Is there a benefit of ICD treatment in patients with persistent severely reduced systolic left ventricular function after TAVI?

Clinical Research in Cardiology

- Online Resource 1 -

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Online Resource 1  Baseline characteristics of matched subgroups regarding LVEF > 35% within one year after TAVI

|                          | Matched study collective (n=62) |          |          |          |
|--------------------------|---------------------------------|----------|----------|----------|
|                          | LVEF > 35% after TAVI (n=31)    | LVEF ≤ 35% after TAVI (n=31) | p        |
| Male patients,%          | 54.8                            | 80.6     | 0.039    |
| Age (years); mean±SD     | 78.9±5.9                        | 79.1±7.2 | 0.888    |
| BMI (kg/m²); mean±SD     | 25.7±5.9                        | 25.8±3.7 | 0.399    |
| NYHA III/IV,%            | 90.3                            | 93.5     | 1.000    |
| CAD,%                    | 83.9                            | 77.4     | 0.727    |
| Previous myocardial infarction,% | 48.4                         | 45.2     | 1.000    |
| Previous cardiac surgery,%  |                               |          |          | 0.004    |
| CABG only                | 12.9                            | 51.6     |          |
| SAVR only                | 9.7                             | 32.3     |          |
| CABG and SAVR            | 0.0                             | 6.5      |          |
| CABG and other valve replacement | 0.0                         | 0.0      |          |
| Others                   | 3.2                             | 12.9     |          |
| Arterial hypertension,%  | 87.1                            | 93.5     | 0.687    |
| Diabetes mellitus,%      | 38.7                            | 48.4     | 0.581    |
| Chronic obstructive pulmonary disease,% | 25.8                         | 19.4     | 0.791    |
| Atrial fibrillation,%    | 45.2                            | 67.7     | 0.167    |
| Peripheral artery disease,% | 32.3                         | 19.4     | 0.388    |
| GFR,% ≥ 60 ml/min < 60ml/min dialysis | 35.5                        | 35.5     | n.a.     |
| STS-Score; mean±SD       | 4.9±2.9                         | 4.2±2.7  | 0.262    |
| EuroSCORE II; mean±SD    | 9.3±6.4                         | 12.6±8.8 | 0.035    |
| LVEF (%); mean±SD        | 28.9±14.7                       | 34.7±17.7| 0.147    |
| AAVA (cm²); mean±SD      | 0.65±0.16                       | 0.72±0.18| 0.203    |
| p<40 mmHg; mean±SD       | 32.7±8.9                        | 31.4±15.0| 0.399    |
| p<40 mmHg; mean±SD       | 74.2                            | 80.6     | 0.687    |
| SVI (ml/m²); mean±SD     | 28.5±8.4                        | 28.8±6.6 | 0.866    |
| Preprocedural cardiac device,% | 16.1                         | 38.7     | 0.123    |
| Pacing                   | 9.7                             | 29.0     |          |
| ICD                      | 6.5                             | 9.7      |          |

AVA=aortic valve area; BMI=body mass index; CABG=coronary artery bypass grafting; CAD=coronary artery disease; GFR=glomerular filtration rate; ICD=implantable cardioverter defibrillator; LVEF=left ventricular ejection fraction; NYHA=New York Heart Association; p<40 mmHg=mean aortic pressure gradient; SAVR=surgical aortic valve replacement; SD=standard deviation; STS=Society of Thoracic Surgery; SVI=stroke volume index; TAVI=transcatheter aortic valve implantation