.3) | 14 | 6.0 (2.4–8.4) | 11 | 3.8 (1.2–6.4) | 5 | 4.8 (1.5–8.5) | 17 | 2.4 (0.4–6.0) | 13 | 2.2 (1.2–4.6) | 10 |
| DLQI, median (IQR) | 1.0 (0.0–14.0) | 15 | 4.0 (2.0–18.0) | 9 | 2.0 (1.0–6.0) | 4 | 6.0 (2.0–9.0) | 17 | 3.0 (1.0–13.0) | 15 | 2.0 (0.0–8.0) | 11 |
| Pso treatment, n (%) | | 15 | | 15 | | 15 | | 17 | | 17 | | 17 |
| No treatment | 3 (20.0) | | 5 (33.3) | | 11 (73.3) | | 1 (5.9) | | 2 (11.8) | | 6 (35.3) | |
| Non-biologic systemic | 5 (33.3) | | 7 (46.7) | | 3 (20.0) | | 10 (58.8) | | 10 (58.8) | | 4 (23.5) | |
| Biologic systemic | 7 (46.7) | | 3 (20.0) | | 1 (6.7) | | 6 (35.3) | | 5 (29.4) | | 7 (41.2) | |
| PsoA, n (%) | | 15 | | 11 | | 5 | | 17 | | 15 | | 11 |
| Ongoing | 7 (46.7) | | 4 (36.4) | | 1 (20.0) | | 3 (17.6) | | 3 (20.0) | | 1 (9.1) | |
| Previous | 1 (6.7) | | 1 (9.1) | | 1 (20.0) | | 0 (0) | | 1 (6.7) | | 1 (9.1) | |
| No | 6 (40.0) | | 4 (36.4) | | 2 (40.0) | | 6 (35.3) | | 5 (33.3) | | 4 (36.4) | |
| Unknown | 1 (6.7) | | 2 (18.2) | | 1 (20.0) | | 8 (47.1) | | 6 (40.0) | | 5 (45.5) | |

IQR: interquartile range; DLQI: Dermatology Life Quality Index; PASI: Psoriasis Area Severity Index; Pso: psoriasis; PsoA: psoriatic arthritis. n denotes 100% of participants in each category.