|  |  |  |  |
| --- | --- | --- | --- |
| **Image parameters** | | **t** | ***P***adj |
| CT value | CTLM | -5.832 | ＜0.001 |
|  | CTLAD | -4.899 | ＜0.001 |
| CTLCX | -7.736 | ＜0.001 |
| CTRCA-1 | -5.602 | ＜0.001 |
| CTRCA-2 | -6.242 | ＜0.001 |
| CTRCA-3 | -3.479 | 0.002 |
| SD | SDLM | 0.010 | 0.992 |
| SDLAD | 0.230 | 0.821 |
| SDLCX | 1.122 | 0.275 |
| SDRCA-1 | -0.202 | 0.842 |
| SDRCA-2 | 1.023 | 0.319 |
| SDRCA-3 | 0.558 | 0.583 |
| SNR | SNRLM | -4.415 | ＜0.001 |
| SNRLAD | -3.622 | 0.002 |
| SNRLCX | -3.427 | 0.003 |
| SNRRCA-1 | -2.924 | 0.008 |
| SNRRCA-2 | -3.251 | 0.004 |
| SNRRCA-3 | -3.871 | 0.001 |
| CNR | CNRLM | -6.222 | ＜0.001 |
|  | CNRLAD | -5.818 | ＜0.001 |
|  | CNRLCX | -7.225 | ＜0.001 |
| CNRRCA-1 | -5.890 | ＜0.001 |
|  | CNRRCA-2 | -5.689 | ＜0.001 |
| CNRRCA-3 | -4.576 | ＜0.001 |

Supplementary Table 1. Paired *t*-test results between Groups B and C.

*P*adj values are calculated using Bonferroni correction and are used to report the significance of the intergroup comparisons. *P*adj < 0.05 indicates statistical significance after multiple comparison correction.

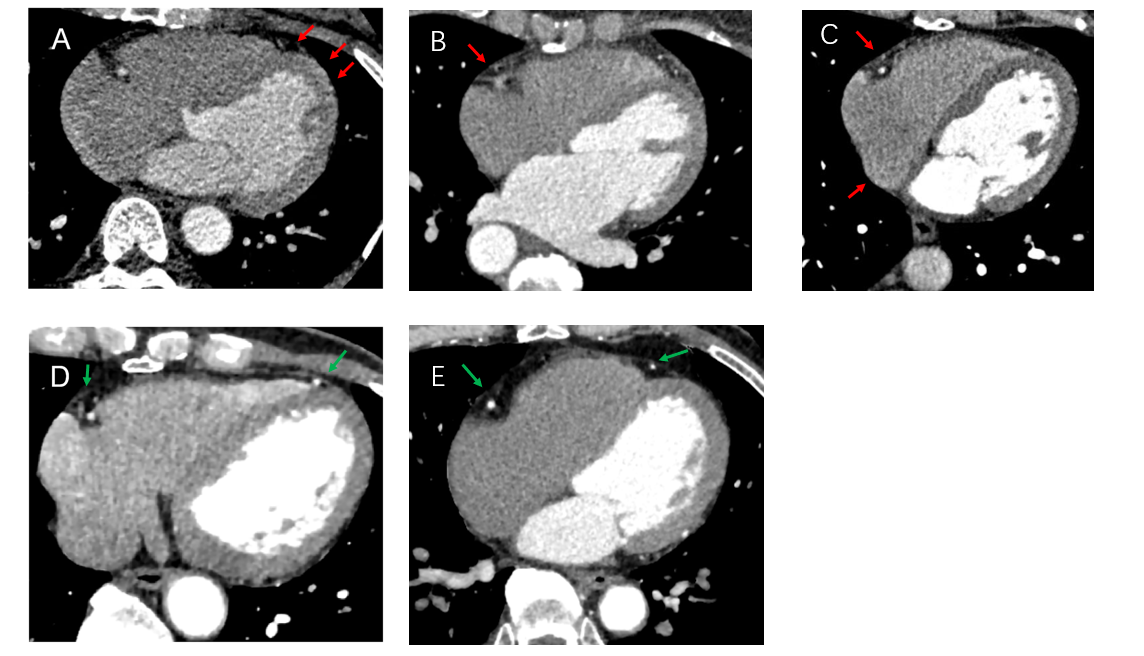
|  |  |  |  |
| --- | --- | --- | --- |
| **Image parameters** | | ***P1*** | ***P2*** |
| CT value | CTLM | 0.001 | 0.002 |
|  | CTLAD | 0.034 | 0.002 |
|  | CTLCX | 0.001 | 0.003 |
|  | CTRCA-1 | 0.002 | 0.003 |
|  | CTRCA-2 | 0.012 | 0.002 |
|  | CTRCA-3 | 0.001 | 0.001 |
| SD | SDLM | 0.323 | 0.299 |
|  | SDLAD | 0.058 | 0.049 |
|  | SDLCX | 0.430 | 0.145 |
|  | SDRCA-1 | 0.921 | 0.892 |
|  | SDRCA-2 | 0.006 | 0.005 |
|  | SDRCA-3 | 0.007 | 0.009 |
| SNR | SNRLM | 0.001 | 0.055 |
|  | SNRLAD | 0.006 | 0.320 |
|  | SNRLCX | 0.004 | 0.329 |
|  | SNRRCA-1 | 0.001 | 0.018 |
|  | SNRRCA-2 | 0.341 | 0.077 |
|  | SNRRCA-3 | 0.873 | 0.036 |
| CNR | CNRLM | 0.001 | 0.856 |
|  | CNRLAD | 0.003 | 0.407 |
|  | CNRLCX | 0.001 | 0.933 |
|  | CNRRCA-1 | 0.001 | 0.741 |
|  | CNRRCA-2 | 0.001 | 0.888 |
|  | CNRRCA-3 | 0.001 | 0.742 |

Supplementary Table 2. Age- and BMI-adjusted *p*-values for comparisons of CT value, SD, SNR, and CNR between Groups A, B, and C.

P1 ：The age and BMI adjusted P-value for the comparison between Group A and Group B.

P2 ：The age and BMI adjusted P-value for the comparison between Group A and Group C.

**Supplementary Fig. 1. Visual Reference for 5-Point Image Quality Scoring System.**

 (A) Score 1: Non-diagnostic due to excessive noise and blurred LAD margins (red arrows). (B) Score 2: Severe noise obscuring RCA (red arrows). (C) Score 3: moderate noise obscuring vascular margins, clear vascular reconstruction, and slightly unclear display of small anatomical structures (red arrows). (D) Score 4: Mild noise but preserved small branch visibility (green arrows). (E) Score 5: Excellent image quality with sharp vascular boundaries (green arrows) and no discernible noise.