**Table 1S: Comparison Between Patients With and Without RV Pressure Data**

| Demographic and Clinical Data | With RVp Data (N = 315) | No RVp Data (N = 558) | p value |
|---|---|---|---|
| Median age at repair (years) | 0.9 (0 – 57.2) | 4.1 (0 – 45.3) | <0.001 |
| Median age at CMR (years) | 18.1 (0.2 – 71.6) | 27.9 (0.6 – 72.3) | <0.001 |
| Time from repair to CMR (years) | 16 (0 – 49) | 24 (0 – 58) | <0.001 |
| Gender, male | 177 (56%) | 302 (54%) | 0.57 |
| Body surface area (m$^2$) | 1.5±0.5 | 1.8±0.4 | <0.001 |
| Diagnosis | | | <0.001 |
|     Tetralogy of Fallot, pulmonary stenosis | 235 (75%) | 490 (88%) | |
|     Tetralogy of Fallot, pulmonary atresia | 75 (24%) | 56 (10%) | |
|     Tetralogy of Fallot, AV canal | 5 (2%) | 12(2%) | |
| Additional cardiovascular anomaly | 119 (38%) | 204 (37%) | 0.77 |
| Non-cardiac anomalies | 52 (17%) | 145 (26%) | 0.001 |
| Associated genetic disorder | 40 (13%) | 47(8%) | 0.05 |
| Prior palliative shunt | 91 (29%) | 223 (40%) | 0.001 |
| Type of repair | | | <0.001 |
|     Transannular patch | 185 (59%) | 257 (46%) | |
|     RV-to-PA conduit | 67 (21%) | 52(9%) | |
|     Non-transannular patch | 43 (14%) | 93 (17%) | |
|     Infundibular resection & pulmonary valvotomy | 1(<1%) | 50 (9%) | |
|     Infundibular resection alone | 4 (1%) | 25(4%) | |
|     Pulmonary valvotomy alone | 6 (2%) | 22 (4%) | |
|     Other | 9 (3%) | 59 (11%) | |
| Subsequent revision of repair | 114 (36%) | 147 (26%) | 0.003 |
| Pulmonary valve replacement | 168 (53%) | 147 (26%) | <0.001 |
| Other cardiac procedure(s) (e.g., branch PA plasty) | 290 (92%) | 375 (67%) | <0.001 |
| **Arrhythmia Data** | | | |
| QRS duration, ms | 142±29 (76 – 224) | 147±27 (72 – 226) | 0.01 |
| Atrial flutter | 29 (9%) | 31(6%) | 0.05 |
| Atrial fibrillation | 11 (3%) | 26 (5%) | 0.49 |
| Non-sustained ventricular tachycardia | 35 (11%) | 46(8%) | 0.18 |
| Prior ablation | 24 (8%) | 24 (4%) | 0.04 |
| Permanent pacemaker | 6 (2%) | 7(1%) | 0.56 |
| Implantable defibrillator | 20 (6%) | 25 (4%) | 0.26 |
| **Exercise Data** | | | |

| | | | |
|---|---|---|---|
| Peak oxygen consumption (mL/kg/min) | 26 (8 – 53) | 24 (2 – 46) | <0.001 |
| Percent predicted peak oxygen consumption | 70 (24 – 125) | 59 (18 – 160) | <0.001 |
| Ventilatory anaerobic threshold (mL/kg/min) | 15 (6 – 33) | 15 (6 – 44) | 0.89 |
| CMR Data | | | |
| RV end-diastolic volume index (mL/m$^2$) | 160±52 | 147±47 | <0.001 |
| RV end-systolic volume index (mL/m$^2$) | 84±39 | 76±33 | <0.001 |
| RV ejection fraction (%) | 49±10 | 49±8 | 0.53 |
| RV mass index (g/m$^2$) | 42±20 | 32±12 | <0.001 |
| RV mass/volume (g/mL) | 0.28±0.1 | 0.23±0.1 | <0.001 |
| Pulmonary regurgitation (%) | 40±16 | 32±17 | <0.001 |
| LV end-diastolic volume index (mL/m$^2$) | 84±23 | 87±21 | 0.12 |
| LV end-systolic volume index (mL/m$^2$) | 36±16 | 37±14 | 0.59 |
| LV ejection fraction (%) | 58±8 | 58±8 | 0.73 |
| LV mass index (g/m$^2$) | 59±23 | 50±16 | <0.001 |
| LV mass/volume (g/mL) | 0.71±0.2 | 0.59±0.2 | <0.001 |
| RV/LV end-diastolic volume ratio | 2.0±0.7 | 1.8±0.6 | <0.001 |

Data are count (percentage), mean ± SD, or median (range).