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| Supplementary Table 1. Patients’ type of scheduled intervention and type of heart disease |
|  | Control group | Study group | p value |
|  | n=209 | n=189 |  |
| Transcatheter heart valve interventionAortic valve stenosisMitral valve insufficiencyTricuspid valve insufficiencyMitral valve stenosisAortic valve insufficiency | 483313101 | 493011710 | 0.147 |
| Rhythmological cardiac interventionAtrial fibrillationAtrial flutterOther atrial tachycardiaAVRTAVNRTVES or VTEP study onlyPM or ICD | 724033142118 | 63337006728 | 0.070 |
| Cardiac catheterizationResidual stenosis(Suspected) significant CAD | 893950 | 774334 | 0.122 |
| AVRT, atrioventricular reentrant tachycardia; AVNRT, atrioventricular nodal reentrant tachycardia; VES, ventricular extrasystole; VT, ventricular tachycardia; EP, electrophysiological; PM, pacemaker; ICD, implantable cardioverter defibrillator; CAD, coronary artery disease |

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| Supplementary Table 2. Baseline characteristics of patients undergoing heart valve interventions |
|  | Control group | Study group | p value |
|  | n=48 | n=49 |  |
| Age (years) | 79±8 | 80±7 | 0.750 |
| Male sex | 23 (48) | 19 (39) | 0.364 |
| Height (cm) | 165±10 | 174±7 | **0.034** |
| Weight (kg) | 79±21 | 83±18 | 0.654 |
| Heart rate (bpm)  | 72±14 | 77±16 | 0.310 |
| Blood pressure systolic (mmHg) | 128±22 | 121±15 | 0.452 |
| Blood pressure diastolic (mmHg) | 70±10 | 68±12 | 0.778 |
| Arterial hypertension  | 36 (75) | 23 (79) \* | 0.665 |
| Dyslipidemia | 24 (50) | 9 (31) \* | 0.103 |
| Diabetes mellitus | 12 (25) | 10 (34) \* | 0.372 |
| Family history | 6 (13) | 1 (3) \* | 0.181 |
| Smoker | 6 (13) | 7 (24) \* | 0.187 |
| Obesity | 12 (25) | 6 (21) \* | 0.665 |
| History of TIA/stroke | 3 (6) | 3 (10) \* | 0.667 |
| COPD | 4 (8) | 3 (10) \* | 1.000 |
| OSAS | 2 (4) | 2 (7) \* | 0.629 |
| CKD | 10 (21) | 10 (34) \* | 0.186 |
| Known CAD | 32 (67) | 20 (69) \* | 0.835 |
| Known cardiac arrhythmia | 23 (48) | 18 (62) \* | 0.228 |
| Values are shown as mean ± SD or number (%)bpm, beats per minute; COPD, chronic pulmonary obstructive disease; OSAS, obstructive sleep apnea syndrome; CKD, chronic kidney disease; CAD, coronary artery disease; \* characteristics of 29 patients were assessed |

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| Supplementary Table 3. Clinical characteristics of patients undergoing heart valve interventions at baseline and follow-up |
|  | Control group | Study group | p value |
|  | n=48 | n=49 |  |
| NYHA class* Baseline
* Follow-up
 |  \*\*\*2.4±0.71.5±0.8 | 2.4±0.72.1±1.0 | 0.823**0.002** |
| CCS class* Baseline
* Follow-up
 |  \*\*0.9±1.00.2±0.7 | 0.5±0.90.3±0.9 | 0.1870.607 |
| NT-pro BNP (pg/ml)* Baseline
* Follow-up
 | 1645 [865, 4185]795 [ 548, 2178] |  \*1447 [701, 2293]3307 [2079, 5276] | 0.304**0.018** |
| Troponin T (ng/L)* Baseline
* Follow-up
 | 26±1935±32 | 26±1148±52 | 0.9270.472 |
| LVEF* Baseline
* Follow-up
 |  \*2.0±1.31.8±1.1 | 2.2±1.21.9±1.1 | 0.4910.628 |
| Creatinine (µmol/L)* Baseline
* Follow-up
 | 103±36137±46 | 124±63142±66 | 0.1150.820 |
| Values are shown as mean ± SD or median [IQR] NYHA, New York Heart Association; CCS, Canadian Cardiovascular Society; LVEF, left ventricular ejection fraction; \* *p* < .05 versus baseline; \*\* *p* < .01 versus baseline; \*\*\* *p* < .001 versus baseline. |

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| Supplementary Table 4. Baseline characteristics of patients undergoing cardiac catheterization. |
|  | Control group | Study group | p value |
|  | n=89 | n=77 |  |
| Age (years) | 69±12 | 71±11 | 0.481 |
| Male sex | 69 (78) | 55 (71) | 0.367 |
| Height (cm) | 171±9 | 172±10 | 0.629 |
| Weight (kg) | 83±16 | 88±19 | 0.152 |
| Heart rate (bpm)  | 67±13 | 72±16 | 0.085 |
| Blood pressure systolic (mmHg) | 128±25 | 132±22 | 0.700 |
| Blood pressure diastolic (mmHg) | 83±13 | 76±15 | 0.209 |
| Arterial hypertension  | 72 (81) | 59 (80) \* | 0.852 |
| Dyslipidemia | 75 (84) | 54 (73) \* | 0.077 |
| Diabetes mellitus | 16 (18) | 26 (35) \* | **0.013** |
| Family history | 32 (36) | 12 (16) \* | 0.005 |
| Smoker | 41 (46) | 35 (47) \* | 0.875 |
| Obesity | 21 (24) | 15 (20) \* | 0.610 |
| History of TIA/stroke | 7 (8) | 8 (11) \* | 0.517 |
| COPD | 5 (6) | 6 (8) \* | 0.528 |
| OSAS | 4 (4) | 8 (11) \* | 0.124 |
| CKD | 16 (18) | 11 (15) \* | 0.595 |
| Known CAD | 66 (74) | 69 (93) \* | **0.001** |
| Known cardiac arrhythmia | 32 (36) | 29 (39) \* | 0.671 |
| Values are shown as mean ± SD or number (%)bpm, beats per minute; COPD, chronic pulmonary obstructive disease; OSAS, obstructive sleep apnea syndrome; CKD, chronic kidney disease; CAD, coronary artery disease; \* characteristics of 74 patients were assessed, \*\* characteristics of 51 patients were assessed |

