**S Table2. Pairwise comparison within group-Non Parametric Wilcoxon pairwise**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **PARAMETER** | **GROUP B (Controls)** | | | | |
|  | **MEAN\_BL** | **STDEV\_BL** | **Wilcox paired** | **MEAN\_FU** | **SD\_FU** |
| **ENERGY** |  | | | | |
| Total Grams | 2174.14 | 773.93 | 5.95E-01 | 2239.28 | 725.26 |
| Energy (kcal) | 2117.20 | 411.19 | 9.22E-01 | 2130.26 | 421.26 |
| **BODY COMPOSITION and ADIPOKINES** | | | | | |
| wt (Kg) | 91.78 | 13.11 | 1.71E-01 | 92.87 | 14.03 |
| BMI | 30.27 | 2.55 | 1.78E-01 | 30.63 | 2.95 |
| waist (cm) | 103.39 | 9.56 | 2.95E-01 | 104.54 | 9.38 |
| TOT fat (g) | 35074.55 | 6660.27 | 1.14E-01 | 36228.50 | 8124.93 |
| TRUNK fat (g) | 19250.40 | 4425.63 | 2.94E-01 | 19795.80 | 5271.94 |
| TOT Lean (g) | 52829.90 | 10313.55 | 4.98E-01 | 53043.30 | 10265.03 |
| Adiponectin, HMW (ng/mL) | 3037.50 | 1667.61 | 4.33E-01 | 3080.50 | 1743.71 |
| Leptin (ug/L) | 31.65 | 16.24 | 6.48E-01 | 33.22 | 16.20 |
| **INFLAMMATORY MARKERS** | | | | | |
| hsCRP (mg/L) | 2.09 | 1.40 | 6.22E-01 | 2.37 | 2.52 |
| IL-6 (pg/mL) | 0.50 | 0.37 | 1.07E-01 | 0.36 | 0.27 |
| TNF-a (pg/mL) | 1.86 | 1.07 | 8.90E-01 | 2.25 | 1.85 |
| IL-1b (pg/mL) | 0.01 | 0.01 | 6.66E-01 | 0.02 | 0.01 |
| IL-17 (pg/mL) | 0.41 | 0.30 | 2.77E-01 | 0.35 | 0.32 |
| MCP-1 (pg/mL) | 322.76 | 93.65 | 1.30E-02 | 288.68 | 91.96 |
| INF-g (pg/mL) | 2.13 | 1.23 | 1.29E-03 | 1.31 | 1.14 |
| IL-10 (pg/mL) | 0.15 | 0.07 | 4.09E-01 | 0.14 | 0.08 |
| **GLUCOSE METABOLISM and INSULIN SENSITIVITY MARKERS** | | | | | |
| Glucose | 91.10 | 11.06 | 9.70E-01 | 91.20 | 8.04 |
| YSI (0) | 95.50 | 9.47 | 5.63E-01 | 96.82 | 7.46 |
| YSI (30) | 138.40 | 20.46 | 7.65E-01 | 136.57 | 18.23 |
| YSI (60) | 127.19 | 31.73 | 1.21E-01 | 135.88 | 29.96 |
| YSI (90) | 117.56 | 33.81 | 2.05E-01 | 124.85 | 35.29 |
| YSI (120) | 108.27 | 36.32 | 1.91E-01 | 114.57 | 34.32 |
| gAUC | 14550.83 | 2705.83 | 2.55E-01 | 15089.70 | 2562.66 |
| Insulin 0 uU/mL | 11.30 | 6.06 | 8.37E-01 | 13.06 | 10.88 |
| Insulin 30 uU/mL | 89.96 | 38.06 | 7.47E-01 | 92.02 | 40.76 |
| Insulin 60 uU/mL | 83.84 | 44.37 | 2.31E-01 | 98.04 | 57.92 |
| Insulin 90 uU/mL | 69.60 | 41.46 | 1.14E-01 | 93.91 | 85.19 |
| Insulin 120 uU/mL | 58.33 | 44.35 | 7.51E-01 | 70.71 | 93.85 |
| insulin AUC | 8346.08 | 3595.12 | 6.71E-02 | 9931.18 | 6450.28 |
| HOMA index | 2.70 | 1.49 | 8.41E-01 | 3.20 | 2.77 |
