SUPPLEMENTARY MATERIAL

**Table 1 of the supplementary material**

Additional Patient Characteristics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Total population (N=78) | Case patients (N=24) | Control patients (n=54) | *P* value |
| GFR (CKD-EPI) (mL/min/1.73m2) | 89.3 ± 19.8 | 90.3 ± 23.0 | 88.9 ± 18.9 | .820 |
|  |  |  |  |  |
| ECG at CT |  |  |  | .107 |
| Sinus rhythm [n (%)] | 67 (86) | 18 (75) | 49 (91) |  |
| Atrial fibrillation [n (%)] | 10 (13) | 5 (21) | 5 (9) |  |
| Pacemaker [n (%)] | 1 (1) | 1 (4) | 0 (0) |  |
|  |  |  |  |  |
| History of any AF [n (%)] | 33 (42) | 6 (24) | 27 (51) | .031 |
|  |  |  |  |  |
| CT platform |  |  |  | .293 |
| Philips [n (%)] | 61 (78) | 17 (71) | 44 (81) |  |
| GE [n (%)] | 17 (22) | 7 (29) | 10 (19) |  |
|  |  |  |  |  |
| CaSc > 0 [n (%)] | 31 (40) | 11 (46) | 20 (37) | .464 |
|  |  |  |  |  |
| Number of ICD leads |  |  |  | .021 |
| 1 lead: Ventricular lead [n (%)] | 29 (37) | 15 (63) | 14 (26) |  |
| 2 leads: Auricular and ventricular leads [n (%)] | 44 (56) | 8 (33) | 36 (67) |  |
| 3 leads: CRT [n (%)] | 4 (5) | 1 (4) | 3 (6) |  |
| 2 ventricular leads (one dysfunctional and abandoned) [n (%)] | 1 (1) | 0 (0) | 1 (2) |  |
|  |  |  |  |  |
| Treatment |  |  |  |  |
| Betablocker [n (%)] | 52 (67) | 18 (75) | 34 (63) | .368 |
| Calcium blocker [n (%)] | 5 (6) | 1 (4) | 4 (7) | .556 |
| Amiodarone [n (%)] | 10 (13) | 3 (13) | 7 (13) | .912 |
| Dronedarone [n (%)] | 1 (1) | 0 (0) | 1 (2) | .495 |
| Disopyramide [n (%)] | 3 (4) | 0 (0) | 3 (6) | .230 |
| Digoxin [n (%)] | 0 (0) | 0 (0) | 0 (0) | n/a |
| Acenocumrol / NOAC [n (%)] | 17 (22) | 5 (21) | 12 (22) | .832 |
| Aspirin / Other antiplatelet / combination [n (%)] | 12 (15) | 4 (17) | 8 (15) | .882 |
| Statin [n (%)] | 22 (28) | 5 (21) | 17 (31) | .289 |
| Sotalol [n (%)] | 4 (5) | 2 (8) | 2 (4) | .413 |
| Diuretic [n (%)] | 9 (12) | 4 (17) | 5 (9) | .372 |
| ACEI/ARB [n (%)] | 9 (12) | 2 (8) | 7 (13) | .522 |
| Spironolactone / Eplerenone [n (%)] | 5 (6) | 3 (13) | 2 (4) | .155 |
| Ranolazine [n (%)] | 3 (4) | 0 (0) | 3 (6) | .230 |
| Ivabradine [n (%)] | 1 (1) | 1 (4) | 0 (0) | .138 |

ACEI, angiotensin converter enzyme inhibitor; AF, atrial fibrillation; ARB, angiotensin II receptor antagonist; CaSc, calcium score; CRT, cardiac resynchronization therapy; CT, computed tomography; ECG, electrocardiogram; GE, General Electric; GFR CKD-EPI, glomerular filtration rate chronic kidney disease epidemiology collaboration; ICD, implantable cardioverter-defibrillator; NOAC, new oral anticoagulant; NYHA, New York Heart Association.

All continuous variables are expressed in mean ± standard deviation or median (interquartile range). All discrete variables are expressed in n (%) or n.

