**Supplemental Digital Content 3. Subject characteristics used for association analysis of muscle injury in J-HAP (n = 1564)**

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| --- | --- | --- | --- |
|  | Muscle injury  n = 191 | No muscle injury  n = 1373 | *P*-value |
| Sex |  |  | 0.512a |
| Male, n (%) | 134 (70.2) | 931 (67.8) |  |
| Female, n (%) | 57 (29.8) | 442 (32.2) |  |
| Age, y | 20.2 ± 1.7 | 20.5 ± 2.8 | 0.115b |
| Competitive level |  |  | 0.147a |
| International, n (%) | 17 (8.9) | 154 (11.2) |  |
| National, n (%) | 113 (59.2) | 755 (55.0) |  |
| Regional, n (%) | 30 (15.7) | 289 (21.1) |  |
| Others, n (%) | 31 (16.2) | 175 (12.8) |  |
| Main sport |  |  | **<0.001**a |
| Track & field, n (%) | 91 (47.6) | 341 (24.8) |  |
| Soccer, n (%) | 63 (33.0) | 600 (43.7) |  |
| Others, n (%) | 37 (19.4) | 432 (31.5) |  |
| Playing years in main sport, y | 10.4 ± 3.9 | 11.2 ± 3.9 | **0.009**b |

Values are presented as the means ± SD unless noted otherwise. Bold emphasis: *P* < 0.05. a *P*-value by the Pearson’s χ2 test, b *P*-value by the unpaired t-test.