**Supplemental Table 1:** Baseline characteristics

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Control | | OP | | PPB | | REBOA (Zone 1) | | REBOA (Zone 3) | |  |
|  | Mean | STD | Mean | STD | Mean | STD | Mean | STD | Mean | STD | p (ANOVA) |
| Weight | 42.07 | 2.32 | 43.36 | 4.01 | 43.68 | 5.45 | 43.84 | 4.72 | 45.37 | 1.72 | 0.703 |
| HR | 104.86 | 10.96 | 106.20 | 13.60 | 100.33 | 17.78 | 108.29 | 10.16 | 90.17 | 18.30 | 0.194 |
| SBP | 91.57 | 25.57 | 89.90 | 14.28 | 88.44 | 15.88 | 80.00 | 16.06 | 80.67 | 7.42 | 0.575 |
| MAP | 74.57 | 25.79 | 73.20 | 18.13 | 70.33 | 17.44 | 62.43 | 17.03 | 58.17 | 6.43 | 0.393 |
| CVP | 1.14 | 1.07 | 2.00 | 1.83 | 1.89 | 1.76 | 2.57 | 2.07 | 2.50 | 2.81 | 0.662 |
| PCWP | 3.71 | 2.14 | 5.00 | 2.54 | 4.22 | 2.33 | 5.71 | 1.80 | 6.67 | 3.72 | 0.238 |
| CI | 3.77 | 1.17 | 3.21 | .58 | 3.44 | .69 | 3.06 | .76 | 3.20 | .46 | 0.432 |
| SVR | 1609.00 | 487.50 | 1842.10 | 317.42 | 1570.67 | 432.03 | 1634.71 | 272.88 | 1434.00 | 267.32 | 0.286 |
| pH | 7.55 | .03 | 7.53 | .05 | 7.52 | .04 | 7.54 | .04 | 7.51 | .05 | 0.443 |
| pCO2 | 40.91 | 3.88 | 39.77 | 3.86 | 39.31 | 2.13 | 39.19 | 3.84 | 40.63 | 3.28 | 0.832 |
| pO2 | 467.86 | 65.10 | 398.10 | 135.00 | 421.22 | 87.29 | 443.57 | 69.82 | 438.33 | 75.96 | 0.649 |
| BD | 13.29 | 2.75 | 10.80 | 2.90 | 9.33 | 2.55 | 11.00 | 2.52 | 10.33 | 1.97 | 0.073 |
| Lactate | 2.22 | .88 | 2.41 | .91 | 2.51 | 1.34 | 2.25 | .44 | 2.14 | .85 | 0.938 |
| Hct | 24.57 | 1.90 | 25.70 | 4.00 | 23.89 | 2.80 | 24.57 | 2.37 | 25.33 | .82 | 0.682 |
| ALT | 42.00 | 5.66 | 37.29 | 7.72 | 33.86 | 7.99 | 37.00 | 8.86 | 36.00 | 5.14 | 0.719 |
| BUN | 8.30 | .42 | 7.23 | 3.25 | 6.51 | .86 | 8.44 | 2.55 | 6.10 | 1.28 | 0.384 |
| Cr | .95 | .07 | 1.10 | .17 | 1.01 | .16 | 1.08 | .13 | 1.23 | .19 | 0.138 |

Abbreviations and units: OP (open preperitoneal packing); PPB (preperitoneal balloon); REBOA (resuscitative endovascular balloon occlusion of the aorta); weight (kg); T (temperature, F); HR (heart rate, bpm); SBP (systolic blood pressure, mmHg); MAP (mean arterial pressure, mmHg); CVP (central venous pressure, mmHg); PAM (mean pulmonary artery pressure, mmHg); PCWP (pulmonary capillary wedge pressure, mmHg); CI (cardiac index, L/min/m2); SVR (systemic vascular resistance, dyn\*s/cm5); BD (base deficit); Hct (hematocrit); ALT (alanine aminotransferase, U/L); BUN (blood urea nitrogen, mg/dL); Cr (creatinine, mg/dL)

Levene’s test for homogeneity of variances was significant (p<0.05) for pCO2. Subsequent non-parametric testing for these variables using the independent-samples Kruskal-Wallis test revealed the distribution of pCO2 is the same across arms. Therefore, the null hypothesis was retained.