Table 1 Descriptive statistics of changes in haemodynamics by dose of crystalloids and CO response groups.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 mL/kg | | 2 mL/Kg | | 3 mL/Kg | | 4 mL/Kg | |
|  | **Mean ± SD** | **Median (IQR)** | **Mean ± SD** | **Median (IQR)** | **Mean ± SD** | **Median (IQR)** | **Mean ± SD** | **Median (IQR)** |
| ΔPmsf-arm mmHg | 0.6 ± 2.8 | 0.0 (-1.0, 2.0) | 2.7 ± 2.3 | 2.0 (1.0, 4.0) | 2.6 ± 1.9 | 2.0 (2.0, 4.0) | 4.1 ± 2.7 | 4.5 (2.0, 6.0) |
| NR | 0.81 ± 2.7 | 0.0 (-1.0, 2.0) | 2.1 ± 2.2 | 2.0 (0.5, 3.0) | 3.4 ± 1.7 | 3.0 (2.0, 5.0) | 3.6 ± 3.3 | 3.0 (1.0, 7.0) |
| R | -0.5 ± 3.4 | -1.0 (-3.5, 3.0) | 3.7 ± 2.4 | 4.0 (1.0, 6.0) | 1.7 ± 1.8 | 2.0 (0.5, 3.0) | 4.5 ± 2.4 | 5.0 (2.5, 6.0) |
| ΔCO L/min | 0.1 ± 0.5 | 0.1 (-0.1, 0.5) | 0.4 ± 0.4 | 0.4 (0.1, 0.8) | 0.4 ± 0.4 | 0.5 (0.2, 0.8) | 0.7 ± 0.7 | 0.8 (0.2, 1.0) |
| NR | 0.0 ± 0.2 | 0.1 (-0.1, 0.1) | 0.2 ± 0.3 | 0.3 (0.1, 0.4) | 0.2 ± 0.4 | 0.3 (-0.1, 0.5) | 0.0 ± 0.3 | 0.0 (-0.2, 0.2) |
| R | 0.9 ± 0.5 | 0.8 (0.6, 1.4) | 0.8 ± 0.3 | 0.8 (0.6, 1.0) | 0.7 ± 0.2 | 0.8 (0.6, 0.9) | 1.2 ± 0.6 | 1.0 (0.8, 1.2) |
| ΔSV mL | 1.6 ± 4.3 | 0.4 (-1.8, 5.0) | 6.1 ± 5.0 | 4.0 (3.0, 9.0) | 6.7 ± 5.6 | 5.6 (4.0, 11.0) | 11.9 ± 8.3 | 11.0 (4.8, 16.8) |
| NR | 1.2 ± 3.2 | 0.4 (-1.8, 4.8) | 3.4 ± 3.0 | 3.0 (2.0, 4.0) | 4.7 ± 5.6 | 4.0 (3.0, 10.0) | 4.0 ± 4.2 | 3.0 (1.0, 8.0) |
| R | 3.5 ± 7.8 | 3.0 (-3.8, 11.3) | 11.0 ± 4.3 | 10.0 (9.0, 15.0) | 9.1 ± 4.7 | 10.0 (4.0, 12.3) | 16.2 ± 6.6 | 15.0 (11.0, 20.0) |
| ∆HR bpm | 2.3 ± 4.7 | 1.6 (-1.5, 5.1) | -0.8 ± 3.3 | -0.9 (-1.7, 0.7) | -1.1 ± 2.9 | -0.4 (-3.3, 0.9) | -3.4 ± 4.1 | -2.6 (-6.5, -0.7) |
| NR | 0.9 ± 3.6 | 0.0 (-2.2, 3.8) | -0.8 ± 3.2 | -1.3 (-2.3, 0.8) | -1.7 ± 3.2 | -0.4 (-5.0, 0.8) | -4.9 ± 5.5 | -3.0 (-9.8, 0.0) |
| R | 7.9 ± 4.4 | 8.4 (3.7, 11.6) | 0.6 ± 3.6 | 0.0 (-1.7, 0.8) | -0.4 ± 2.4 | -0.3 (-2.5, 2.4) | -2.6 ± 3.1 | -2.6 (-5.1, -0.7) |
| ∆MAP mmHg | 2.3 ± 5.2 | 2.0 (0.0, 5.8) | 5.7 ± 5.6 | 4.0 (2.3, 10.0) | 3.9 ± 4.2 | 3.5 (1.3, 6.0) | 10.1 ± 6.3 | 10.5 (6.3, 12.0) |
| NR | 1.1 ± 4.2 | 1.5 (-1.5, 4.8) | 3.2 ± 3.4 | 3.0 (1.5, 5.5) | 3.5 ± 4.3 | 4.0 (1.0, 5.0) | 7.1 ± 5.7 | 9.0 (1.0, 11.0) |
| R | 7.0 ± 6.5 | 5.5 (1.8, 13.8) | 10.4 ± 6.0 | 10.0 (4.0, 13.0) | 4.3 ± 4.2 | 3.0 (1.0, 8.5) | 11.7 ± 6.3 | 11.0 (6.5, 14.5) |
| ΔCVP mmHg | 0.5 ± 1.0 | 0.0 (0.0, 1.0) | 0.5 ± 1.0 | 1.0 (0.0, 1.0) | 1.3 ± 1.2 | 1.0 (0.3, 2.0) | 2.6 ± 1.7 | 3.0 (1.3, 3.8) |
| NR | 0.3 ± 0.9 | 0.0 (0.0, 1.0) | 0.9 ± 1.3 | 1.0 (0.0, 2.0) | 1.5 ± 1.2 | 1.0 (1.0, 2.0) | 2.3 ± 1.7 | 3.0 (1.0, 3.0) |
| R | 1.3 ± 1.0 | 1.5 (0.3, 2.0) | 0.9 ± 0.7 | 1.0 (0.0, 1.0) | 1.3 ± 1.3 | 1.0 (0.0, 2.0) | 2.7 ± 1.8 | 3.0 (1.5, 4.5) |

SD standard deviation; IQR interquartile (25th – 75th) range; Pmsf-arm mean systemic filling pressure measured with the stop-flow arterial-venous equilibrium method on the arm; CO cardiac output; SV stroke volume; HR heart rate; CVP central venous pressure; MAP mean arterial pressure; R responders according to change in CO greater than 10%; NR non-responders.