**Table 1. Study population and baseline characteristics**

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| **Characteristic** | **Surfactant**  **n=22** | **Control**  **n=22** | ***P* Value** |
| Age (months) | 5.5(±1.6) | 5.3(±1.8) | 0.698 |
| Weight (kg) | 6.2(±1.2) | 6.3(±1.5) | 0.808 |
| Sex (male/female) | 13/9 | 12/10 | 0.585 |
| RACHS-1 II (%) | 7(31.8) | 7(31.8) |  |
| RACHS-1 III (%) | 8(36.3) | 8(36.3) |  |
| RACHS-1 IV (%) | 7(31.8) | 7(31.8) |  |
| Total on-pump time (min) | 146.8(±44.5) | 138.4(±35.8) | 0.382 |
| Aortic clamping time (min) | 57.3(±18.1) | 52.3(±15.2) | 0.326 |
| Time of inclusion (days after operation) | 3.0(±1.6) | 2.9(±1.4) | 0.826 |
| OI | 13.9(±3.8) | 13.2(±3.2) | 0.512 |
| VI | 42.4(±7.6) | 40.6(±8.4) | 0.460 |
| PaO2/FiO2 | 88.5(±15.4) | 90.3(±17.5) | 0.719 |
| PaCO2 | 43.0(±5.8) | 45.8(±7.5) | 0.173 |
| SOFA score | 12.5(±3.1) | 13.2(±2.8) | 0.436 |
| Use of neuromuscular blockers (%) | 12(54.5) | 14(63.6) | 0.106 |
| Vasopressor use (%) | 22(100) | 22(100) |  |
| Body temperature (℃) | 36.5(±0.4) | 36.4(±0.5) | 0.468 |
| Mean arterial pressure (mmHg) | 44.6(±18.4) | 47.2(±15.6) | 0.616 |
| White cell count (109/L) | 13.4(±4.2) | 12.1(±3.8) | 0.288 |
| CRP (mg/L) | 58.6(±20.7) | 49.2(±16.1) | 0.100 |
| Latate(mmol/L) | 1.1(±0.4) | 0.8(±0.3) | 0.013 |
| Creatinine (umol/L) | 64.8(±32.2) | 72.1(±20.5) | 0.375 |
| Clinical pneumonia+ CPB injury (%) | 10(45.5) | 12(54.5) | 0.818 |
| Proved pneumonia (%) | 7(31.8) | 9(40.9) | 0.358 |
| Viral, non-RSV (%) | 2(9) | 3(13.6) | 0.000 |
| RSV (%) | 1(4.5) | 2(9) | 0.000 |
| Bacterial (%) | 3(13.6) | 4(18) | 0.003 |
| CPB injury (%) | 12(54.5) | 10(45.5) | 0.818 |

Surfactant: patients who had ARDS after cardiac surgery received standard treatment plus exogenous surfactant. Abbreviations: RACHS-1, risk adjustment congenital heart surgery-1. CPB, cardiopulmonary bypass. VI, ventilation index was calculated via PaCO2 \* peak inspiratory pressure \* respiratory rate/1000. OI, oxygenation index was calculated via mean airway pressure \* FiO2\*100/PaO2. The data are presented as number (%), mean ± standard deviation.