**Supplemental Digital Content 3**

**table 2. Arterial blood gases during mechanical ventilation**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Initial | 60 min | Final | Time Effect | Group Effect | Time *vs.* Group Effect |
| **pHa** |  |  |  | p=0.760 | p=0.001 | p=0.184 |
| Control | 7.4 ± 0.10 | 7.4 ± 0.05 | 7.3 ± 0.04 |  |  |  |
| No adaptation time | 7.4 ± 0.03 | 7.3 ± 0.10 | 7.4 ± 0.10 | ‡ |  |  |
| Shorter adaptation time | 7.4 ± 0.10 | 7.4 ± 0.10\*,**‖** | 7.4 ± 0.10\* |  |  |  |
| Longer adaptation time | 7.4 ± 0.02 | 7.4 ± 0.06\*,**‖** | 7.4 ± 0.05\* |  |  |  |
| **PaO2/FiO2** |  |  |  | p=0.001 | p=0.070 | p=0.001 |
| Control | 331 ± 76 | 305 ± 59 | 311 ± 43 |  |  |  |
| No adaptation time | 328 ± 52 | 361 ± 50 | 403 ± 55\* | †‡ |  |  |
| Shorter adaptation time | 340 ± 34 | 433 ± 42\*,**‖** | 443 ± 29\* | †‡ |  |  |
| Longer adaptation time | 348 ± 53 | 427 ± 38\*,**‖** | 422 ± 39\* | † |  |  |
| **PaCO2 (mmHg)** |  |  |  | p=0.006 | p<0.0001 | p=0.312 |
| Control | 38 ± 9 | 40 ± 6 | 39 ± 8 |  |  |  |
| No adaptation time | 37 ± 4 | 43 ± 11 | 29 ± 9 | ‡ |  |  |
| Shorter adaptation time | 34 ± 9‖ | 31 ± 9\* | 28 ± 8\* | † |  |  |
| Longer adaptation time | 35 ± 4 | 32 ± 7\* | 32 ± 5\* |  |  |  |
| **HCO3- (mEq/L)** |  |  |  | p=0.003 | p=0.149 | p=0.719 |
| Control | 22.5 ± 2.5 | 21.7 ± 3.5 | 21.2 ± 5.1 |  |  |  |
| No adaptation time | 22.6 ± 2.8 | 21.2 ± 3.5 | 18.9 ± 4.3\* |  |  |  |
| Shorter adaptation time | 22.4 ± 2.2 | 21.2 ± 2.4 | 19.9 ± 2.9 | † |  |  |
| Longer adaptation time | 23.8 ± 1.6 | 22.5 ± 2.9 | 22.5 ± 1.4 |  |  |  |

Arterial blood gases at Initial time, 60 minutes, and Final time in the following groups: mechanical ventilation with a protective strategy (VT=6mL/kg) for 2 hours (Control); VT=6mL/kg during hour 1 followed by an abrupt increase in VT=22mL/kg during hour 2 (No adaptation time); VT=6mL/kg during the first 30 minutes followed by a gradual VT increase up to 22mL/kg for 30 minutes, then constant VT=22mL/kg during hour 2 (Shorter adaptation time); and a more gradual VT increase, from 6mL/kg to 22mL/kg during hour 1 followed by VT=22mL/kg during hour 2 (Longer adaptation time). pHa: arterial pH; PaO2/FiO2: arterial oxygen partial pressure divided by oxygen fraction; PaCO2: arterial carbon dioxide partial pressure; HCO3-: bicarbonate. Values are mean ± standard deviation (SD) of 8 animals in each group. Comparisons were done using a generalized linear model (p<0.05). \* *versus* Control; ‖*versus* No adaptation time group; † *versus* Initial;‡ *versus* 60 min.