Supplementary Table S1. Physiological Biomarkers of day 0 and day1 according to the diagnostic groups.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | Adjusted p value |
| Variable | VSD type (n=50) | TOF type (n=75) | TGA type (n=44) | p value | VSD vs. TOF | VSD vs. TGA | TOF vs.TGA |
| Day 0 |  |  |  |  |  |  |  |
| White blood cell (x103/µl) | 9.11±3.3 | 8.22±2.7 | 6.39±2.5 | <0.001 | 0.20 | <0.001 | 0.002 |
| Hemoglobin (g/dL) | 11.9±1.6 | 12.2±2.3 | 15.8±19.8 | 0.12 |  |  |  |
| Hematocrit (%) | 34.6±4.5 | 35.2±6.6 | 36.8±6.7 | 0.21 |  |  |  |
| Platelet (x103/µl) | 218.0±84.3 | 200.6±75.2 | 214.0±81.1 | 0.44 |  |  |  |
| Blood urea nitrogen (mg/dL) | 11.8±4.6 | 9.59±4.8 | 10.9±7.0 | 0.07 |  |  |  |
| Creatinine (mg/dL) | 0.32±0.1 | 0.37±0.1 | 0.49±0.1 | <0.001 | 0.09 | <0.001 | <0.001 |
| PT-INR  | 1.22±0.1 | 1.27±0.1 | 1.41±20.4 | <0.001 | 0.21 | <0.001 | <0.001 |
| APTT (s) | 36.6±8.0 | 41.5±17.9 | 44.1±26.0 | 0.13 |  |  |  |
| pH  | 7.40±0.1 | 7.40±0.1 | 7.41±0.1 | 0.30 |  |  |  |
| pO2 (mmHg) | 120.2±92.1 | 104.6±77.0 | 119.6±79.1 | 0.49 |  |  |  |
| pCO2 (mmHg) | 49.6±10.2 | 45.6±8.2 | 42.8±7.6 | <0.001 | 0.03 | <0.001 | 0.21 |
| Bicarbonate (mmol/L) | 29.8±3.1 | 27.6±2.7 | 27.3±4.6 | <0.001 | <0.001 | 0.001 | 0.93 |
| Lactate (mmol/L) | 1.58±0.6 | 3.06±2.3 | 5.60±2.8 | <0.001 | <0.001 | <0.001 | <0.001 |
| Glucose (mg/dL) | 153.5±41.4 | 175.8±54.8 | 209.5±73.3 | <0.001 | 0.08 | <0.001 | 0.006 |
| Day 1 |  |  |  |  |  |  |  |
| White blood cell (x103/µl) | 10.92±4.0 | 10.81±2.9 | 10.16±4.1 | 0.55 |  |  |  |
| Hemoglobin (g/dL) | 12.0±2.0 | 13.6±2.5 | 13.9±2.8 | <0.001 | 0.001 | <0.001 | 0.76 |
| Hematocrit (%) | 34.8±5.7 | 39.0±6.3 | 39.4±7.8 | <0.001 | 0.002 | 0.002 | 0.94 |
| Platelet (x103/µl) | 201.1±72.9 | 195.8±78.1 | 224.1±75.5 | 0.14 |  |  |  |
| Blood urea nitrogen (mg/dL) | 16.8±6.5 | 14.3±6.8 | 15.4±9.5 | 0.17 |  |  |  |
| Creatinine (mg/dL) | 0.31±0.1 | 0.67±2.6 | 0.52±0.1 | 0.52 |  |  |  |
| PT-INR  | 1.30±0.2 | 1.32±0.2 | 1.31±0.2 | 0.11 |  |  |  |
| APTT (s) | 38.0±20.3 | 35.8±10.0 | 33.1±6.2 | 0.21 |  |  |  |
| pH  | 7.39±0.0 | 7.39±0.1 | 7.43±0.1 | 0.003 | 0.85 | 0.005 | 0.008 |
| pO2 (mmHg) | 115.5±84.6 | 89.7±92.1 | 117.0±69.3 | 0.14 |  |  |  |
| pCO2 (mmHg) | 45.9±6.8 | 43.9±7.4 | 44.7±7.4 | 0.37 |  |  |  |
| Bicarbonate (mmol/L) | 27.6±3.1 | 26.6±3.0 | 29.2±4.0 | <0.001 | 0.30 | 0.05 | <0.001 |
| Lactate (mmol/L) | 1.14±0.6 | 1.96±1.7 | 3.27±2.7 | <0.001 | 0.1 | <0.001 | 0.002 |
| Glucose (mg/dL) | 136.9±67.0 | 147.0±72.9 | 183.2±91.9 | 0.08 |  |  |  |

Continuous variables are expressed as mean ± standard deviation. APTT, activated partial thromboplastin time; pCO2, partial pressure of carbon dioxide; pO2, partial pressure of oxygen; PT-INR, prothrombin time and international normalized ratio; VSD, Ventricular septal defect; TGA, Transposition of the great arteries; TOF, Tetralogy of Fallot.

