Supplemental Digital Content 2

Table

Responses during 3, 10 and 40 min TTs in % of pre-TT.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **3-min TT** | **10-min TT** | **40-min TT** |
| **Self-paced contractions** |  |  |  |  |
| Force (N) | Mean TT | 64 ± 8 | 55 ± 12 ££ | 46 ± 8 £££, $$ |
|  | First set | 66 ± 11 | 53 ± 11 ££ | 43 ± 7 £££, $ |
|  | Last set | 64 ± 12 | 63 ± 12 | 62 ± 10 |
|  | 0-25% | 66 ± 11 | 52 ± 10 | 41 ± 6 |
|  | 25-50% | 63 ± 10 | 52 ± 12 | 42 ± 8 |
|  | 50-75% | 62 ± 11 | 56 ± 13 \* | 46 ± 8 \*\* |
|  | 75-100% | 64 ± 12 | 61 ± 13 \*\* | 53 ± 9 \*\*\* |
|  |  |  |  |  |
| RMS∙M-1 VL | Mean TT | 74 ± 9 | 65 ± 11 £ | 54 ± 8 £££, $ |
|  | First set | 57 ± 14 | 49 ± 13 | 40 ± 7 £££ |
|  | Last set | 95 ± 15 | 91 ± 12 | 82 ± 12 |
|  | 0-25% | 57 ± 14 | 54 ± 11 | 44 ± 8 |
|  | 25-50% | 66 ± 13 | 58 ± 12 | 49 ± 9 |
|  | 50-75% | 77 ± 10 | 65 ± 11 \* | 54 ± 10 |
|  | 75-100% | 95 ± 15 \*\* | 82 ± 12 \*\*\* | 69 ± 11 \*\*\* |
|  |  |  |  |  |
| RMS∙M-1 VM | Mean TT | 78 ± 11 | 66 ± 11 ££ | 54 ± 10 £££, $$ |
|  | First set | 60 ± 12 | 52 ± 12 £ | 43 ± 9 £££ |
|  | Last set | 99 ± 20 | 91 ± 17 | 82 ± 18 £ |
|  | 0-25% | 60 ± 12 | 57 ± 10 | 47 ± 10 |
|  | 25-50% | 70 ± 13 | 60 ± 12 | 50 ± 12 |
|  | 50-75% | 81 ± 12 | 66 ± 12 \* | 53 ± 13 |
|  | 75-100% | 99 ± 20 \*\* | 82 ± 14 \*\*\* | 68 ± 12 \*\*\* |
| **Central fatigue** |  |  |  |  |
| MVCCON RMS∙M-1 VL | Mean TT | 106 ± 11 | 107 ± 14 | 100 ± 11 |
|  | First set | 104 ± 12 | 108 ± 21 | 99 ± 21 |
|  | Last set | 114 ± 23 | 114 ± 17 | 101 ± 13 |
|  | 0-25% | 104 ± 12 | 108 ± 16 | 101 ± 9 |
|  | 25-50% | 104 ± 17 | 106 ± 13 | 101 ± 17 |
|  | 50-75% | 104 ± 13 | 108 ± 16 | 99 ± 17 |
|  | 75-100% | 114 ± 23 | 108 ± 15 | 100 ± 11 |
|  |  |  |  |  |
| MVCCON RMS∙M-1 VM | Mean TT | 107 ± 14 | 104 ± 16 | 98 ± 12 |
|  | First set | 104 ± 12 | 105 ± 24 | 105 ± 20 |
|  | Last set | 114 ± 28 | 112 ± 22 | 96 ± 15 |
|  | 0-25% | 105 ± 12 | 100 ± 19 | 102 ± 12 |
|  | 25-50% | 101 ± 18 | 100 ± 18 | 97 ± 18 |
|  | 50-75% | 111 ± 13 | 103 ± 20 | 90 ± 19 |
|  | 75-100% | 112 ± 29 | 106 ± 18 | 95 ± 13 |
| **Neuromuscular fatigue** |  |  |  |  |
| MVCCON (N) | Mean TT | 82 ± 12 | 86 ± 14 | 90 ± 12 ££ |
|  | First set | 102 ± 11 | 102 ± 14 | 95 ± 15 |
