**Tables:**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameters | Type 2 diabetic patients with obesity | | | | | | | | | p |
| Total | | | Group 1 | | | Group 2 | | |
| Baseline | Metformin  (12 W) | Metformin +  SGLT2 inhibitors  (24 W) | Baseline | Metformin  (12 W) | Metformin + Dapagliflozin (24 W) | Baseline | Metformin  (12 W) | Metformin + Empagliflozin (24 W) |
| Weight (kg) | 91.07±8.98 | 90.83±8.85a | 88.81±8.56a | 88.39±6.88 | 88.15±6.84b | 86.34±6.97b | 93.41±10.11 | 93.18±9.92 | 90.98±9.42b |  |
| Change | -0.23 (-0.39, -0.08), -2.00 (-2.39, -1.61) | | | -0.24 (-0.40, -0.08), -1.81 (-2.19, -1.43) | | | -0.23 (-0.51, -0.04), -2.19 (-2.88, -1.50) | | | 0.130 |
| BMI (kg/m2) | 32.47±1.14 | 32.40±1.28a | 31.68±1.28a | 32.54±1.13 | 32.47±1.14b | 31.79±1.18b | 32.41±1.42 | 32.33±1.42 | 31.58±1.38b |  |
| Change | -0.08 (-0.13, -0.02), -0.71 (-0.85, -0.58) | | | -0.07 (-0.13, -0.01), -0.68 (-0.84, -0.52) | | | -0.08 (-0.17, 0.01), -0.75 (-0.97, -0.53) | | | 0.736 |
| WC (cm) | 100.57±4.30 | 100.32±4.26a | 97.41±4.22a | 99.53±4.47 | 99.22±4.43b | 96.36±4.36b | 101.48±4.07 | 101.28±4.00b | 98.33±4.00b |  |
| Change | -0.25 (-0.34, -0.16), -2.91 (-3.19, -2.63) | | | -0.30 (-0.43, -0.17), -2.87 (-3.31, -2.43) | | | -0.20 (-0.34, -0.06), -2.95 (-3.37, -2.53) | | | 0.205 |
| Systolic BP (mmHg) | 122.33±8.17 | 121.17±6.65 | 115.83±5.10a | 126.43±7.70 | 123.93±6.56 | 118.57±4.57b | 118.75±6.95 | 118.75±5.92 | 113.44±4.37b |  |
| Change | -1.25 (-2.98, 0.48), -5.34 (-7.09, -3.58) | | | -2.5 (-4.89, -0.11), -5.36 (-8.04, -2.68) | | | 0.00 (-2.75, 2.75), -5.31 (-7.91, -2.71) | | | 0.007c |
| Diastolic BP (mmHg) | 77.00±5.35 | 77.83±5.36 | 74.17±3.96a | 78.57±5.34 | 79.29±4.75 | 75.00±3.92b | 75.63±5.12 | 76.56±5.69 | 73.44±3.97b |  |
| Change | 0.83 (-0.27, 1.92), -3.71 (-5.44, -1.97) | | | 0.70 (-1.25, 2.68), -4.29 (-7.11, -1.46) | | | 0.94 (-0.42, 2.30), -3.13 (-5.55, -0.71) | | | 0.153 |
| FPG (mmol/L) | 14.19±0.73 | 13.58±0.87a | 11.34±0.70a | 14.21±0.63 | 13.67±0.68b | 11.10±0.67b | 14.18±0.82 | 13.49±1.02b | 11.56±0.68b |  |
| Change | -0.61 (-0.88, -0.34), -2.25 (-2.57, -1.93) | | | -0.54 (-0.97, -0.12), -2.57 (-3.15, -1.99) | | | -0.68 (-1.07, -0.30), -1.94 (-2.33, -1.54) | | | 0.745 |
| PPBG (mmol/L) | 18.82±0.98 | 18.24±1.13a | 15.31±1.51a | 19.01±0.99 | 18.36±1.26b | 14.64±1.68b | 18.66±0.98 | 18.13±1.02 | 15.89±1.09b |  |
| Change | -0.59 (-0.97, -0.21), -2.98 (-3.56, -2.40) | | | -0.64 (-1.16, -0.13), -3.72 (-5.01, -2.44) | | | -0.53 (-1.14, 0.07), -2.24 (-2.59, -1.88) | | | 0.528 |
| HbA1C (%(mmol/mol)) | 9.41±0.37  (79.37±4.12) | 9.28±0.38a  (77.97±4.06) | 8.06±0.33a  (64.60±3.40) | 9.44±0.38  (79.57±4.33) | 9.37±0.36  (78.93±4.16) | 8.05±0.25b  (64.43±2.68) | 9.39±0.37  (79.19±4.19) | 9.21±0.38b  (77.13±3.91) | 8.08±0.39b  (64.75±4.12) |  |
| Change | -0.12 (-0.18, -0.06), -1.23 (-1.33, -1.12)  -1.35 (-2.08, -0.62), -13.44 (-14.62, -12.26) | | | -0.06 (-0.15, -0.02), -1.32 (-1.54, -1.11)  -0.64 (-1.49, 0.20), -14.50 (-16.85, -12.15) | | | -0.18 (-0.29, -0.07), -1.13 (-1.24, -1.02)  -2.06 (-3.30, -0.82), -12.38 (-13.55, -11.19) | | | 0.613 |
| TC (mmol/L) | 5.43±0.28 | 5.34±0.28a | 4.99±0.244a | 5,43±0.22 | 5.34±0.26b | 5.01±0.22b | 5.44±0.32 | 5.34±0.30b | 4.99±0.27b |  |
