

Table 2: Clinical, Respiratory, and PDA-related Echocardiographic Parameters Before and After Dexamethasone

| Parameter | Before Dexamethasone / Echo 1, N=15 | After Dexamethasone / Echo 2, N=15 | P value |
|--|---|------------------------------------|---------|
| Postnatal age in days, mean (SD) | 18.67 (4.69) | 28.07 (6.49) | NA |
| Corrected Gestational age in weeks, mean (SD) | 27.18 (1.33) | 28.55 (1.45) | NA |
| Days of echo in relation to dex start | 0 ± 0 | 9.40 ± 4.88 | NA |
| Respiratory Support Type | | - | |
| MAP in mmHg, mean (SD) | 12.80(2.46) | 11.75(2.00) | 0.118 |
| PEEP in mmHg, mean (SD) | 10.25(2.42) | 9.23 (1.39) | 0.213 |
| FiO2 in percentage, mean (SD) | 48.67 (16.62) | 39.80 ± 10.80 | 0.061 |
| PDA present, n (%) | 15 (100) | 10 (66.7) | - |
| PDA Size (mm), mean (SD) | 1.57 (0.51) | 1.01(0.78) | 0.010* |
| PDA peak systolic velocity/PDA end-diastolic velocity, mean (SD) | 3.05 (1.05) | 2.61 (1.40) | 0.316 |
| LPA End Diastolic velocity (cm/s), mean (SD) | 40.34 (11.16) | 37.56 (17.79) | 0.759 |

| | | | |
|--|----------------|-----------------|--------|
| LA/AO ratio, mean (SD) | 1.57 (0.23) | 1.59 (0.28) | 0.854 |
| Mitral Inflow A wave in cm/sec, mean (SD) | 75.31 (12.05) | 82.67 (21.12) | 0.245 |
| Mitral Inflow E wave in cm/sec, mean (SD) | 65.97 (12.14) | 76.56 (29.39) | 0.076 |
| Mitral Inflow E:A ratio, mean (SD) | 0.87 (0.14) | 0.89 (0.25) | 0.793 |
| LVO (ml/kg/min), mean (SD) | 301.54 (81.53) | 329.12 (128.48) | 0.343 |
| LVEDD (cm), mean (SD) | 1.36 (0.26) | 1.37 (0.34) | 0.797 |
| IVRT (sec), mean (SD) | 0.04(0.01) | 0.03(0.01) | 0.397 |
| Pulmonary vein S wave (cm/s), mean (SD) | 49.18(8.97) | 41.20 (10.85) | 0.056 |
| Pulmonary Wave D wave in cm/sec, mean (SD) | 46.81 (10.60) | 43.83 (11.28) | 0.515 |
| <u>PDA hemodynamic Significance score, mean (SD)</u> | 9.4 (3.78) | 6.13 (6.19) | 0.021* |

Abb: MAP: Mean Airway Pressure, PEEP: Peak End Expiratory Pressure, FiO₂: Fractional inspired Oxygen, SD: standard deviation, PDA: Patent Ductus Arteriosus, LPA: Left Pulmonary Artery, LA: Left Atrium, Ao: Aortic root, LVO: Left Ventricular Output, LVEDD: Left Ventricular End Diastolic Diameter, IVRT: Isovolumetric Relaxation time