**Supplemental Digital Content 4.** Physiological characteristics of pigs ventilated in the prone vs. supine position at two different level of PEEP before and after hydrochloric acid instillation in the trachea. PIP: peak inspiratory pressure. †: P<0.05 between levels of PEEP; §: P<0.05 supine vs. prone; ¶: P<0.05 healthy vs. injury.

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| --- | --- | --- |
|  | ***Supine*** | ***Prone*** |
|  | ***Healthy*** | ***Injury*** | ***Healthy*** | ***Injury*** |
| ***PEEP (cmH2O)*** | 5 | 10 | 5 | 10 | 5 | 10 | 5 | 10 |
| ***TV (ml/kg)*** | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| ***pCO2 (mmHg)*** | 47.8±5.0 | 56.8±12.2 | 53.3±10.6 | 56.6±11.4 | 54.1±8.2 | 56.9±13.9 | 53.0±9.9 | 51.0±5.0 |
| ***pO2 (mmHg)*** | 251.5±50.4 | 265.6±64.7 | 161.1±116.9 ¶§ | 171.8±100.2 ¶§ | 286.1±43.3 | 276.0±59.5 | 223.7±30.8 ¶ | 248.3±40.0 |
| ***SpO2*** | 99.8±0.2 | 99.0±1.0 | 87.1±15.9 ¶§ | 94.2±6.6 ¶ | 99.9±0.3 | 99.6±0.7 | 99.5±0.5 | 99.6±0.4 |
| ***Lactate*** | 1.9±1.3 | 1.7±1.6 | 1.9±0.9 | 2.3±1.5 | 2.7±1.2 | 1.8±1.4 | 2.1±1.2 | 2.5±1.3 |
| ***PIP (cmH2O)*** | 18.0±2.5 | 26.0±1.7 † | 24.0±4.8 ¶ | 29.8±3.4 | 17.±2.6 | 24.0±1.7 † | 22.8±4.6 ¶ | 27.5±2.9 |
| ***Driving Pressure (cmH2O)*** | 13.0±2.6 | 16.0±1.7 | 19.0±4.8 ¶ | 19.8±3.4 | 12.5±2.7 | 14.0±1.7 | 17.8±4.6 ¶ | 17.5±2.9 |
| ***Compliance (ml/cmH2O)*** | 20.1±3.1 | 16.8±2.8 | 14.6±4.2 ¶ | 13.5±2.1 | 21.6±4.5 | 19.2±1.9 | 15.4±3.6 ¶ | 15.2±2.1 |