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| Supplementary Table 5. Clinical characteristics of patients undergoing cardiac catheterization at baseline and follow-up |
|  | Control group | Study group | p value |
|  | n=89 | n=77 |  |
| NYHA class* Baseline
* Follow-up
 |  \*\*1.8±0.81.5±0.7 |  \*2.1±0.81.6±0.9 | 0.0670.751 |
| CCS class* Baseline
* Follow-up
 |  \*\* 1.1±1.30.4±1.0  | 1.0±1.20.8±1.2 | 0.739**0.039** |
| NT-pro BNP (pg/ml)* Baseline
* Follow-up
 | 315 [127, 835]305 [154, 704] |  791 [226, 1644]597 [194, 1750] | 0.0170.141 |
| Troponin T (ng/L)* Baseline
* Follow-up
 |  \*15 [9, 27]14 [7, 23] | 23 [11, 44]24 [10, 40] | 0.092**0.004** |
| LVEF* Baseline
* Follow-up
 |  \*\*\* 2.1±1.11.8±1.0 |  \*2.5±1.12.1±1.2 | 0.0660.112 |
| Creatinine (µmol/L)* Baseline
* Follow-up
 | 118±137123±163 | 98±31102±37 | 0.3850.349 |
| Values are shown as mean ± SD or median [IQR] NYHA, New York Heart Association; CCS, Canadian Cardiovascular Society; LVEF, left ventricular ejection fraction; \* *p* < .05 versus baseline; \*\* *p* < .01 versus baseline; \*\*\* *p* < .001 versus baseline. |

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| Supplementary Table 6. Baseline characteristics of patients undergoing electrophysiological cardiac interventions. |
|  | Control group | Study group | p value |
|  | n=72 | n=63 |  |
| Age (years) | 66±15 | 67±12 | 0.602 |
| Male sex | 47 (65) | 39 (62) | 0.684 |
| Height (cm) | 173±10 | 173±7 | 0.974 |
| Weight (kg) | 86±19 | 84±20 | 0.747 |
| Heart rate (bpm)  | 74±20 | 80±17 | 0.126 |
| Blood pressure systolic (mmHg) | 140±3 | 131±19 | 0.323 |
| Blood pressure diastolic (mmHg) | 85±9 | 79±14 | 0.354 |
| Arterial hypertension  | 57 (79) | 39 (75) \* | 0.584 |
| Dyslipidemia | 49 (68) | 34 (67) \*\* | 0.871 |
| Diabetes mellitus | 20 (28) | 10 (20) \*\* | 0.299 |
| Family history | 17 (24) | 10 (20) \*\* | 0.597 |
| Smoker | 28 (39) | 12 (24) \*\* | 0.073 |
| Obesity | 19 (26) | 13 (25) \*\* | 0.911 |
| History of TIA/stroke | 8 (11) | 6 (12) \*\* | 0.910 |
| COPD | 2 (3) | 4 (8) \*\* | 0.231 |
| OSAS | 5 (7) | 1 (2) \* | 0.399 |
| CKD | 10 (14) | 8 (15) \* | 0.816 |
| Known CAD | 40 (56) | 27 (52) \* | 0.689 |
| Known cardiac arrhythmia | 64 (89) | 50 (96) \* | 0.143 |
| Values are shown as mean ± SD as number (%)bpm, beats per minute; COPD, chronic pulmonary obstructive disease; OSAS, obstructive sleep apnea syndrome; CKD, chronic kidney disease; CAD, coronary artery disease; \* characteristics of 52 patients were assessed, \*\* characteristics of 51 patients were assessed |

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| Supplementary Table 7. Clinical characteristics of patients undergoing electrophysiological cardiac interventions at baseline and follow-up |
|  | Control group | Study group | p value |
|  | n=72 | n=63 |  |
| NYHA class* Baseline
* Follow-up
 |  \*1.8±0.81.4±0.7 |  \*1.4±0.61.5±0.7 | **0.003**0.647 |
| CCS class* Baseline
* Follow-up
 |  0.5±1.10.1±0.7 | 0.4±1.00.2±0.7 | 0.6340.145 |
| NT-pro BNP (pg/ml)* Baseline
* Follow-up
 | 1756±34782192±6756 |  1962±32213815±8019 | 0.7910.401 |
| Troponin T (ng/L)* Baseline
* Follow-up
 | 24±4443±114 | 22±1985±276 | 0.8290.480 |
| LVEF* Baseline
* Follow-up
 |  2.3±1.31.8±1.2 | 2.2±1.22.4±1.4 | 0.8350.124 |
| Creatinine (µmol/L)* Baseline
* Follow-up
 | 99±38107±40 | 101±68103±57 | 0.8300.791 |
| Values are shown as mean ± SD or median [IQR] NYHA, New York Heart Association; CCS, Canadian Cardiovascular Society; LVEF, left ventricular ejection fraction; \* *p* < .05 versus baseline; \*\* *p* < .01 versus baseline; \*\*\* *p* < .001 versus baseline. |