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| Table 4. Kinetic parameters of the muscle deoxy[heme] responses during supine and upright cycle exercise at the same absolute and relative work rates for both deep and superficial muscle (n = 10) | | | |
|  | Supine | Upright | |
| Baseline (μM) |  | Absolute | Relative |
| VLd | 32 ± 14 | 38 ± 19 | 40 ± 20 |
| VLs | 49 ± 38 | 46 ± 14 | 53 ± 20 |
| RFs | 61 ± 55a | 62 ± 44a | 55 ± 25a |
| TD (s) |  |  |  |
| VLd | 13 ± 7\*† | 16 ± 7 | - |
| VLs | 10 ± 6\*† | 15 ± 9 | 16 ± 5 |
| RFs | 11 ± 6\*† | 20 ± 9# | 20 ± 7 |
| τdeoxy[heme] |  |  |  |
| VLd | 22 ± 11\* | 9 ± 5 | - |
| VLs | 13 ± 7\* | 10 ± 2 | 11 ± 7 |
| RFs | 20 ± 10\* | 11 ± 4 | 24 ± 16# |
| *A*deoxy[heme] (μM) |  |  |  |
| VLd | 31 ± 33\*† | 16 ± 23 | 13 ± 15 |
| VLs | 27 ± 16\*† | 15 ± 9 | 15 ± 7 |
| RFs | 25 ± 14\*† | 10 ± 7 | 17 ± 10 |
| End-exercise deoxy[heme] (μM) |  |  |  |
| VLd | 61 ± 47 | 54 ± 40 | 58 ± 35 |
| VLs | 77 ± 50 | 63 ± 21 | 73 ± 26 |
| RFs | 89 ± 67\*b | 74 ± 47 | 74 ± 34b |
| Deoxy[heme] SC (μM) |  |  |  |
| VLd | 2.57 ± 7.52 | 1.02 ± 7.03 | - |
| VLs | 0.35 ± 5.61 | 1.33± 5.24 | 4.26 ± 3.65 |
| RFs | 3.17 ± 2.51 | 8.97 ± 0.46 | 2.15 ± 7.80 |
| *A*deoxy[heme]/τdeoxy[heme] (μM.s-1) |  |  |  |
| VLd | 2.10 ± 2.08 | 2.46 ± 2.42 | - |
| VLs | 2.46 ± 1.52 | 1.67 ± 0.96 | 2.00 ± 1.50 |
| RFs | 1.55 ± 1.03 | 0.75 ± 0.24 | 0.99 ± 0.74 |
| |  | | --- | | Deoxy[heme], muscle deoxygenated [heme] concentration; baseline, average value over final 30 s of baseline period; TD, fundamental time delay; τdeoxy[heme], fundamental time constant; *A*deoxy[heme], fundamental amplitude; end-exercise, average value over final 30 s of exercise; SC, magnitude of the slow component; *A*deoxy[heme]/τdeoxy[heme],rate of change. \* different from upright absolute work rate in same muscle, †different from upright relative work rate in same muscle, # different from VLs (i.e. main effect of posture), a different from VLd (i.e. main effect of muscle), b indicates different from VLd within same posture (*P* < 0.05). – indicates that a low signal-to-noise ratio precluded confident kinetic modelling at the matched relative work rate in the upright position. See text for more details. | | | | |