|  | Last set | 67 ± 14 | 68 ± 14 | 70 ± 17 |
|  | 0-25% | 102 ± 11 | 93 ± 13 | 95 ± 10 |
|  | 25-50% | 82 ± 19 \*\* | 86 ± 16 \* | 95 ± 12 |
|  | 50-75% | 76 ± 14 | 88 ± 16 | 88 ± 16 |
|  | 75-100% | 67 ± 14 | 76 ± 16 \*\*\* | 81 ± 15 |
| **Peripheral fatigue** |  |  |  |  |
| PS100 evoked peak force (N) | Mean TT | 77 ± 9 | 78± 8 | 78 ± 8 |
|  | First set | 89 ± 5 | 92± 4 | 91 ± 3 |
|  | Last set | 63 ± 13 | 62 ± 12 | 58 ± 15 £ |
|  | 0-25% | 89 ± 5 | 85± 5 | 86 ± 5 |
|  | 25-50% | 82 ± 10\* | 80± 9 | 80 ± 4 \* |
|  | 50-75% | 74 ± 11 \*\* | 77± 10 | 77 ± 10 |
|  | 75-100% | 63 ± 13 \*\*\* | 67 ± 11 \*\*\* | 67 ± 13 \*\*\* |
|  |  |  |  |  |
| SS evoked peak force (N) | Mean TT | 62 ± 13 | 65 ± 13 | 68 ± 11 £ |
|  | First set | 80 ± 9 | 86 ± 7 £ | 87 ± 6 ££ |
|  | Last set | 45 ± 17 | 45 ± 16 | 42 ± 18 |
|  | 0-25% | 80 ± 9 | 74 ± 10 | 78 ± 10 |
|  | 25-50% | 67 ± 15 \*\*\* | 68 ± 16 | 70 ± 12 \* |
|  | 50-75% | 55 ± 15 \*\* | 64 ± 15 | 66 ± 13 |
|  | 75-100% | 45 ± 17 \* | 50 ± 16 \*\*\* | 52 ± 17 \*\*\* |
|  |  |  |  |  |
| **RPE** | Mean TT | 15.7 ± 1.8 | 15.9 ± 1.8 | 14.9 ± 1.2 |
|  | First set | 12.9 ± 2.9 | 11.2 ± 2.8 | 9.3 ± 2.0 £££, $ |
|  | Last set | 18.0 ± 1.4 | 19.1 ± 1.2 £ | 19.0 ± 0.8 £ |
|  | 0-25% | 12.9 ± 2.9 | 13.3 ± 2.3 | 11.9 ± 2.0 |
|  | 25-50% | 15.3 ± 2.1 \*\*\* | 15.7 ± 1.8 \*\*\* | 14.1 ± 1.5 \*\*\* |
|  | 50-75% | 16.5 ± 1.4 \* | 16.5 ± 2.0 \* | 15.6 ± 1.2 \*\* |
|  | 75-100% | 18.0 ± 1.4 \* | 18.2 ± 1.6 \*\*\* | 17.8 ± 0.9 \*\*\* |

Values are expressed as means ± SD, n = 12 for all variables except data containing VL (n=11). Values for every 25% of TT duration are mean of all values during the time segment. RMS∙M-1, root mean square divided by M-wave peak to peak amplitude; VL, vastus lateralis; VM, vastus medialis; MVC, maximal voluntary contraction; con, concentric; PS100, paired stimuli at 100 Hz; SS, single stimulus; RPE, rating of perceived exertion. Significant difference from 3-min TT for mean TT, first or last set: £ P < 0.05, ££ P < 0.01, £££ P < 0.001. Significant difference from 10-min TT for mean TT, first or last set: $ P < 0.05, $$ P < 0.01. Significant difference from previous 25% of the TT for the same TT: \* P < 0.05, \*\* P < 0.01, \*\*\* P < 0.001.