| Matsuda Index (ISI) | 4.09 | 1.68 | 4.65E-01 | 4.08 | 2.54 |
| Insulinogenic Index 30 (IGI) | 2.01 | 1.21 | 1.34E-01 | 2.62 | 2.01 |
| Disposition Index (ISI x IGI) | 7.81 | 5.65 | 3.12E-01 | 9.10 | 6.82 |
| Oral disposition index | 0.22 | 0.18 | 1.82E-01 | 0.28 | 0.21 |

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| --- | --- | --- | --- | --- | --- |
| **PARAMETER** | **GROUP A (6 months IF)** | | | | |
|  | **MEAN\_BL** | **STDEV\_BL** | **Wilcox paired** | **MEAN\_FU** | **SD\_FU** |
| **ENERGY** |  | | | | |
| Total Grams | 2027.48 | 618.93 | 9.58E-02 | 1861.09 | 456.12 |
| Energy (kcal) | 2222.18 | 535.79 | 6.68E-05 | 1719.27 | 362.14 |
| BODY COMPOSITION and ADIPOKINES | | | | | |
| wt (Kg) | 85.27 | 11.22 | 2.86E-06 | 79.36 | 11.46 |
| BMI | 29.04 | 2.78 | 2.86E-06 | 26.98 | 2.58 |
| waist (cm) | 101.70 | 9.35 | 7.39E-05 | 93.28 | 9.69 |
| TOT fat (g) | 32248.19 | 6984.95 | 1.91E-06 | 27484.86 | 5940.72 |
| TRUNK fat (g) | 17186.76 | 3881.92 | 1.91E-06 | 14425.90 | 3678.63 |
| TOT Lean (g) | 50058.52 | 10118.00 | 4.26E-04 | 48967.00 | 10467.97 |
| Adiponectin, HMW (ng/mL) | 4227.67 | 3096.49 | 2.86E-03 | 4868.43 | 2963.97 |
| Leptin (ug/L) | 33.34 | 21.10 | 2.86E-03 | 26.19 | 13.91 |
| INFLAMMATORY MARKERS | | | | | |
| hsCRP (mg/L) | 2.86 | 3.13 | 2.80E-03 | 1.87 | 1.96 |
| IL-6 (pg/mL) | 0.66 | 0.65 | 2.97E-02 | 0.43 | 0.33 |
| TNF-a (pg/mL) | 2.31 | 1.31 | 5.39E-01 | 2.99 | 3.03 |
| IL-1b (pg/mL) | 0.05 | 0.12 | 8.12E-01 | 0.02 | 0.02 |
| IL-17 (pg/mL) | 0.46 | 0.30 | 8.00E-02 | 0.35 | 0.23 |
| MCP-1 (pg/mL) | 303.89 | 83.79 | 7.01E-02 | 281.36 | 76.98 |
| INF-g (pg/mL) | 1.82 | 1.02 | 1.33E-01 | 2.39 | 5.64 |
| IL-10 (pg/mL) | 0.18 | 0.10 | 9.48E-01 | 0.17 | 0.07 |
| GLUCOSE METABOLISM and INSULIN SENSITIVITY MARKERS | | | | | |
| Glucose | 95.52 | 10.40 | 2.58E-01 | 93.76 | 11.05 |
| YSI (0) | 99.62 | 10.79 | 5.20E-01 | 97.97 | 11.60 |
| YSI (30) | 156.76 | 23.05 | 6.39E-01 | 152.95 | 17.02 |
| YSI (60) | 167.83 | 47.59 | 3.48E-01 | 161.33 | 34.43 |
| YSI (90) | 154.26 | 51.47 | 1.44E-01 | 142.63 | 37.05 |
| YSI (120) | 131.08 | 52.59 | 8.35E-01 | 127.33 | 27.92 |
| gAUC | 17826.21 | 4299.23 | 2.88E-01 | 17086.93 | 2837.95 |
| Insulin 0 uU/mL | 12.61 | 6.39 | 5.95E-02 | 11.75 | 9.91 |
| Insulin 30 uU/mL | 80.26 | 50.08 | 3.51E-02 | 66.19 | 40.82 |
| Insulin 60 uU/mL | 97.73 | 68.40 | 3.38E-01 | 84.95 | 66.78 |
| Insulin 90 uU/mL | 97.80 | 75.50 | 9.58E-02 | 80.90 | 52.86 |
