**Supplemental Table 1:** Multivariable analysis for image quality using selected variables.

|  |  |  |
| --- | --- | --- |
| **Variables** | **Regression Coefficient** | **P-value** |
| Mean HR\* | -0.0238 | <0.0001 |
| HR Variability | -0.0070 | 0.1104 |
| Estimated Dose | -0.0491 | 0.2645 |
| CTDIvol\*\* | 0.0479 | 0.0483 |
| Aorta.SNR\*\*\* | 0.0176 | 0.0011 |
| CNR\*\*\*\* | -0.0040 | 0.0669 |

\*HR = heart rate

\*\*CTDIvol = CT dose index per volume

\*\*\*SNR = signal-to-noise ratio

\*\*\*\*CNR = aortic contrast-to-noise ratio

**Supplemental Table 2:** Study quality vs. anesthesia, sedation, and heart rate control.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Intervention** | | | | | |
| **Study average score** | **Anesthesia**  (n=10) | **Monitoring only**  (n=6) | **No sedation or anesthesia**  (n=28) | **Sedation**  (n=13) | **Β-blockade**  (n=38) | **No heart rate**  **Control**  (n=19) |
| Mean (SD) | 2.62 (0.601) | 3.11 (0.435) | 2.85 (0.601) | 2.90 (0.446) | 2.77 (0.526) | 3.01 (0.592) |
| Median [Min, Max] | 2.81 [1.71, 3.24] | 3.21 [2.43, 3.57] | 2.95 [1.43, 3.67] | 3.00 [2.14, 3.76] | 2.81 [1.62,3.76] | 3.24 [1.43, 3.67] |

**Supplemental Table 3**: Interobserver reliability.

|  |  |  |
| --- | --- | --- |
| **Segment** | **Intraclass Correlation coefficient (95% confidence interval)** | **Segment average quality score (standard deviation)** |
| Proximal RCA\* (1) | 0.722 (0.609, 0.814) | 3.19 (0.75) |
| Mid-RCA (2) | 0.735 (0.625, 0.823) | 2.6 (0.89) |
| LCA\*\* (5) | 0.625 (0.488, 0.742) | 3.52 (0.54) |
| Proximal LAD\*\*\* (6) | 0.633 (0.496, 0.749) | 3.30 (0.64) |
| Mid-LAD (7) | 0.481 (0.322, 0.63) | 2.47 (0.56) |
| Proximal LCx\*\*\*\* (11) | 0.547 (0.396, 0.683) | 2.78 (0.69) |
| Mid-LCx (13) | 0.628 (0.491, 0.746) | 2.02 (0.67) |

\*RCA = right coronary artery

\*\*LCA = left main coronary artery

\*\*\*LAD = left anterior descending artery

\*\*\*\*LCx = left circumflex artery

**Supplemental Figure S1**. Image Quality Scores in Each Coronary Segment

This schematic shows the average image quality score for each coronary segment. RCA=right coronary artery, LCA=left coronary artery, LAD=left anterior descending artery, LCX=left circumflex artery, (1) proximal RCA, (2) mid-RCA, (5) Left main coronary artery, (6) proximal LAD, (7) mid-LAD, (11) proximal LCX, (13) mid-LCX.