**Table S1.** Percentage of maximum heart rate (%HRmax) indicating effort intensity in geriatric horses practising structured exercise regimen

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Horses** | **Exercise pattern 1** | **Exercise pattern 2** | **Exercise pattern 3** | **Overall exercise regimen** |
| **Mean HR (bpm)** | **%HRmax** | **Mean HR (bpm)** | **%HRmax** | **Mean HR (bpm)** | **%HRmax** | **Mean HR (bpm)** | **%HRmax** |
| 1 | 87 | 39.55 | 122 | 55.45 | 105 | 47.73 | 106 | 48.18 |
| 2 | 117 | 53.18 | 175 | 79.55 | 121 | 55.00 | 132 | 60.00 |
| 3 | 116 | 52.73 | 156 | 70.91 | 127 | 57.73 | 128 | 58.18 |
| 4 | 105 | 47.73 | 123 | 55.91 | 106 | 48.18 | 109 | 49.55 |
| 5 | 122 | 55.45 | 190 | 86.36 | 143 | 65.00 | 141 | 64.09 |
| 6 | 95 | 43.18 | 117 | 53.18 | 104 | 47.27 | 100 | 45.45 |
| 7 | 137 | 62.27 | 153 | 69.55 | 118 | 53.64 | 129 | 58.64 |
| 8 | 108 | 49.09 | 132 | 60.00 | 129 | 58.64 | 119 | 54.09 |
| 9 | 188 | 85.45 | 188 | 85.45 | 180 | 81.82 | 170 | 77.27 |
| **Mean ± SD** | **119.4±29.6** | **54.3±13.5** | **150.7±28.8** | **68.5±13.1** | **125.9±24.1** | **57.2±10.9** | **126.0±21.3** | **57.3±9.7** |

**HR:** heart rate; **%HRmax**: mean HR computed as a percentage of reference maximum heart rate in ponies (220 beats/min)

**Table S2.** HRV variables in aged horses living sedentarily (SEL), retaining unstructured physical activity (RAT) and practising the structured exercise regimen (SER) at the onset of the study (control)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **SEL group (N = 9)** | **RAT group (N = 7)** | **SER group (N = 9)** | **SEL vs RAT****(*p*-value)** | **SEL vs SER****(*p*-value)** | **RAT vs SER****(*p*-value)** |
| SDNN (ms) | 71.38±23.55 | 54.87±8.30 | 94.11±34.23 | 0.3900 | 0.1329 | 0.0061**\*** |
| RMSSD (ms) | 78.86±32.57 | 52.56±6.97 | 106.80±56.90 | 0.2765 | 0.1916 | 0.0053\* |
| DCmod (ms) | 76.63±30.74 | 51.90±7.48 | 109.73±56.22 | 0.3151 | 0.0969 | 0.0025\* |
| pNN50 (%) | 39.59±15.69 | 28.68±7.37 | 46.06±19.45 | 0.3622 | 0.6620 | 0.0789 |
| TINN (ms) | 400.22±127.22 | 307.71±60.61 | 474.22±163.76 | 0.3040 | 0.4173 | 0.0234\* |
| RRTI  | 14.73±4.12 | 11.82±1.93 | 17.80±6.78 | 0.4414 | 0.3606 | 0.0357\* |
| TP (ms2) | 4982.00±2823.43 | 2634.29±767.31 | 9403.44±7058.34 | 0.4713 | 0.0509 | 0.0027\* |
| SD1 (ms) | 55.81±23.06 | 37.20±4.92 | 75.77±40.35 | 0.2716 | 0.1817 | 0.0047\* |
| SD2 (ms) | 83.36±27.16 | 67.86±12.79 | 108.08±32.28 | 0.5204 | 0.1534 | 0.0145\* |

**RR:** beat-to-beat interval**; SDNN:** standard deviation of normal-to-normal RR intervals**; RMSSD:** root mean square of differences between successive RR intervals**; pNN50:** relative number of successive RR interval pairs differing by more than 50 ms**; DCmod:** modified deceleration capacity**; TINN:** triangular interpolation of normal-to-normal RR intervals; **RRTI:** RR triangular index**; TP:** total power band; **SD1:** standard deviation of the Poincaré plot perpendicular to the line of identity**; SD2:** standard deviation of the Poincaré plot along the line of identity**.**