| Insulin 120 uU/mL | 82.00 | 76.07 | 3.38E-01 | 77.26 | 71.51 |
| insulin AUC | 9692.64 | 6481.76 | 7.01E-02 | 8296.29 | 5446.99 |
| HOMA index | 3.14 | 1.72 | 4.60E-02 | 3.00 | 3.24 |
| Matsuda Index (ISI) | 3.52 | 2.17 | 1.37E-01 | 4.00 | 1.80 |
| Insulinogenic Index 30 (IGI) | 1.26 | 0.87 | 8.88E-02 | 1.04 | 0.73 |
| Disposition Index (ISI x IGI) | 4.51 | 5.83 | 8.38E-01 | 3.90 | 3.08 |
| Oral disposition index | 0.13 | 0.15 | 9.58E-01 | 0.12 | 0.09 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **GROUP D (control\_6 months IF)** | | | | | **GROUP A+D (IF\_combined)** | | | | |
|  | **MEAN\_BL** | **STDEV\_BL** | **Wilcox paired** | **MEAN\_FU** | **SD\_FU** | **MEAN\_BL** | **STDEV\_BL** | **Wilcox paired** | **MEAN\_FU** | **SD\_FU** |
| **ENERGY** |  |  |  |  |  |  |  |  |  |  |
| Total Grams | 2239.28 | 725.26 | 6.79E-01 | 2133.95 | 782.71 | 2128.09 | 671.34 | 1.46E-01 | 1990.70 | 639.13 |
| Energy (kcal) | 2130.26 | 421.26 | 4.20E-04 | 1640.06 | 481.22 | 2178.52 | 480.92 | 3.48E-08 | 1681.65 | 419.21 |
| **BODY COMPOSITION and ADIPOKINES** | | | | | | | | | | |
| wt (Kg) | 92.87 | 14.03 | 1.43E-04 | 85.84 | 12.41 | 88.98 | 13.08 | 4.31E-08 | 82.44 | 12.21 |
| BMI | 30.63 | 2.95 | 3.81E-06 | 28.02 | 2.96 | 29.82 | 2.94 | 5.46E-12 | 27.47 | 2.78 |
| waist (cm) | 104.54 | 9.38 | 3.14E-04 | 97.33 | 9.99 | 103.09 | 9.36 | 1.09E-07 | 95.21 | 9.92 |
| TOT fat (g) | 36228.50 | 8124.93 | 3.81E-06 | 30243.74 | 7883.02 | 34189.80 | 7733.63 | 3.64E-12 | 28795.33 | 6980.42 |
| TRUNK fat (g) | 19795.80 | 5271.94 | 3.81E-06 | 16028.84 | 4760.82 | 18459.46 | 4741.28 | 3.64E-12 | 15187.30 | 4249.45 |
| TOT Lean (g) | 53043.30 | 10265.03 | 2.02E-03 | 52536.63 | 9721.80 | 51514.51 | 10174.46 | 2.67E-06 | 50662.58 | 10152.57 |
| Adiponectin, HMW (ng/mL) | 3080.50 | 1743.71 | 7.28E-02 | 3552.21 | 1768.10 | 3668.07 | 2564.25 | 6.38E-04 | 4243.23 | 2528.07 |
| Leptin (ug/L) | 33.22 | 16.20 | 3.81E-06 | 23.43 | 12.79 | 33.28 | 18.64 | 6.46E-08 | 24.88 | 13.29 |
| **INFLAMMATORY MARKERS** | | | | | | | | | | |
| hsCRP (mg/L) | 2.37 | 2.52 | 6.18E-03 | 3.56 | 9.56 | 2.62 | 2.82 | 6.01E-05 | 2.68 | 6.70 |
| IL-6 (pg/mL) | 0.36 | 0.27 | 1.15E-02 | 0.26 | 0.17 | 0.51 | 0.51 | 1.18E-03 | 0.35 | 0.28 |
| TNF-a (pg/mL) | 2.25 | 1.85 | 7.63E-05 | 5.13 | 2.19 | 2.28 | 1.56 | 2.04E-03 | 3.98 | 2.86 |
| IL-1b (pg/mL) | 0.02 | 0.01 | 3.45E-01 | 0.01 | 0.00 | 0.04 | 0.10 | 5.29E-01 | 0.02 | 0.02 |
