|  | normal | | Slightly Elevated | | Highly Elevated | | Overall | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | control (N=9) | exercise (N=7) | control (N=7) | exercise (N=3) | control (N=10) | exercise (N=2) | control (N=26) | exercise (N=12) |
| **Sex** |  |  |  |  |  |  |  |  |
| Female | 8 (88.9%) | 6 (85.7%) | 7 (100%) | 2 (66.7%) | 9 (90.0%) | 1 (50.0%) | 24 (92.3%) | 9 (75.0%) |
| Male | 1 (11.1%) | 1 (14.3%) | 0 (0%) | 1 (33.3%) | 1 (10.0%) | 1 (50.0%) | 2 (7.7%) | 3 (25.0%) |
| **Ethnicity** |  |  |  |  |  |  |  |  |
| Caucasian | 8 (88.9%) | 7 (100%) | 6 (85.7%) | 2 (66.7%) | 7 (70.0%) | 2 (100%) | 21 (80.8%) | 11 (91.7%) |
| Middle-Eastern | 1 (11.1%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 1 (3.8%) | 0 (0%) |
| Latin America | 0 (0%) | 0 (0%) | 1 (14.3%) | 0 (0%) | 0 (0%) | 0 (0%) | 1 (3.8%) | 0 (0%) |
| African | 0 (0%) | 0 (0%) | 0 (0%) | 1 (33.3%) | 0 (0%) | 0 (0%) | 0 (0%) | 1 (8.3%) |
| Asian | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 3 (30.0%) | 0 (0%) | 3 (11.5%) | 0 (0%) |
| **Age (Years)** | 3260000 [2610000, 3610000] | 3070000 [2510000, 4190000] | 3260000 [3090000, 3730000] | 4520000 [4310000, 4880000] | 2700000 [2140000, 3590000] | 3960000 [3570000, 4360000] | 3090000 [2580000, 3630000] | 3960000 [3000000, 4590000] |
| **Weight** | 69.1 [62.2, 86.7] | 62.1 [58.0, 68.7] | 58.8 [54.1, 80.2] | 89.7 [71.0, 94.6] | 62.0 [58.7, 70.9] | 80.8 [76.4, 85.1] | 62.7 [59.0, 78.7] | 67.5 [58.2, 89.5] |
| **Waist/Height Ratio at baseline** | 0.441 [0.429, 0.550] | 0.441 [0.399, 0.477] | 0.451 [0.428, 0.505] | 0.495 [0.461, 0.532] | 0.457 [0.420, 0.503] | 0.496 [0.482, 0.510] | 0.446 [0.424, 0.508] | 0.460 [0.422, 0.508] |
| **Body Mass Index (kg/m²)** | 22.7 [22.1, 29.9] | 20.8 [19.6, 24.2] | 23.3 [20.3, 27.5] | 25.9 [23.9, 29.0] | 23.4 [21.5, 24.9] | 25.4 [24.8, 25.9] | 23.0 [21.8, 26.8] | 24.0 [20.6, 26.0] |
| **SLE Duration (Months)** | 8850000 [4360000, 11600000] | 9140000 [7220000, 18200000] | 4290000 [355000, 13800000] | 20400000 [11900000, 22700000] | 9530000 [5520000, 17700000] | 2970000 [2470000, 3460000] | 8710000 [3900000, 15900000] | 8780000 [4270000, 21400000] |
| **SLEDAI** | 4.00 [2.00, 6.00] | 6.00 [4.00, 6.00] | 8.00 [8.00, 9.50] | 10.0 [5.50, 10.0] | 4.00 [3.00, 8.00] | 8.00 [8.00, 8.00] | 6.00 [2.75, 8.00] | 6.00 [4.00, 8.50] |
| **SLICC-Eular/ACR-2019** | 30.0 [18.0, 34.0] | 17.0 [16.0, 24.5] | 26.0 [21.5, 32.5] | 26.0 [23.0, 31.5] | 34.0 [24.5, 37.5] | 32.0 [30.0, 34.0] | 30.0 [20.5, 35.0] | 24.0 [17.0, 29.5] |
| **Aerobic Capacity Test 1** | 30.3 (4.58) | 32.0 (11.8) | 26.1 (5.53) | 28.2 (8.52) | 31.1 (5.44) | 29.1 (2.10) | 29.4 (5.38) | 30.6 (9.61) |
