## SUPPLEMENTARY TABLES

Supplementary Table 1. Comparison of baseline characteristics between excluded and included patients.

|  | Excluded patients ( $\boldsymbol{N}=33$ ) | Study cohort ( $\boldsymbol{N}=156$ ) | $P$ value |
| :---: | :---: | :---: | :---: |
| Female sex | 21 (63.6\%) | 88 (56.4\%) | 0.445 |
| Age (year) | $82.3 \pm 8.8$ | $80.2 \pm 7.8$ | 0.169 |
| Body mass index, kg/m2 | $23.6 \pm 4.6$ | $24.3 \pm 4.3$ | 0.416 |
| Hypertension | 24 (72.7\%) | 99 (63.5\%) | 0.310 |
| Diabetes mellitus | 13 (39.4\%) | 55 (35.3\%) | 0.653 |
| Hyperlipidemia | 9 (27.3\%) | 41 (26.3\%) | 0.907 |
| Coronary artery disease | 16 (48.5\%) | 63 (40.4\%) | 0.391 |
| Peripheral artery disease | 7 (21.2\%) | 19 (12.2\%) | 0.171 |
| Prior myocardial infarction | 3 (9.1\%) | 4 (2.6\%) | 0.103 |
| Prior stroke or transient ischemic attack | 6 (18.2\%) | 10 (6.4\%) | 0.039 |
| Chronic kidney disease | 14 (42.4\%) | 47 (30.1\%) | 0.170 |
| Chronic lung disease | 1 (3.0\%) | 12 (7.7\%) | 0.336 |
| Permanent pacemaker | 1 (3.0\%) | 7 (4.5\%) | 1.000 |
| EuroSCORE II, \% | $10.4 \pm 10.1$ | $3.9 \pm 3.2$ | $<0.0001$ |
| STS-PROM, \% | $7.8 \pm 4.3$ | $5.1 \pm 3.9$ | 0.0006 |
| NYHA Fc 3/4 | 33 (100\%) | 121 (77.6\%) | 0.001 |
| Echocardiography |  |  |  |
| LVEF, \% | $65.2 \pm 14.1$ | $65.0 \pm 13.0$ | 0.939 |
| Aortic valve area, $\mathrm{cm}^{2}$ | $0.76 \pm 0.21$ | $0.77 \pm 0.18$ | 0.730 |
| Mean pressure gradient, mmHg | $42.2 \pm 22.6$ | $42.6 \pm 17.6$ | 0.918 |

Values are $n(\%)$ or mean $\pm$ SD. Abbreviations: Euroscore: European System for Cardiac Operative Risk Evaluation; STS-PROM: Society of Thoracic Surgeons Predicted Risk of Mortality; NYHA Fc: New York Heart Association functional class; LVEF: left ventricular ejection fraction.

Supplementary Table 2. Baseline characteristics in intermediate-high and low risk group.

|  | Intermediate-high risk $(\boldsymbol{N}=\mathbf{7 5})$ | Low risk $(\boldsymbol{N}=\mathbf{8 1})$ | $\boldsymbol{P}$ value |
| :--- | :---: | :---: | :---: |
| Female sex | $46(61.3 \%)$ | $42(51.9 \%)$ | 0.233 |
| Age (year) | $82.9 \pm 6.8$ | $77.6 \pm 7.8$ | $<0.0001$ |
| Body mass index, $\mathrm{kg} / \mathrm{m} 2$ | $23.3 \pm 3.9$ | $25.3 \pm 4.4$ | 0.0035 |
| Hypertension | $48(64.0 \%)$ | $51(62.9 \%)$ | 0.893 |
| Diabetes mellitus | $34(45.3 \%)$ | $21(25.9 \%)$ | 0.011 |
| Hyperlipidemia | $17(22.7 \%)$ | $24(29.6 \%)$ | 0.324 |
| Coronary artery disease | $37(49.3 \%)$ | $26(32.1 \%)$ | 0.028 |
| Peripheral artery disease | $14(18.7 \%)$ | $5(6.2 \%)$ | 0.017 |
| Prior myocardial infarction | $3(4.0 \%)$ | $1(1.2 \%)$ | 0.352 |
| Prior stroke or transient ischemic attack | $7(9.3 \%)$ | $3(3.7 \%)$ | 0.352 |
| Chronic kidney disease | $37(49.3 \%)$ | $10(12.4 \%)$ | $<0.0001$ |
| Chronic lung disease | $5(6.7 \%)$ | $7(8.6 \%)$ | 0.644 |


| Permanent pacemaker | $4(5.3 \%)$ | $3(3.7 \%)$ | 0.711 |
| :--- | :---: | :---: | :---: |
| EuroSCORE II, \% | $5.6 \pm 3.8$ | $2.4 \pm 1.1$ | $<0.0001$ |
| STS-PROM, \% | $8.1 \pm 3.8$ | $2.4 \pm 0.8$ | $<0.0001$ |
| NYHA Fc 3/4 | $70(93.3 \%)$ | $51(63.0 \%)$ | $<0.0001$ |
| Echocardiography |  |  |  |
| LVEF, \% | $63.3 \pm 15.1$ | $66.7 \pm 10.4$ | 0.126 |
| Aortic valve area, $\mathrm{cm}^{2}$ | $0.75 \pm 0.20$ | $0.79 \pm 0.15$ | 0.176 |
| Mean pressure gradient, mmHg | $42.9 \pm 19.6$ | $42.2 \pm 15.6$ | 0.821 |

