**Online supplement 2 - Table:** Effect of intra-abdominal hypertension and lung injury on cardio-respiratory variables

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| --- | --- | --- | --- |
| Lungs | Healthy | Injured | Healthy vs. Injured |
| Abdomen | Baseline | IAH | p | Baseline | IAH | p | p (Baseline) | p (IAH) |
| P/F ratio, mmHg | 542 (539,547) | 491 (483,503) | 0.47 | 153 (146,232) | 135 (115,138) | 0.26 | **<0.01** | **<0.01** |
| *P*aw, insp, cmH2O | 17 (16,17) | 30 (28,31) | **<0.01** | 23 (23,24) | 35 (34,36) | **<0.01** | **<0.01** | **<0.01** |
| *P*es, exp, cmH2O | 10 (6,11) | 12 (9,13) | 0.99 | 10 (9,19) | 13 (12,19) | 0.99 | 0.81 | 0.79 |
| *P*es, insp, cmH2O | 13 (11,14) | 25 (24,27) | **0.01** | 17 (14,23) | 28 (28,32) | **0.01** | 0.61 | 0.83 |
| *E*rs, cmH2O/L | 39 (39,42) | 91 (90,94) | **<0.01** | 73 (62,75) | 119 (116,120) | **<0.01** | **<0.01** | **<0.01** |
| *E*W, cmH2O/L | 16 (14,18) | 50 (50,60) | **<0.01** | 19 (17,19) | 58 (54,60) | **<0.01** | 0.97 | 1.00 |
| *E*L, cmH2O/L | 26 (21,28) | 40 (35,44) | **0.03** | 50 (4,53) | 59 (59,69) | 0.06 | **<0.01** | **<0.01** |
| C.O., L/min | 4.2 (4.1,4.5) | 5.1 (4.6,5.1) | 0.92 | 4.0 (3.4,4.8) | 4.9 (4.3,5.4) | 0.92 | 1.00 | 1.00 |
| *P*a, mean, mmHg | 95 (85,101) | 103 (94,113) | 0.99 | 117 (91,118) | 102 (100,115) | 1.00 | 0.85 | 1.00 |
| HR, beats/min | 79 (78,81) | 91 (85,93) | 1.00 | 135 (135,136) | 141 (136,145) | 1.00 | 0.91 | 1.00 |
| NA, mcg/kg/min | 5 (4,20) | 5 (4,20) | 0.95 | 83 (23,116) | 20 (19,76) | 0.87 | 0.98 | 0.93 |
| *P*cv, mmHg | 6 (5,6) | 11 (11,14) | 0.47 | 11 (10,11) | 17 (12,20) | 0.26 | **<0.01** | **<0.01** |

Intra-abdominal pressure (IAP) of 27 cmH2O (20 mmHg) was applied. P, significance; P/F ratio, arterial oxygen tension/fractional inspiratory concentration of oxygen; *P*aw, plateau airway pressure; *P*es, esophageal pressure; insp, end-inspiratory; exp, end-expiratory; *E*rs, elastance of respiratory system; *E*W, elastance of chest wall; *E*L, elastance of lung; C.O., cardiac output; *P*a, mean, mean arterial pressure; HR, heart rate; NA, noradrenaline; *P*cv,, central venous pressure. Median (IQR) are given. Mixed linear effects model was used for statistical analysis.