**Supplemental Table 1**: Physiologic response to each vasopressor in a.) the total cohort (n = 67), b.) epinephrine responders (n = 47), and c.) epinephrine non-responders (n = 20).

Pre-vasopressor means were compared with post-vasopressor maximum values using paired analyses. Medians are reported with interquartile ranges and were compared using Wilcoxon signed rank statistical tests.

IQR = interquartile range; CoPP = coronary perfusion pressure; MAP = mean arterial pressure; Mean PA = mean pulmonary artery pressure; RAP = right atrial pressure; EtCO2 = end tidal carbon dioxide; CBF = cerebral blood flow; PbtO2 = brain tissue oxygenation.

1. The total cohort (n = 67)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Pre-Epinephrine #1 (median)  (IQR) | Post-Epinephrine #1 max (median)  (IQR) | p-value | Pre-Epinephrine #2 (median)  (IQR) | Post-Epinephrine #2 max (median) (IQR) | p-value | Pre-Vasopressin (median)  (IQR) | Post-Vasopressin max (median)  (IQR) | p-value |
| CoPP | 10.77  (7.20 – 14.28) | 20.04  (13.97 – 25.35) | <0.001 | 14.99  (10.36 – 20.87) | 22.03  (17.83 – 25.62) | <0.001 | 19.63  (15.41 – 21.45) | 27.09  (22.06 – 30.17) | <0.001 |
| MAP | 37.54  (31.06 – 41.57) | 50.77  (43.36 – 56.88) | <0.001 | 46.88  (40.59 – 51.25) | 52.97  (46.87 – 59.03) | <0.001 | 48.58  (44.00 – 52.78) | 58.01  (51.04 – 63.03) | <0.001 |
| Mean PA | 23.01  (17.78 – 30.16) | 28.84  (20.67 – 34.17) | <0.001 | 25.64  (19.03 – 31.83) | 25.77  (20.43 – 32.51) | 0.15 | 24.12  (19.37 – 30.59) | 29.17  (22.72 – 39.64) | <0.001 |
| RAP | 10.96  (7.92 – 14.80) | 12.47  (9.71 – 14.92) | <0.001 | 11.20  (9.16 – 14.76) | 13.12  (10.59 – 15.79) | <0.001 | 12.42  (9.81 – 15.11) | 13.27  (10.69 – 15.82) | <0.001 |
| EtCO2 | 28.04  (22.55 – 32.49) | 29.44  (25.85 – 37.09) | <0.001 | 28.81  (23.83 – 35.49) | 29.46  (24.57 – 37.99) | 0.83 | 29.00  (23.24 – 37.14) | 28.75  (21.06 – 34.58) | 0.52 |
| CBF | 75.08  (35.64 – 180.70) | 128.96  (68.23 – 235.5) | <0.001 | 99.25  (56.56 – 220.57) | 122.59  (67.26 – 258.81) | 0.16 | 111.14  (61.35 – 215.10) | 131.51  (71.12 – 287.33) | <0.001 |
| PbtO2 | 14.57  (2.24 – 85.20) | 13.37  (4.38 – 86.83) | 0.004 | 13.11  (3.37 – 77.30) | 17.72  (5.54 – 86.62) | 0.005 | 17.34  (5.42 – 81.61) | 20.16  (8.86 – 88.26) | <0.001 |