Values are $n(\%)$ or mean $\pm$ SD. Abbreviations: Euroscore: European System for Cardiac Operative Risk Evaluation; STS-PROM: Society of Thoracic Surgeons Predicted Risk of Mortality; NYHA Fc: New York Heart Association functional class; LVEF: left ventricular ejection fraction.

## Supplementary Table 3. Comparison of procedural characteristics and clinical outcomes between low and intermediate-high risk groups.

|  | Intermediate-high risk $(\boldsymbol{N}=\mathbf{7 5})$ | Low risk $(\boldsymbol{N}=\mathbf{8 1 )}$ | $\boldsymbol{P}$ Value |
| :--- | :---: | :---: | :---: |
| Trans-femoral Approach | $75(100.0 \%)$ | $81(100.0 \%)$ | 1.000 |
| Valve Type |  |  | 0.059 |
| CoreValve/ Evolute R | $39(52.0 \%)$ | $29(35.8 \%)$ |  |
| Sapien XT/ Sapien 3 | $29(38.7 \%)$ | $46(56.8 \%)$ |  |
| Lotus | $6(8.0 \%)$ | $3(3.7 \%)$ |  |
| Portico | $1(1.3 \%)$ | $3(3.7 \%)$ | 1.000 |
| Need for 2nd Valve | $1(1.3 \%)$ | $2(2.5 \%)$ | 0.801 |
| Total contrast medium used, ml | $170.8 \pm 50.5$ | $168.3 \pm 65.7$ | 0.146 |
| Total procedural time, min | $102.6 \pm 35.8$ | $93.9 \pm 37.8$ |  |
| In-hospital outcome |  |  |  |
| Acute kidney injury | $3(5.4 \%)$ | $12(14.8 \%)$ | 0.000 |
| New LBBB | $29(38.7 \%)$ | $3(3.7 \%)$ | 0.023 |
| New permanent pacemaker | $11(14.7 \%)$ | $1(1.2 \%)$ | 0.358 |
| Vascular complication, major | $3(4.0 \%)$ |  |  |
| Year Clinical outcome, | $2(2.5 \%)$ | 0.155 |  |
| Death | $6(8.0 \%)$ | $0(0.0 \%)$ | 0.481 |
| Cardiovascular Death | $1(1.3 \%)$ | $6(19.8 \%)$ | 0.124 |
| Rehospitalization | $27(36.0 \%)$ | $0(0.0 \%)$ | 0.477 |
| Heart failure rehospitalization | $8(10.7 \%)$ | 0.230 |  |
| Stroke or transient ischemic attack | $2(2.7 \%)$ |  |  |

Values are $n(\%)$, mean $\pm$ SD or median (interquartile range). Abbreviation: LBBB: left bundle branch block.

Supplementary Table 4. Comparison of baseline neurologic and cognitive assessments between low and intermediate-high risk groups.

|  | Intermediate-high risk $(\boldsymbol{N}=\mathbf{7 5})$ | Low risk $(\boldsymbol{N}=\mathbf{8 1})$ | $\boldsymbol{P}$ Value |
| :--- | :---: | :---: | :---: |
| NIHSS |  |  |  |
| Score | $0(0-0)$ | $0(0-0)$ | 0.001 |
| Number of score $>0$ | $16(21.3 \%)$ | $2(2.5 \%)$ | $<0.0001$ |
| Barthel index |  |  |  |
| Score | $100(85-100)$ | $100(100-100)$ | 0.0012 |
| Number of score $<100$ | $28(37.3 \%)$ | $12(14.8 \%)$ | 0.001 |
| MMSE | $25(22-29)$ | $29(25-30)$ | $<0.0001$ |
| Score | $39(52.0 \%)$ | $22(27.2 \%)$ | 0.001 |
| Number of score <26 | $7(3-11)$ | $1(0-7)$ | $<0.0001$ |
| ADAS-cog | $8(6-8)$ | $6(3-8)$ | 0.023 |
| Color Trail Test A (category) | $8(8-8)$ | $8(4-8)$ | 0.121 |
| Color Trail Test B (category) | $24.9 \pm 9.9$ | $30.4 \pm 8.2$ | 0.0002 |
| Verbal fluency |  |  |  |

Values are number (\%), median (interquartile range) or mean (standard deviation) if normally distributed. Abbreviations: NIHSS: National Institutes of Health Stoke Scale; ADAS-cog: Alzheimer Disease Assessment Scale-Cognitive Subtest; MMSE: Mini-Mental State Examination score.

