**Supplemental Digital Content 12**

**Supplemental Table 6:** Blood gas analysis

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameter** | **Time** | **Low-VT/Moderate-PEEP****(RM-)** | **Low-VT/Moderate-PEEP****(4RM+)** | **Low-VT/High-PEEP****(RM-)** | **Low-VT/High-PEEP****(1RM+)** |
| **pHa** | **After laparotomy**  | 7.43 ± 0.04 | 7.42 ± 0.34 | 7.4 ± 0.02 | 7.44 ± 0.07 |
| **FDA4** | 7.39 ± 0.05 | 7.28 ± 0.07\* | 7.4 ± 0.08 | 7.32 ± 0.09 |
| **PaCO2** **(mmHg)** | **After laparotomy** | 29.9 ± 4.2 | 33.9 ± 5.5 | 31.3 ± 3.5 | 32.57 ± 7.0 |
| **FDA4** | 26 ± 7.6 | 37.9 ± 10.7 | 31.6 ± 8.3 | 36.86 ± 10.8 |
| **PaO2/FiO2** | **After laparotomy**  | 365 ± 102 | 427 ± 56 | 405 ± 91 | 382 ± 100 |
| **FDA4** | 493 ± 65 | 350 ± 97\* | 472 ± 121 | 341 ± 100 |
| **Bicarbonate(mmol/L)** | **After laparotomy** | 20.9 ± 1.8 | 22.9 ± 1.4 | 20.9 ± 1.3 | 22.9 ± 2.3 |
| **FDA4** | 15.5 ± 2.2 | 17.8 ± 3.1 | 18.1 ± 3.9 | 17.4 ± 3.4 |

Blood gas analysis after laparotomy and at functional data acquisition time point 4 (FDA4). pHa: arterial pH; PaCO2: partial pressure of arterial carbon dioxide; PaO2/FiO2: ratio of arterial oxygen partial pressure to fractional inspired oxygen. Values are mean ± standard deviation (SD) of seven rats in each group: 1) VT = 7 mL/kg with PEEP = 3 cmH2O and no RMs (Low-VT/moderate-PEEP/RM-); 2) VT = 7 mL/kg with PEEP = 3 cmH2O and RMs (Low-VT/moderate-PEEP/4RM+), which were performed through a continuous positive airway pressure of 30 cmH2O for 30 seconds after randomization (before laparotomy) and every 1 hour thereafter; 3) VT = 7 mL/kg with PEEP = 6 cmH2O and no RMs (Low-VT/high-PEEP/RM-); 4) VT = 7 mL/kg with PEEP = 6 cmH2O and RMs (Low-VT/high-PEEP/1RM+), which were performed as described above but only before laparotomy. \*P<0.05 vs (Low-VT/moderate-PEEP/RM+).