**Supplemental Material**

Anti-inflammatory Medication Exceptions and Dosages

* Aspirin (≤75mg)
* Asthma inhalers
* Carbamazepine (≤600mg)
* Doxycycline (≤100mg)
* Ibuprofen and over the counter anti-inflammatories if only used in small doses (less than <1g)
* Indomethacin (≤50mg)
* Naproxen (≤500mg)
* Spironolactone (≤25mg)
* Steroids (if they are only used on the skin occasionally)
* Topical antibiotics used for acne (such as Zineryt, Erythromycin, Clindamycin, and Metronidazole)
* Topiramate (≤25mg)

**Table S1. Weight loss equations**

|  |  |
| --- | --- |
|  | **(a)** |
|  | **(b)** |
|  | **(c)** |
|  | **(d)** |

KG, kilograms; CM, centimetres.

a The equation for weight loss percentage.

b The equation for ideal body weight for males (used to calculate excess weight loss).

c The equation for ideal body weight for females (used to calculate excess weight loss).

d The equation for excess weight loss.

**Table S2. Cytokines Below the Lowest Detectable Value by Group**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Serum at Baseline** | | | **Serum at Follow-up** | | **Adipose Tissue at Time of Surgery** | | |
| **Markers** | **LDV** | **Depressed**  (N =41) | **Controls**  (N =44) | **Depressed**  (N =19) | **Controls**  (N =33) | **LDV** | **Depressed**  (N =17) | **Controls**  (N =18) |
| IL-6 | 0.05 | 0 | 0 | 0 | 0 | 0.04 | 0 | 0 |
| IL-2 | 0.01 | 0 | 0 | 0 | 2 | 0.03 | 0 | 0 |
| IL-4 | 0.01 | 0 | 0 | 0 | 0 | 0.01 | 0 | 0 |
| TNF-α | 0.01 | 0 | 0 | 0 | 0 | 0.04 | 0 | 0 |
| IL-10 | 0.02 | 0 | 0 | 0 | 0 | 0.02 | 0 | 0 |
| IL-8 | 0.03 | 0 | 0 | 0 | 0 | 0.03 | 0 | 0 |
| IL-1β | 0.01 | 0 | 0 | 0 | 1 | 0.03 | 0 | 0 |
| IL-12p70 | 0.02 | 0 | 0 | 2 | 0 | 0.06 | 0 | 0 |
| IL-13 | 0.03 | 0 | 0 | 5 | 7 | 0.18 | 0 | 0 |
| INF-γ | 0.21 | 0 | 0 | 0 | 0 | 0.54 | 2 | 2 |

LDV, lowest detectable value; hsCRP, high sensitivity C-Reactive Protein; IL, interleukin; TNF, tumour necrosis factor; INF, interferon.

**Table S3. Childhood Trauma Questionnaire at Baseline**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Group comparisons** | | |
| ***Childhood Trauma Questionnaire (CTQ)*** | **Depressed**  (N =41) | **Controls**  (N =44) | ***P* value** |
| CTQ total score, median (range) | 41 (29 – 110) | 36.5 (28 – 91) | .19 |
| Emotional abuse score, median (range) | 8 (5 – 25) | 6 (5 – 25) | .11 |
| Physical abuse score, median (range) | 5 (5 – 25) | 5 (5 – 18) | .63 |
| Sexual abuse score, median (range) | 8 (5 – 21) | 9 (5 – 23) | .26 |
| Emotional neglect score, median (range) | 9 (5 – 25) | 8 (5 – 24) | .51 |
| Physical neglect score, median (range) | 7 (5 – 15) | 6 (5 – 15) | .83 |

CTQ, Childhood Trauma Questionnaire.

**Table S4. Correlations Between Serum and Adipose Inflammatory Markers with Depressive Symptoms**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Inflammatory Markers mg/L** | **Baseline Serum Cytokines Correlated with Baseline HAM-D**  (N =85) | | **Follow-up Serum Cytokines Correlated with Follow-up HAM-D**  (N =66) | | **Adipose Cytokines Correlated with Baseline HAM-D**  (N =35) | |
| **Spearman’s R** | ***P* value** | **Spearman’s R** | ***P* value** | **Spearman’s R** | ***P* value** |
| hsCRP | 0.16 | .14 | 0.4 | .004 | NA | NA |
| IL-6 | 0.3 | .005 | 0.45 | <.001 | 0.08 | .65 |
| IL-4 | -0.2 | .06 | 0.13 | .38 | 0.24 | .17 |
| IL-6/IL-10 ratio | 0.29 | .007 | 0.49 | < .001 | 0.12 | .50 |

HAM-D, Hamilton Depression Rating Scale 17 for depressive symptoms; hsCRP, high sensitivity C-Reactive Protein; IL, interleukin.

**Table S5. Baseline Serum Cytokines Correlated with Adipose Tissue Cytokines at Time of Surgery**

|  |  |  |
| --- | --- | --- |
| **Cytokines** | **Sample-wide correlations** (N =35) | |
| **Spearman’s R** | ***P* value** |
| IL-6 | -0.09 | .92 |
| IL-2 | 0.01 | .98 |
| IL-4 | -0.33 | .06 |
| TNF-α | -0.35 | .05 |
| IL-10 | -0.01 | .96 |
| IL-8 | -0.14 | .42 |
| IL-1β | 0.2 | .26 |
| IL-12p70 | -0.17 | .35 |
| IL-13 | -0.07 | .68 |
| INF-γ | 0.19 | .29 |
| IL-6/IL-10 ratio | -0.03 | .85 |

IL, interleukin; TNF, tumour necrosis factor; INF, interferon.

**Table S6. Correlations between Baseline Variables with Weight Loss Percentage and Depression Severity at 6-Month Follow-up**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Baseline variables | Weight Loss Percentage at 6-Month Follow-up | | HAM-D Severity at 6-Month Follow-up | |
| **Spearman’s R** | ***P* value** | **Spearman’s R** | ***P* value** |
| CTQ – Emotional abuse | 0.133 | .30 | 0.321 | .01 |
| CTQ – Physical abuse | 0.216 | .09 | 0.124 | .33 |
| CTQ – Sexual abuse | -0.215 | .09 | -0.015 | .91 |
| CTQ – Emotional neglect | 0.005 | .97 | 0.156 | .22 |
| CTQ – Physical neglect | -0.187 | .14 | 0.165 | .20 |
| hsCRP | -0.3 | .01 | 0.279 | .02 |
| IL-6 | -0.213 | .09 | 0.328 | .008 |
| IL-4 | 0.129 | .30 | 0.01 | .94 |
| IL-6/IL-10 ratio | -0.086 | .40 | 0.26 | .04 |

HAM-D, Hamilton Depression Rating Scale 17 for depressive symptoms; CTQ, Childhood Trauma Questionnaire; hsCRP= high sensitivity C-reactive protein; IL, interleukin.