| **HRmax at Test 1** | 178 [173, 191] | 177 [161, 179] | 185 [169, 191] | 159 [155, 163] | 184 [178, 187] | 172 [165, 179] | 179 [172, 191] | 170 [156, 179] |
| **Borg-Scale Test 1** | 17.5 [17.0, 19.0] | 18.0 [16.5, 18.5] | 17.0 [17.0, 18.5] | 18.0 [16.5, 18.0] | 17.0 [17.0, 18.0] | 17.5 [17.3, 17.8] | 17.0 [17.0, 19.0] | 18.0 [16.8, 18.0] |
| **Maximal Wattage Test 1 (Watt)** | 186 [167, 211] | 181 [119, 223] | 166 [134, 188] | 146 [123, 222] | 187 [171, 259] | 214 [189, 238] | 185 [153, 197] | 173 [124, 225] |
| **Aerobic Capacity Test 2** | 29.8 (5.06) | 27.7 (9.00) | 26.1 (6.01) | 25.4 (3.91) | 27.0 (4.70) | 30.3 (5.99) | 27.8 (5.11) | 27.6 (7.08) |
| **HRmax at Test 2** | 179 [173, 191] | 176 [156, 181] | 174 [171, 177] | 159 [153, 164] | 181 [158, 183] | 168 [162, 174] | 178 [172, 185] | 168 [154, 180] |
| **Borg-Scale Test 2** | 18.5 [17.8, 19.0] | 18.0 [17.5, 18.5] | 18.5 [18.0, 19.8] | 18.0 [16.5, 18.0] | 18.0 [17.0, 18.8] | 17.0 [16.5, 17.5] | 18.0 [17.0, 19.0] | 18.0 [16.8, 18.0] |
| **Maximal Wattage Test 2 (Watt)** | 178 [173, 214] | 180 [123, 225] | 180 [129, 185] | 163 [136, 207] | 189 [146, 245] | 210 [191, 229] | 181 [160, 200] | 176 [127, 229] |
| **FSS** | 5.22 [4.22, 5.56] | 4.44 [3.89, 5.22] | 5.33 [4.28, 5.72] | 6.00 [5.67, 6.39] | 4.22 [3.19, 5.69] | 5.78 [5.44, 6.11] | 5.11 [3.67, 5.72] | 5.22 [4.31, 6.08] |
| **VAS Fatigue - Patient (1-100)** | 60.0 [30.0, 70.0] | 30.0 [20.0, 40.0] | 35.0 [30.0, 65.0] | 33.0 [31.5, 36.5] | 50.0 [24.5, 70.0] | 20.0 [20.0, 20.0] | 55.0 [30.0, 70.0] | 30.0 [20.0, 40.0] |
| **VAS overall disease activity - patient (1-10)** | 2.00 [2.00, 4.00] | 2.00 [2.00, 2.50] | 5.00 [4.25, 5.00] | 7.00 [5.00, 8.00] | 3.00 [1.00, 5.00] | 5.50 [4.25, 6.75] | 4.00 [2.00, 5.00] | 3.00 [2.00, 5.50] |
| **VAS overall disease activity - physician (1-100)** | 15.0 [9.00, 19.1] | 7.30 [3.57, 25.3] | 26.2 [19.4, 32.1] | 26.2 [17.9, 27.0] | 10.3 [7.42, 23.8] | 34.8 [34.5, 35.2] | 15.8 [8.09, 26.2] | 21.7 [6.67, 33.5] |
| **Daily time in MVPA (Minutes)** | 34.1 (25.4) | 20.8 (12.4) | 29.9 (25.6) | 15.5 (17.1) | 40.3 (24.7) | 38.9 (20.2) | 35.6 (24.4) | 22.5 (15.4) |
| **Energy Intake (kJ)** | 7260 (425) | 8010 (1330) | 6250 (2990) | 9060 (3470) | 7700 (1120) | 9090 (751) | 7100 (1860) | 8490 (1910) |
| **Lipid intake (g)** | 78.7 [69.5, 89.6] | 61.7 [51.1, 78.2] | 51.7 [39.9, 68.1] | 108 [81.1, 112] | 77.5 [74.7, 89.5] | 76.6 [76.1, 77.1] | 74.6 [60.8, 88.1] | 75.6 [54.9, 86.7] |
| **Carbohydrate intake (g)** | 173 [158, 185] | 191 [156, 282] | 140 [131, 157] | 223 [168, 274] | 205 [175, 214] | 265 [251, 279] | 166 [140, 205] | 223 [161, 299] |
| **Protein intake (g)** | 73.3 [70.3, 75.2] | 81.5 [79.4, 82.9] | 56.3 [49.9, 59.1] | 107 [80.3, 112] | 76.5 [65.7, 88.1] | 85.9 [85.2, 86.6] | 72.2 [57.7, 77.1] | 83.3 [80.1, 90.1] |