| Change | -0.10 (-0.13, -0.06), -0.34 (-0.41, -0.27) | | | -0.09 (-0.14, -0.03), -0.33 (-0.44, -0.22) | | | -0.10 (-0.14, -0.06), -0.35 (-0.44, -0.26) | | | 0.975 |
| TG (mmol/L) | 2.26±0.15 | 2.21±0.14a | 2.03±0.13a | 2.21±0.15 | 2.16±0.13b | 2.00±0.10b | 2.30±0.15 | 2.26±0.14b | 2.06±0.15b |  |
| Change | -0.05 (-0.07, -0.02), -0.18 (-0.20, -0.15) | | | -0.05 (-0.09, -0.01), -0.16 (-0.21, -0.12) | | | -0.04 (-0.07, -0.01), -0.19 (-0.22, -0.16) | | | 0.112 |
| HDL-C (mmol/L) | 1.16±0.08 | 1.20±0.07a | 1.30±0.09a | 1.15±0.08 | 1.19±0.06 | 1.33±0.10b | 1.18±0.09 | 1.21±0.09 | 1.28±0.09b |  |
| Change | 0.03 (0.01, 0.05), 0.11 (0.08, 0.14) | | | 0.04 (0.00, 0.07), 0.14 (0.09, 0.19) | | | 0.03 (0.00, 0.06), 0.07 (0.03, 0.11) | | | 0.921 |
| LDL-C (mmol/L) | 3.24±0.28 | 3.12±0.27a | 2.76±0.25a | 3.26±0.22 | 3.15±0.23b | 2.79±0.23b | 3.22±0.32 | 3.09±0.30b | 2.74±0.27b |  |
| Change | -0.12 (-0.15, -0.08), -0.36 (-0.42, -0.29) | | | -0.11 (-0.15, -0.06), -0.36 (-0.48, -0.25) | | | -0.21 (-0.33, -0.09), -0.54 (-0.72, -0.36) | | | 0.631 |
| Creatinine (μmol/L) | 97.03±17.69 | 98.97±19.17 | 72.27±12.19a | 96.07±17.20 | 93.36±13.66 | 70.29±10.13b | 97.88±18.63 | 103.88±22.21 | 74.00±13.83b |  |
| Change | 1.64 (-4.59, -7.87), -26.47 (-32.24, -20.70) | | | -2.71 (-9.08, 3.65), -23.07 (-30.94, -15.20) | | | 6.00 (-5.03, 17.03), -29.88 (-39.06, -20.69) | | | 0.333 |
| Albumin (g/L) | 45.10±3.35 | 44.93±3.33 | 45.07±3.26 | 45.29±3.58 | 45.21±3.40 | 45.50±3.57 | 44.94±3.24 | 44.69±3.36 | 44.69±3.03 |  |
| Change | -0.16 (-0.44, 0.12), 0.14 (-0.15, 0.43) | | | -0.07 (-0.42, -0.28), 0.29 (-0.16, 0.73) | | | -0.25 (-0.71, -0.21), 0.00 (-0.43, 0.43) | | | 0.648 |
| AST (IU/L) | 30.77±6.83 | 31.97±7.27 | 31.43±7.27 | 30.93±7.44 | 31.86±7.66 | 31.79±7.87 | 30.63±6.50 | 32.06±7.17 | 31.13±6.95 |  |
| Change | 1.18 (-0.15, 2.52), -0.50 (-2.35, 1.34) | | | 0.93 (-1.25, 3.11), -0.07 (-2.54, -2.40) | | | 1.44 (-0.42, 3.29), -0.94 (-3.90, 2.03) | | | 0.921 |
| ALT (IU/L) | 24.90±5.91 | 26.07±5.94 | 25.07±5.54 | 26.00±6.16 | 26.86±6.62 | 25.93±5.72 | 23.94±5.70 | 25.38±5.40 | 24.31±5.45 |  |
| Change | 1.15 (-0.35, 2.65), -1.0 (-3.00, 1.00) | | | 0.86 (-1.13, 2.85), -0.93 (-4.17, 2.31) | | | 1.43 (-0.98, 3.85), -1.06 (-3.89, -1.77) | | | 0.388 |
| Data are means ± SD, or 95% CI. p < 0.05 was considered significant.  SGLT2: Sodium glucose cotransporter 2, BMI: Body mass index, WC: Waist circumference, BP: Blood pressure, FPG: Fasting plasma glucose, PPBG: Postprandial blood glucose, HbA1C: Hemoglobin A1C, TC: Total cholesterol, TG: Triglycerides, HDL-C: High-density lipoprotein cholesterol, LDL-C: Low-density lipoprotein cholesterol, AST: Aspartate aminotransferase, ALT: Alanine aminotransferase.  a p < 0.05 (comparison between before treatment and after treatment in all subjects)  b p < 0.05 (comparison between before treatment and after treatment in each group)  c p < 0.05 (comparison between dapagliflozin and empagliflozin group) | | | | | | | | | | |

Table 3: Change from baseline to treatment with metformin, before and after add-on therapy of SGLT2 inhibitors on clinical and biochemical variables in obese type 2 diabetes.