Supplementary Table S2. Postoperative scores according to the diagnostic groups.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | Adjusted p value |
| Variable | VSD type (n=50) | TOF type (n=75) | TGA type (n=44) | p value | VSD vs. TOF | VSD vs. TGA | TOF vs. TGA |
| Max IS | 0.0 [0.0, 5.0] | 5.0 [0.0, 8.0] | 8.0 [5.0, 10.0] | <0.001 | 0.006 | <0.001 | 0.008 |
| Max VIS | 5.0 [4.8, 7.6] | 9.0 [5.0, 12.5] | 12.2 [10.0, 15.0] | <0.001 | <0.001 | <0.001 | 0.04 |
| Mean VIS | 3.7 [1.1, 5.0] | 6.3 [4.4, 10.0] | 8.1 [5.7, 11.0] | <0.001 | <0.001 | <0.001 | 0.29 |
| PRISM III-0 | 8.5 [4.5, 12.0] | 10.0 [7.0, 15.0] | 12.0 [10.0, 14.0] | <0.001 | 0.02 | <0.001 | 0.12 |
| PRISM III-1 | 5.0 [2.0, 7.0] | 5.0 [2.0, 8.0] | 6.0 [2.0, 8.3] | <0.001 | 0.06 | <0.001 | 0.05 |

Variables are expressed as median [interquartile range]. IS, Inotropic score; PRISMIII, Pediatric risk of mortality III; VIS, Vasoactive-inotropic score; VSD, Ventricular septal defect; TGA, Transposition of the great arteries; TOF, Tetralogy of Fallot.

Supplementary Table S3. Physiological Biomarkers of day 0 and day1 according to the era groups.

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Group A (n=97) | Group B (n=72)  | p value |
| Day 0 |  |  |  |
| White blood cell (x103/µl) | 7.94±2.9 | 8.08±3.2 | 0.76 |
| Hemoglobin (g/dL) | 11.9±2.2 | 14.6±15.5 | 0.09 |
| Hematocrit (%) | 34.2±6.3 | 37.1±5.5 | <0.001 |
| Platelet (x103/µl) | 198.3±75.2 | 224.0±83.1 | 0.04 |
| Blood urea nitrogen (mg/dL) | 10.4±5.2 | 10.9±5.8 | 0.52 |
| Creatinine (mg/dL) | 0.39±0.2 | 0.38±0.1 | 0.87 |
| PT-INR  | 1.33±0.2 | 1.24±0.1 | 0.001 |
| APTT (s) | 41.4±19.9 | 40.0±1.6 | 0.64 |
| pH  | 7.40±0.07 | 7.40±0.08 | 0.61 |
| pO2 (mmHg) | 112.7±77.2 | 113.6±88.9 | 0.94 |
| pCO2 (mmHg) | 46.0±8.2 | 46.1±10.1 | 0.90 |
| Bicarbonate (mmol/L) | 28.1±3.7 | 28.3±3.3 | 0.76 |
| Lactate (mmol/L) | 3.69±2.8 | 2.74±2.2 | 0.02 |
| Glucose (mg/dL) | 187.9±57.6 | 165.0±61.9 | 0.01 |
| Day 1 |  |  |  |
| White blood cell (x103/µl) | 11.13±4.0 | 10.1±2.8 | 0.05 |
| Hemoglobin (g/dL) | 13.0±2.6 | 13.6±2.5 | 0.11 |
| Hematocrit (%) | 37.0±6.7 | 39.1±6.9 | 0.05 |
| Platelet (x103/µl) | 195.6±78.9 | 216.7±71.7 | 0.08 |
| Blood urea nitrogen (mg/dL) | 14.6±6.8 | 16.3±8.4 | 0.16 |
| Creatinine (mg/dL) | 0.63±2.3 | 0.38±0.1 | 0.35 |
| PT-INR  | 1.34±0.2 | 1.27±0.1 | 0.02 |
| APTT (s) | 36.6±15.1 | 34.4±9.8 | 0.29 |
| pH  | 7.40±0.1 | 7.40±0.0 | 0.46 |
| pO2 (mmHg) | 103.6±87.0 | 105.2±82.5 | 0.91 |
| pCO2 (mmHg) | 45.6±8.1 | 43.1±5.7 | 0.02 |
| Bicarbonate (mmol/L) | 28.1±3.6 | 27.0±3.2 | 0.05 |
| Lactate (mmol/L) | 2.6±2.4 | 1.7±1.4 | 0.006 |
| Glucose (mg/dL) | 154.6±82.9 | 161.9±79.6 | 0.68 |

Continuous variables are expressed as mean ± standard deviation. APTT, activated partial thromboplastin time; pCO2, partial pressure of carbon dioxide; pO2, partial pressure of oxygen; PT-INR, prothrombin time and international normalized ratio.

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Supplementary Table S4. Postoperative scores according to the era groups.

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Group A (n=97) | Group B (n=72) | P value |
| Max IS | 5.0 [0.0, 10.0] | 3.0 [0.0, 5.8] | 0.001 |
| Max VIS | 10.0 [5.0, 15.0] | 7.5 [5.0, 10.9] | <0.001 |
| Mean VIS | 6.9 [4.9, 10.6] | 4.9 [2.3, 7.5] | <0.001 |
| PRISM III-0 | 10.0 [6.0, 14.0] | 10.0 [7.0, 13.8] | 0.51 |
| PRISM III-1 | 6.5 [3.0, 11.0] | 7.0 [5.0, 12.0] | 0.09 |

Variables are expressed as median [interquartile range]. IS, Inotropic score; PRISMIII, Pediatric risk of mortality III; VIS, Vasoactive-inotropic score.