| **Adipose Tissue on DXA scan (%)** | 36.3 [31.9, 38.8] | 36.3 [28.0, 39.4] | 40.8 [29.0, 42.6] | 32.4 [31.3, 39.3] | 31.7 [26.3, 37.0] | 35.1 [34.8, 35.3] | 34.5 [30.5, 40.3] | 35.1 [30.2, 39.0] |
| **Android fat mass (kg)** | 1.30 [1.15, 3.50] | 1.98 [1.23, 2.97] | 1.92 [0.763, 2.39] | 2.93 [1.85, 5.36] | 1.90 [1.44, 3.25] | 2.71 [2.17, 3.25] | 1.80 [1.15, 3.25] | 2.36 [1.42, 3.35] |
| **Gynoid fat mass (kg)** | 4.51 [4.36, 5.13] | 4.41 [3.24, 6.72] | 4.19 [3.08, 6.96] | 4.51 [4.17, 6.15] | 5.09 [4.11, 8.02] | 4.81 [4.64, 4.97] | 4.65 [4.12, 6.78] | 4.49 [3.77, 6.21] |
| **Total lean mass (kg)** | 42.6 [40.4, 46.0] | 40.4 [34.4, 42.3] | 36.7 [35.7, 43.2] | 47.5 [40.2, 56.8] | 43.7 [38.7, 45.6] | 50.1 [47.3, 52.8] | 42.3 [37.0, 45.7] | 42.3 [35.0, 48.0] |
| **IFNα Z-Score (m.1.2)** | 0.198 (0.425) | 0.262 (0.466) | 4.80 (1.20) | 3.25 (1.13) | 8.82 (1.76) | 9.68 (2.62) | 4.75 (3.95) | 2.58 (3.70) |
| **IFNβ Z-Score (m.3.4)** | 0.0883 (0.206) | 0.216 (0.261) | 1.41 (0.561) | 0.905 (0.540) | 2.22 (0.437) | 2.60 (1.05) | 1.26 (1.01) | 0.785 (0.999) |
| **IFNγ Z-Score (m.5.12)** | 0.121 (0.157) | 0.137 (0.258) | 0.662 (0.465) | 0.573 (0.567) | 0.908 (0.159) | 0.880 (0.222) | 0.569 (0.435) | 0.370 (0.438) |
| **Hemoglobin (mmol/L)** | 7.55 (0.497) | 8.20 (0.762) | 7.70 (0.827) | 7.83 (0.764) | 7.68 (0.592) | 7.70 (0.424) | 7.63 (0.601) | 8.03 (0.698) |
| **Thrombocytes (10^9/L)** | 250 (40.8) | 233 (43.9) | 233 (53.7) | 206 (53.0) | 233 (80.6) |  | 242 (52.9) | 220 (41.4) |
| **Estimated Glomerular Filtration Rate (ml/min/1.73m²)** | 83.5 [82.8, 84.3] | 85.5 [83.8, 87.3] | 71.0 [68.5, 75.0] |  | 88.0 [88.0, 88.0] | 79.0 [79.0, 79.0] | 80.5 [73.0, 84.3] | 82.0 [80.5, 85.5] |
| **β2 microglobuline (mg/L)** | 1.68 [1.66, 1.97] | 1.95 [1.74, 2.06] | 2.65 [2.61, 2.98] | 2.16 [1.79, 2.54] | 2.31 [2.19, 2.63] | 2.84 [2.84, 2.84] | 2.14 [1.74, 2.52] | 2.00 [1.65, 2.54] |
| Table 1 | | | | | | | | |
| Categorical variables given as N(Percentage)     Variables assumed to be normally distributed given as Mean(SD)    Variables witout assumption of normality given as Median [Q1,Q3] | | | | | | | | |
| Test 1 denotes the first test done on the initial visit.    Test 2 denotes the second test done following the OGTT    SLE: Systemic Lupus Erythematosus, SLEDAI: Systemic Lupus Erythematosus Disease Activity Index, SLICC EULAR/ACR 2019: Systemic Lupus International Classification Criteria point as defined by American College of Rheumatology & European League Against Rheumatism in 2019    FSS: Fatigue Severity Scale, IFN: Interferon, DXA: Dual X-ray Absorptiometry Scan, VO₂max: Maximal Oxygen Uptake, not corrected for body weight, MVPA: Moderate or Vigorous Activity | | | | | | | | |