1. Epinephrine responders (n = 47)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Pre-Epinephrine #1 (mean)  (IQR) | Post-Epinephrine #1 (max)  (IQR) | p-value | Pre-Epinephrine #2 (mean)  (IQR) | Post-Epinephrine #2 (max)  (IQR) | p-value | Pre-Vasopressin (mean)  (IQR) | Post-Vasopressin (max)  (IQR) | p-value |
| CoPP | 11.88  (8.05 – 14.68) | 23.44  (17.91 – 27.15) | <0.001 | 20.29  (14.69 – 22.01) | 23.87  (21.84 – 28.73) | <0.001 | 20.98  (19.46 – 22.36) | 28.65  (24.15 – 33.74) | <0.001 |
| MAP | 37.60  (31.06 – 41.41) | 54.92  (48.31 – 58.94) | <0.001 | 49.31  (42.53 – 52.71) | 56.47  (52.36 – 59.50) | <0.001 | 51.34  (47.66 – 53.19) | 60.33  (56.39 – 64.07) | <0.001 |
| Mean PA | 23.11  (16.24 – 30.52) | 29.22  (18.49 – 34.17) | 0.003 | 26.22  (17.97 – 31.90) | 26.77  (20.18 – 32.29) | 0.11 | 24.42  (18.10 – 30.60) | 30.71  (23.28 – 46.48) | <0.001 |
| RAP | 11.61  (3.13 – 15.15) | 12.87  (10.22 – 15.92) | <0.001 | 12.46  (9.55 – 15.15) | 13.32  (10.62 – 16.12) | <0.001 | 13.02  (9.91 – 15.39) | 13.54  (10.83 – 16.27) | <0.001 |
| EtCO2 | 28.04  (22.55 – 34.32) | 30.18  (26.74 – 40.49) | <0.001 | 30.17  (25.37 – 38.04) | 32.91  (26.01 – 38.97) | 0.51 | 30.57  (25.06 – 37.26) | 31.65  (25.25 – 35.34) | 0.86 |
| CBF | 73.07  (29.01 – 139.43) | 120.03  (34.98 – 234.28) | <0.001 | 98.50  (29.59 – 214.67) | 121.31  (36.58 – 246.76) | 0.13 | 108.67  (33.42 – 207.98) | 130.93  (40.94 – 285.35) | <0.001 |
| PbtO2 | 15.00  (2.12 – 85.58) | 17.48  (4.31 – 86.30) | 0.019 | 16.86  (3.26 – 77.60) | 18.39  (5.69 – 82.85) | 0.016 | 17.49  (5.52 – 81.60) | 21.16  (8.94 – 87.55) | 0.002 |

1. Epinephrine non-responders (n = 20)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Pre-Epinephrine #1 (mean)  (IQR) | Post-Epinephrine #1 (max)  (IQR) | p-value | Pre-Epinephrine #2 (mean)  (IQR) | Post-Epinephrine #2 (max)  (IQR) | p-value | Pre-Vasopressin (mean)  (IQR) | Post-Vasopressin (max)  (IQR) | p-value |
| CoPP | 9.21  (5.98 – 11.83) | 11.33  (8.95 – 15.59) | 0.20 | 9.76  (5.59 – 12.11) | 14.82  (8.90 – 17.47) | <0.001 | 12.79  (7.70 – 15.02) | 18.36  (14.64 – 23.26) | <0.001 |
| MAP | 36.33  (31.77 – 41.35) | 45.23  (38.96 – 47.35) | 0.006 | 40.64  (35.13 – 44.86) | 45.73  (41.00 – 49.46) | <0.001 | 42.35  (38.55 – 46.56) | 49.19  (44.68 – 53.26) | <0.001 |
| Mean PA | 23.01  (19.43 – 27.78) | 27.38  (22.69 – 32.62) | 0.012 | 25.53  (19.93 – 30.97) | 24.85  (22.27 – 32.79) | 0.91 | 23.86  (20.87 – 30.20) | 27.03  (22.24 – 37.31) | <0.01 |
| RAP | 10.19  (7.40 – 12.68) | 10.86  (9.43 – 13.26) | 0.001 | 10.69  (8.63 – 12.62) | 11.43  (10.06 – 14.14) | <0.001 | 10.68  (9.56 – 13.28) | 11.85  (10.42 – 14.67) | <0.001 |
| EtCO2 | 28.11  (22.69 – 30.18) | 27.48  (20.24 – 30.19) | 0.96 | 26.70  (19.56 – 29.42) | 24.59  (19.14 – 30.78) | 0.47 | 24.82  (18.92 – 29.65) | 21.06  (19.64 – 29.37) | 0.41 |
| CBF | 78.82  (55.10 – 283.98) | 131.22  (74.66 – 278.04) | 0.19 | 124.24  (68.40 – 275.05) | 131.14  (69.16 – 274.19) | 0.72 | 117.56  (66.01 – 269.41) | 133.68  (93.23 – 317.24) | 0.055 |
| PbtO2 | 14.37  (5.83 – 80.53) | 12.41  (5.31 – 94.55) | 0.10 | 12.19  (4.43 – 51.24) | 12.18  (5.26 – 89.00) | 0.14 | 11.16  (5.11 – 84.08) | 16.48  (8.52 – 88.94) | 0.034 |