**Table 1:**"Demographic and clinical data of studied groups of RD cases"

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **P value** | **MV** | | **Bubble CPAP** | | **Oxygen** | | **Item** | |
|  | % | NO | % | NO | % | NO |  | **Sex** |
| 0.6 | 60.8%  39.2% | 48  31 | 69.2%  30.8% | 36  16 | 63.1%  36.9% | 94  55 | **Male**  **Female** |
| 0.09 | 48.1%  51.9% | 38  41 | 36.5%  63.5% | 19  33 | 33.6%  66.4% | 50  99 | **Full term ≥ 37 weeks**  **Preterm ≤36 weeks** | **Maturity** |
| 0.001\* | 57%  43% | 45  34 | 75%  25% | 39  13 | 89.9%  10.1% | 134  15 | **Pulmonary**  **Non-pulmonary** | **Cause** |
| 0.001\* | 7.6%  92.4% | 6  73 | 57.69%  42.31% | 31  21 | 77.2%  22.8% | 115  34 | **Improved**  **Died** | **Outcome** |
| - | 28.2% | 79 | 18.6% | 52 | 53.2% | 149 | **Total** | |
| 1. ses (100%) | | | | | |

*NO (%):number and frequency for qualitative date, CPAP:continuous positive air way pressure, MV:mechanical ventilator.*

**Table 2:**"Demographic and clinical data of studied bubble CPAP cases."

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Bubble CPAP success**  **N=30** | **Bubble CPAP failed**  **N=22** | **P-value** |
| **Age (months)** | 3.3±5.4 | 2.1±3.3 | 0.4 |
| **Sex**  Male  Female | 24 (66.7%)  6 (37.5%) | 12 (33.3%)  10 (62.5%) | 0.5 |
| **Birth weight (gm)**  NBW ≥2.5  LBW 1.5-2.4  VLBW 1.1-1.4  ELBW ≤1 | 2.3±0.8  12 (92.3%)  14 (77.8%)  2 (18.2%)  2 (20%) | 1.3±0.5  1 (7.7%)  4 (22.2%)  9 (81.8%)  8 (80%) | 0.001\* |
| **Gestational age (weeks)**  ≥37  30-36  ≤29 | 35.7±0.8  15 (83.3%)  15 (60%)  0 (0%) | 31.3±3.4  3 (16.7%)  10 (40%)  9 (100%) | 0.001\* |
| **Maternal age (years)** | 29.8±6.8 | 25.6±5.3 | 0.02\* |
| **Cause of RD**  Pulmonary  Non pulmonary | 21 (51.2%)  9 (81.8%) | 20 (48.8%)  2 (18.2%) | 0.06 |
| **Pathology**  RDS  Pneumonia  MAS  NS  CHD | 11 (36.7%)  5 (83.3%)  4 (100%)  8 (88.9%)  2 (66.7%) | 19 (63.3%)  1 (16.7%)  0 (0%)  1 (11.1%)  1 (33.3%) | 0.01\* |
| **Length of hospitalization (days)** | 16.6±12.6 | 6.1±4.3 | 0.001\* |

*Independent sample (t) test for analysis of quantitative variables represented by Mean ± SD. Chi – square (x2) for analysis of qualitative data represented by Freq. (%)*

*CPAP: continuous positive air way pressure, BW: birth weight, NBW: normal birth weight, LBW: low birth weight, VLBW: very low birth weight, ELBW: extremely low birth weight. RD: respiratory distress, RDS: respiratory distress syndrome, PN: pneumonia, MAS: meconium aspiration syndrome, NS: neonatal sepsis, CHD: congenital heart disease. \*significant*

**Table 3:** "Analysis of laboratory results of bubble CPAP group of RD cases."

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item** | | **Bubble CPAP success**  **N=30** | **Bubble CPAP failed**  **N=22** | **P-value** |
| **Hb (gm/dl)** | At start  At weaning or failure | 14.6±2.4  12.7±1.6 | 15.2±2  12.4±2.8 | 0.3  0.5 |
| **TLC(ulx103)** | At start  At weaning or failure | 13.2±6.1  10.7±3.4 | 14.1±10.9  13.6±10.8 | 0.7  0.2 |
| **Platelet(ulx103)** | At start  At weaning or failure | 193±92  206±94 | 205±109  142±117 | 0.6  0.03\* |
| **CRP (mg/dl)** | At start  At weaning or failure | 34±40  5±6 | 19±30  40±34 | 0.1  0.001\* |
| **pH** | At start  At weaning or failure | 7.3±0.09  7.38±0.03 | 7.28±0.12  7.28±0.1 | 0.4  0.001\* |
| **SO2** | At start  At weaning or failure | 90.5±13.5  97.3±2.6 | 85.4±11.7  84.1±10.3 | 0.1  0.001\* |
| **PO2** | At start  At weaning or failure | 97.9±38.1  110.7±21.9 | 94.8±42.4  87.1±33.1 | 0.7  0.3 |
| **PCO2** | At start  At weaning or failure | 35.9±11.1  35.4±4.1 | 35.8±15.6  35.3±16.1 | 0.9  0.9 |
| **HCO3** | At start  At weaning or failure | 16.5±5.2  19.6±2.8 | 15.5±6.9  16.5±6.9 | 0.6  0.03\* |

*Independent sample (t) test for analysis of quantitative variables represented by Mean ± SD. Chi – square (x2) for analysis of qualitative data represented by Freq. (%)\*significant. SO2: oxygen saturation, Hb: hemoglobin, TLC: total leucocyte count., CRP: C-reactive protein*