**Table 2 of the supplementary material**

Implantable Cardioverter-defibrillator Therapies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Type of therapy | | | | |
|  | Case patients  (N=24) | Case patients with ICD for secondary prevention  (N=14) | Case patients with ICD for primary prevention  (N=10) | Controls  (N=54) |
| Any appropriate therapy (ATP or ICD) after ICD implantation, n (%) | 18 (75) | 8 (57) | 8 (80) | n/a |
| ATP, n (%) | 10 (42) | 5 (36) | 5 (50) | n/a |
| Shock, n (%) | 12 (50) | 6 (43) | 6 (60) | n/a |
| Inappropriate therapy, n (%) | 4 (17) | 1 (7) | 3 (30) | 4 (7) |
| Time to appropriate ICD therapy | | | | |
|  | Case patients (N=24) | Case patients with ICD in secondary prevention  (N=14) | Case patients with ICD for primary prevention  (N=10) | Controls  (N=54) |
| Time from ICD implantation to ATP (days), median (IQR) | 1141 (503, 1811) | 1068 (475, 1319) | 1635 (382, 2449) | n/a |
| Time from ICD implantation to shock (days), median (IQR) | 468 (244, 1324) | 386 (192, 689) | 771 (422, 1568) | n/a |

ATP, antitachycardia pacing; ICD, implantable cardioverter-defibrillator.

**Table 3 of the supplementary material**

Additional CT Data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | Total population  (N=78) | Case patients  (N=24) | Control patients  (N=54) | P value |
| CT protocol | | | | | |
| Contrast (mL) | 140.9 ± 23.2 | | 146.7 ± 25.8 | 138.4 ± 21.7 | .146 |
| Absorbed dose Dose-length Product (mGy•cm) | 324.1 (274.3-354.1) | | 324.2 (323.6-377.6) | 324.0 (260.3-343.0) | .295 |
| Effective Dose (mSv) | 4.5 (3.8-5.0) | | 4.5 (4.5-5.3) | 4.5 (3.6-4.8) | .295 |
| HR CT (bpm) | 60.0 (55.0-68.3) | | 60.0 (54.3-72.5) | 60.0 (55.0-68.0) | .922 |
| SBP CT (mmHg) | 130.0 (115.0-145.0) | | 133.0 (120.0-149.5) | 125.0 (110.0-141.3) | .113 |
| DBP CT (mmHg) | 80.0 (70.0-85.0) | | 78.0 (71.0-81.5) | 80.0 (70.0-90.0) | .336 |
| Quality and ROI size of septal Wall | | | | | |
| SD myocardium pre (HU) | 9.8 (8.6-11.9) | | 10.6 (9.2-12.7) | 9.6 (8.5-11.8) | .138 |
| Area myocardium pre (cm2) | 4.3 (3.2-5.6) | | 4.5 (3.4-5.7) | 4.3 (3.1-5.7) | .677 |
| SD blood pre (HU) | 10.0 (8.6-12.3) | | 10.8 (9.5-12.2) | 9.8 (8.4-12.3) | .174 |
| Area blood pre (cm2) | 4.1 (3.1-5.6) | | 4.4 (3.2-6.0) | 4.0 (2.9-5.3) | .502 |
| SD myocardium 25 (HU) | 11.1 (9.7-13.8) | | 11.6 (10.6-14.9) | 11.0 (8.8-13.8) | .167 |
| Area myocardium 25 (cm2) | 4.4 (3.5-6.3) | | 4.6 (3.6-5.8) | 4.4 (3.4-6.4) | .961 |
| SD blood 25 (HU) | 11.1 (9.6-13.7) | | 11.5 (10.5-15.5) | 10.9 (9.2-13.0) | .123 |
| Area blood 25 (cm2) | 4.1 (3.2-5.9) | | 4.4 (3.3-6.0) | 4.0 (3.1-5.8) | .475 |

CT, computed tomography; DBP, diastolic blood pressure; HR, heart rate; HU, Hounsfield units; ROI, region of interest; SBP, systolic blood pressure; SD, standard deviation.

**Table 4 of the supplementary material**

Presence of Atrial Fibrillation and Septal Extracellular Volume

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Total  N=78 | AF  N=31 | No AF  N=47 | *P* value |
| ECV septal mean (SD) % | 31.3 (7.9) | 31.3 (8.5) | 31.3 (7.1) | .976 |

AF, atrial fibrillation; ECV, extracellular volumen; SD, standard deviation.

**Table 5 of the supplementary material**

Types of Atrial Fibrillation and Septal Extracellular Volume

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Total  N=78 | Paroxysmal AF  N=22 | PermanentAF  N=9 | No AF  N=47 | *P* value |
| ECV septal mean (SD) % | 31.3 (7.9) | 30.8 (7.2) | 32.7 (7.1) | 31.3 (8.5) | .821 |

AF, atrial fibrillation; ECV, extracellular volumen; SD, standard deviation.