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| Table **1** – Baseline clinical characteristics of 55 consecutive patients with severe ARDS supported with and liberated from VV-ECLS, whom developed or not respiratory and hemodynamic complications |
|  | **All patients** **(n. 55)** | **Patients with complications** **(n. 14)** | **Patients without complications****(n. 41)** |  |
| Age, years | 45 (33 – 52) | 47 (39 – 52) | 41 (33 – 52) | 0.25 |
| Gender, male  | 41 (74%) | 11 (78%) | 30 (73%) | 0.96 |
| BMI | 27.2 (23.2 – 33) | 28.4 (23.9 – 34.3) | 26.5 (23 – 33) | 0.34 |
| **Charlson comorbidity index** | **0 (0 – 1)** | **0 (0 – 1)** | **0 (0 – 0)** | **0.02** |
| APACHE II | 29 (28 – 33) | 30 (27 – 33) | 29 (28 – 33) | 0.91 |
| SOFA score | 12 (10 – 13) | 10 (8 – 12) | 12.5 (11 – 14) | 0.05 |
| Cause of ARDS Pulmonary  Extra-pulmonary\*  | 50 (92%)7 (12%) | 13 (93%)3 (22%) | 37 (90%)4 (10%) | 0.85 |
| MV prior to ECLS, days | 3 (2 – 7) | 2 (1.5 – 8) | 4 (2 – 7) | 0.60 |
| **Sweep gas off trial (SGOT), hours** | **22 (15 – 25)** | **24 (23 – 27)** | **20 (12 – 25)** | **0.03** |
| ECLS blood flow during SGOT, L | 3.6 (3.2 – 4.2) | 3.6 (3.2 – 4.0) | 3.7 (3.2 – 4.3) | 0.9 |
| Mechanical ventilation setting last hour of SGOT\*\* | Mode of MV | PSV 34 (62%)PCV 14 (25%)CPAP 4 (7%)APRV 1(2%)NP 1 (2%) | PSV 6 (43%)PCV 5 (32%) CPAP 2 (12%)APRV 0NP 1 (4%) | PSV 28 (68%)PCV 9 (23%)CPAP 3 (7%)APRV 1 (2%)NP 0 | 0.99 |
| **Tidal volume, ml/kg PBW** | **7.1 (6.0 – 9.2)** | **9.2 (6.1 – 9.8)** | **7.1 (6.0 – 8.4)** | **0.02** |
| Respiratory rate, min | 24 (18 – 28) | 26 (18 – 30) | 24 (19 – 26) | 0.41 |
| Minute ventilation, L/min  | 11 (9 – 13) | 12.5 (9.5 – 14) | 10.5 (8 – 13) | 0.18 |
| Corr Min Vent, L/min | 13.3 (11 – 16) | 14.3 (13 – 16.9) | 12.2 (9.2 – 15.4) | 0.08 |
| Ventilatory ratio | 2.4 (2.2 – 2.9) | 2.4 (2.2 – 2.9) | 2.0 (1.4 – 2.7) | 0.07 |
| Mechanical power, J/min  | 19.7 (13 – 22) | 21 (14 – 23) | 16.7 (13 – 20) | 0.39 |
| PEEP, cmH2O | 10 (10 – 10) | 10 (10 – 11) | 10 (10 – 10) | 0.65 |
| Peak Pressure, cmH2O | 23 (20 – 27) | 25 (21.5 – 26) | 23 (19.5 – 27) | 0.87 |
| Driving pressure, cmH2O | 11 (10 – 15) | 12 (11 – 14.5) | 11 (9.5 – 15) | 0.96 |
| PaO2/FiO2 ratio, mmHg | 183 (154 – 238) | 185 (139 – 201) | 183 (162 – 242) | 0.09 |
| SOFA score  | 7 (6 – 8) | 7 (5 – 9) | 7 (6 – 8) | 0.53 |
| MAP | 78 (70 – 90) | 75 (70 – 80) | 83 (70 – 91) | 0.33 |
| **HR**  | **100 (90 – 105)** | **105 (100 – 120)** | **95 (90 – 100)** | **0.01** |
| Weaned from MV | 30 (54%) | 6 (43%) | 24 (58%) | 0.31 |
| Duration of ECLS, days  | 12 (1 – 18) | 12 (10 – 22.8) | 12 (10 – 18) | 0.58 |
| Duration of MV, days  | 18 (14 – 28) | 19 (13 – 36) | 18 (14 – 27) | 0.25 |
| ICU length of stay, days | 21 (15 – 31) | 28 (14 – 36) | 21 (16 – 30) | 0.30 |
| Hospital length of stay  | 27 (17 – 41) | 31 (16 – 45) | 25 (17 – 38) | 0.40 |
| Mortality  | 1 (6%) | 1 (6%) | 0 (0%)  | 0.12 |
| †chi-squared test for difference in proportions, two-sided t test for continuous variables\*Trauma, pancreatitis, intra-abdominal sepsis, subarachnoid hemorrhage\*paramters from last hour on SGOT prior to decannulation from VV-ECLS |



Figure 1 – Tidal volume per predicted body weight (Vt PBW ml/kg) during Sweep gas off trial – 1 hour prior to decannulation from VV-ECLS

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| Table 2 – for tidal volume per predicted body weight (adjusted for ventilator ratio and heart rate) |
|  | Odds ratio | 95% CI | P value |
| Tidal volume PBW | 1.50 | (1.04 – 2.17) | 0.031 |
| Ventilatory ratio | 1.37 | (0.58 – 3.21) | 0.467 |
| Heart rate | 1.05 | (1.00 – 1.11) | 0.023 |