**Table S1. Persistent vs. Resolved Aortic Regurgitation on Follow-Up**

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| --- | --- | --- | --- | --- |
|  | **Persistent AR**  **Initial**  n = 26 | **Resolved AR**  **Initial**  n = 10 | **Persistent AR**  **Follow-up**  n = 26 | **Resolved AR**  **Follow-up**  n = 10 |
| **Age (years)** | 14.6  (IQR 12.2 to 15.9) | 15.2  (IQR 13.1 to 15.9) | 16.8  (IQR 15.2 to 18.1) | 17.2 †  (IQR 14.5 to 18.6) |
| **Height (cm)**  **z-score by age & sex** | 165  (IQR 157 to 173)  +0.58, 95%CI +0.20 to +0.98 | 169  (IQR 163 to 176)  +0.68, 95%CI +0.12 to +1.24 | 172  (IQR 165 to 180)  +0.67, 95%CI +0.28 +1.06 | 172 †  (IQR 168 to 182)  +0.66, 95%CI +0.13 to +1.12 |
| **Weight (kg)** | 59.0  (IQR 49.3 to 66.9) | 54.5  (IQR 50.2 to 78.0) | 66.8  (IQR 63.2 to 75.4) | 63.9 †  (IQR 57.1 to 84.2) |
| **BSA (m2)** | 1.64  (IQR 1.44 to 1.82) | 1.60  (IQR 1.50 to 1.95) | 1.79  (IQR 1.72 to 1.94) | 1.75 †  (IQR 1.63 to 2.10) |
| **Body Mass Index (kg/m2)**  **z-score by age & sex** | 21.3  (IQR 20.1 to 22.9)  +0.62, 95%CI +0.28 to +0.96 | 18.8  (IQR 18.3 to 23.2)  +0.34, 95%CI -0.32 to +1.00 | 22.3  (IQR 21.1 to 25.5)  +0.60, 95%CI +0.22 to +0.98 | 20.6  (IQR 20.2 to 24.0)  +0.52, 95%CI -0.15 to +1.19 † |
| **Heart Rate (bpm)** | 72 (IQR 64 to 83) | 78 (IQR 66 to 84) | 68 (IQR 64 to 78) | 78 (IQR 70 to 87) † |
| **Systolic BP (mmHg)**  **z-score by age, height, sex** | 112  (IQR 107 to 123)  +0.45, 95%CI +0.11 to +0.79 | 112  (IQR 105 to 117)  +0.20, 95%CI -0.52 to +0.92 | 119  (IQR 112 to 122)  +0.31, 95%CI -0.06 to +0.68 | 116  (IQR 110 to 123)  +0.14, 95%CI -0.32 to +0.60 † |
| **Diastolic BP (mmHg)**  **z-score by age, height, sex** | 61 (IQR 57 to 69)  -0.11, 95%CI -0.48 to +0.26 | 63 (IQR 61 to 69)  -0.12, 95%CI -0.62 to +0.38 | 64 (IQR 57 to 71)  -0.34, 95%CI -0.66 to  -0.02 | 62 (IQR 57 to 68)  -0.40, 95%CI -0.85 to +0.05 † |
| **Aortic Valve Annulus**  **Diameter (mm)**  **z-score by BSA** | 20 ± 2  +0.29, 95%CI -0.08 to +0.66 | 21 ± 3  +0.56, 95%CI +0.13 to +0.99 | 21 ± 2  +0.28, 95%CI -0.12 to +0.68 | 22 ± 3  +0.55, 95%CI +0.08 to +1.02 † |
| **Aortic Sinus D (mm)**  **z-score by BSA** | 27 ± 3  +0.26, 95%CI -0.02 to +0.54 | 29 ± 3  +0.67, 95%CI +0.11 to +1.23 | 29 ± 3  +0.27, 95%CI -0.07 to +0.55 | 30 ± 4  +0.59, 95%CI +0.08 to +1.10 † |
| **Sinotubular Junction**  **Diameter (mm)**  **z-score by BSA** | 22 ± 2  +0.07, 95%CI -0.08 to +0.50 | 23 ± 3  +0.33, 95%CI -0.22 to +0.88 | 23 ± 2  +0.02, 95%CI -0.28 to +0.32 | 24 ± 3  +0.22, 95%CI -0.31 to +0.75 † |
| **Mid-Ascending Aorta**  **Diameter (mm)**  **z-score by BSA** | 23 ±2  -0.10, 95%CI -0.42 to +0.22 | 25 ± 3  +0.19, 95%CI -0.44 to +0.82 | 25 ± 3  -0.18, 95%CI -0.48 to +0.12 | 25 ± 4  -0.03, 95%CI -0.69 to +0.63 † |
| **Ascending Aorta Peak Velocity (m/s)** | 1.26 ± 0.23 | 1.23 ± 0.19 | 1.18 ± 0.20 | 1.22 ± 0.19 † |
| **Aortic valve strand** | 8 (31%) | 2 (20%) | 7 (27%) | 2 (20%) † |
| **AR Vena Contracta**  **Diameter (mm)**  **Indexed (mm/m)** | 1.1 (IQR 0.8 to 1.5)  0.9 ± 0.3 | 1.0 (IQR 0.6 to 1.2)  0.7 ± 0.3 | 1.0 (IQR 0.9 to 1.2)  0.8 ± 0.2 | 0  0 |
| **Physiologic Mitral Regurgitation** | 10 (38%) | 3 (30%) | 13 (50%) | 1 (10%) **\*** |

AR = aortic regurgitation. Data reported as median (IQR = interquartile range) or mean ± standard deviation, z-scores reported as mean, 95%CI = 95% confidence intervals,**\***p = 0.03 and †p = NS persistent AR group vs. resolved AR group at follow-up.