**Supplemental Digital Content 5.** Changes in muscle parameters, in body composition and in bone mineral density

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | W38: 2019/09/16 |  | W22 : 2020/05/25 |
| **Body Composition**  **Dual- Energy**  **X- Ray absorptiometry (DXA)**  Hologic Horizon A | **BMC (gr)** | | **Arm** | L | **240.05** | - 2.3% | **234.53** |
| R | **234.30** | + 3.1% | **241.52** |
| **Trunk** |  | **570.22** | **+ 21.3%** | **691.80** |
| **Leg** | L | **355.88** | + 4.1% | **370.49** |
| R | **341.94** | + 2.1% | **349.11** |
| **Subtotal** | | **1742.39** | + 8.3% | **1887.45** |
| **FM (gr)** | | **Arm** | L | **1086** | - 4.5% | **1037** |
| R | **1325** | - 11.5% | **1172** |
| **Trunk** |  | **7305** | + 15.7% | **8449** |
| **Leg** | L | **3734** | + 0.4% | **3748** |
| R | **3657** | + 4.6% | **3825** |
| **Subtotal** | | **17106** | + 6.6% | **18231** |
| **LM (gr)** | | **Arm** | L | **4301.8** | - 6.2% | **4033.1** |
| R | **3775.1** | + 4.1% | **3929.0** |
| **Trunk** |  | **28470.4** | + 3.5% | **29476.6** |
| **Leg** | L | **6524.2** | **+ 29.5%** | **8448.9** |
| R | **6718.5** | **+ 29.2%** | **8679.1** |
| **Subtotal** | | **49790.0** | + 9.6% | **54566.6** |
| **LM + BMC (gr)** | | **Arm** | L | **4542** | - 11.2% | **4033** |
| R | **4009** | - 2.0% | **3929** |
| **Trunk** |  | **29041** | + 1.5% | **29476** |
| **Leg** | L | **6880** | **+ 22.8%** | **8449** |
| R | **7060** | **+ 22.9%** | **8679** |
| **Subtotal** | | **51532** | + 5.9% | **54567** |
| **Total mass (gr)**  **= FM + LM + BMC** | | **Arm** | L | **5627.7** | - 5.7% | **5304.7** |
| R | **5334.2** | + 0.2% | **5342.7** |
| **Trunk** |  | **36345.5** | + 6.3% | **38617.7** |
| **Leg** | L | **10613.8** | **+ 18.4%** | **12567.8** |
| R | **10717.1** | **+ 19.9%** | **12852.7** |
| **Subtotal** | | **68638.4** | + 8.8% | **74687.6** |
| **% Fat mass** | | **Arm** | L | **19.3** | + 1.6% | **19.6** |
| R | **24.8** | - 11.7% | **21.9** |
| **Trunk** |  | **20.1** | + 9.0% | **21.9** |
|  | **Leg** | L | **35.2** | **- 15.3%** | **29.8** |
|  | R | **34.1** | **- 12.6%** | **29.8** |
|  | **Subtotal** | | **24.9** | - 2.0% | **24.4** |
| **Bone Mineral Density (gr/cm2)**  **Dual-Energy**  **X- Ray absorptiometry (DXA)**  Hologic Horizon A | | Total Body | **BMD** |  | **1.193** | -1.6% | **1.174** |
| **T score** |  | **0.0** |  | **- 0.2** |
| SPINE  L1- L2- L3- L4 | **BMD** |  | **0.965** | -2.2% | **0.944** |
| **T score** |  | **- 1.1** |  | **- 1.3** |
| **Z- score** |  | **- 1.0** |  | **- 1.2** |
| **TBS** |  | **1.337** |  | **1.343** |
| Left HIP | **BMD** |  | **0.666** | **-24.0%** | **0.506** |
| **T score** |  | **- 2.4** |  | **- 3.5** |
| **Z- score** |  | **- 2.2** |  | **- 3.3** |

L, Left; R, Right; BMD, Bone Mineral Density; BMC, Bone Mineral Content; FM, Fat Mass; LM, Lean Mass; TBS, Trabecular Bone Score