| IL-17 (pg/mL) | 0.35 | 0.32 | 9.09E-02 | 0.60 | 1.04 | 0.41 | 0.31 | 6.58E-01 | 0.47 | 0.74 |
| MCP-1 (pg/mL) | 288.68 | 91.96 | 3.32E-01 | 300.94 | 95.11 | 296.47 | 87.10 | 5.19E-01 | 290.66 | 85.51 |
| INF-g (pg/mL) | 1.31 | 1.14 | 3.25E-01 | 1.24 | 1.71 | 1.56 | 1.10 | 5.75E-02 | 1.86 | 4.29 |
| IL-10 (pg/mL) | 0.14 | 0.08 | 1.28E-02 | 0.22 | 0.24 | 0.16 | 0.09 | 6.27E-02 | 0.19 | 0.17 |
| **GLUCOSE METABOLISM and INSULIN SENSITIVITY MARKERS** | | | | | | | | | | |
| Glucose | 91.20 | 8.04 | 4.93E-01 | 89.63 | 9.48 | 93.41 | 9.46 | 1.72E-01 | 91.80 | 10.42 |
| YSI (0) | 96.82 | 7.46 | 2.25E-01 | 93.65 | 9.01 | 98.26 | 9.31 | 1.83E-01 | 95.92 | 10.55 |
| YSI (30) | 136.57 | 18.23 | 3.98E-01 | 133.37 | 19.37 | 146.91 | 22.98 | 3.43E-01 | 143.65 | 20.49 |
| YSI (60) | 135.88 | 29.96 | 9.36E-01 | 134.62 | 27.66 | 152.24 | 42.67 | 5.19E-01 | 148.64 | 33.82 |
| YSI (90) | 124.85 | 35.29 | 4.41E-01 | 119.56 | 28.86 | 139.91 | 46.23 | 1.13E-01 | 131.67 | 34.99 |
| YSI (120) | 114.57 | 34.32 | 8.25E-01 | 112.33 | 30.46 | 123.02 | 44.86 | 9.95E-01 | 120.20 | 29.76 |
| gAUC | 15089.70 | 2562.66 | 6.79E-01 | 14715.87 | 2266.58 | 16491.33 | 3778.74 | 2.27E-01 | 15960.68 | 2817.67 |
| Insulin 0 uU/mL | 13.06 | 10.88 | 5.46E-02 | 10.66 | 7.11 | 12.83 | 8.76 | 1.07E-02 | 11.23 | 8.61 |
| Insulin 30 uU/mL | 92.02 | 40.76 | 2.08E-02 | 70.11 | 41.97 | 85.84 | 45.70 | 1.64E-03 | 68.05 | 40.88 |
| Insulin 60 uU/mL | 98.04 | 57.92 | 1.69E-01 | 88.32 | 40.02 | 97.88 | 62.72 | 1.32E-01 | 86.55 | 55.04 |
| Insulin 90 uU/mL | 93.91 | 85.19 | 4.01E-02 | 65.23 | 39.57 | 95.90 | 79.38 | 1.22E-02 | 73.46 | 47.10 |
| Insulin 120 uU/mL | 70.71 | 93.85 | 9.84E-01 | 61.41 | 49.72 | 76.49 | 84.32 | 6.14E-01 | 69.73 | 61.87 |
| insulin AUC | 9931.18 | 6450.28 | 4.32E-02 | 7790.68 | 3744.07 | 9805.95 | 6384.56 | 7.49E-03 | 8056.13 | 4663.74 |
| HOMA index | 3.20 | 2.77 | 4.46E-02 | 2.45 | 1.56 | 3.17 | 2.27 | 7.33E-03 | 2.74 | 2.56 |
| Matsuda Index (ISI) | 4.08 | 2.54 | 2.46E-01 | 5.60 | 5.71 | 3.78 | 2.34 | 5.81E-02 | 4.76 | 4.17 |
| Insulinogenic Index 30 (IGI) | 2.62 | 2.01 | 3.36E-03 | 1.70 | 1.18 | 1.90 | 1.65 | 8.41E-04 | 1.35 | 1.01 |
| Disposition Index (ISI x IGI) | 9.10 | 6.82 | 4.68E-01 | 8.87 | 10.97 | 6.69 | 6.65 | 7.35E-01 | 6.26 | 8.17 |
| Oral disposition index | 0.28 | 0.21 | 1.19E-01 | 0.62 | 1.95 | 0.20 | 0.20 | 2.64E-01 | 0.36 | 1.35 |