ABSTRACTS
NVVC Voorjaarscongres 2025
Donderdag 10 april
09.00 – 10.30 uur

SESSIE 4: Cardiac surgery & valvular heart disease

	Zaal 11	Voorzitters: dr. Berto Bouma, cardioloog, Amsterdam UMC dr. Laura Kerkmeijer, AIOS Meander MC
1	09.00 - 09.10	**Outcome After Endoscopic Coronary Artery Bypass Grafting Compared to Conventional Bypass Surgery** *Ferdi Akca (Catharina Hospital, Eindhoven)*
2	09.11 - 09.21	**VARC-HBR Criteria Validation in Anticoagulated TAVI Patients** *Christiaan.C. Overduin (St. Antonius Ziekenhuis, Nieuwegein)*
3	09.22 - 09.32	**Validation of the Dutch and Danish Version of the Toronto Aortic Stenosis Quality of Life Questionnaire in Patients Undergoing TAVI: a Pre-Specified POPular PAUSE TAVI Substudy.** *Puck J.A. van Nuland (St. Antonius Hospital, Nieuwegein)*
4	09.33 - 09.43	**Clinical Characteristics and Outcomes of Mitral Regurgitation Patients Stratified by Atrial and Ventricular Dysfunction in the SMILE Registry** *Myrthe J.M. Welman (Maastricht UMC+, CARIM, Maastricht University)*
5	09.44 - 09.54	**Epicardial Fat Increases over Time after Heart and Lung Transplantation** *Britt C.J. van Dijk (Erasmus MC, Rotterdam)*
6	09.55 - 10.05	**Less Symptom Improvement in Patients Undergoing TAVI with Concomitant COPD, Atrial Fibrillation and Heart Failure** *Kees H. van Bergeijk (UMCG, Groningen)*
7	10.06 - 10.16	**1-Year Survival of Frail Patients Similar to the Overall Group after Transcatheter Edge-to-Edge Repair for Mitral Regurgitation** *Abby E. Geerlings (Amsterdam UMC, Amsterdam)*
8	10.17 - 10.27	**Safety of Left Atrial Appendage Amputation During Cardiothoracic Surgery** *Marc M. Terpstra (Amsterdam UMC, Amsterdam)*

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Abstract 1

Outcome After Endoscopic Coronary Artery Bypass Grafting Compared to Conventional Bypass Surgery

Presenting author: F. Akca
Department: Cardiothoracic Surgery

F. Akca (Catharina Hospital, Eindhoven); F. Akca (Catharina Hospital, Eindhoven); D.Q. Görtzen (Catharina Hospital, Eindhoven); F. Sampon (Catharina Hospital, Eindhoven); K. Teeuwen (Catharina Hospital, Eindhoven); P.A.L. Tonino (Catharina Hospital, Eindhoven); J. Ter Woorst (Catharina Hospital, Eindhoven)

Purpose:
This study compared the perioperative outcomes after endoscopic-assisted minimally invasive coronary artery bypass grafting (Endo-CAB) with conventional sternotomy approaches in both single and multivessel coronary artery disease (CAD), performed at the Catharina Hospital in Eindhoven.
Methods:
We included patients between 2022 and 2025 undergoing off-pump Endo-CAB (total n=505) and compared outcomes with conventional sternotomy surgery using propensity score matching (PSM). After PSM 136 Endo-CAB's were compared to 130 sternotomy procedures for single vessel disease (1:1 ratio); and 73 total arterial Endo-CAB's were compared to 137 sternotomy procedures for multivessel disease (1:2 ratio). We used 'textbook outcome' as a patient-orientated outcome measure, defined as the absence of 30-day mortality, re-exploration for bleeding, postoperative ischaemia, cardiac tamponade, cerebrovascular events, wound infection, new onset arrhythmias, pneumonia, placement of chest drains and prolonged hospital stay (>7 days).
Results:
Endo-CAB demonstrated significantly higher rates of textbook outcome in both single-vessel (81.9% vs. 59.6%, p<0.001) and multivessel CAD (78.1% vs. 59.1%, p=0.009) compared to sternotomy. Patients undergoing Endo-CAB had shorter hospital stay (single-vessel: 3.0 vs. 5.0 days, p<0.001; multivessel: 4.0 vs. 6.0 days, p<0.001) and reduced blood loss (single-vessel: 225 vs. 450 mL, p<0.001; multivessel: 360 vs. 490 mL, p<0.001).
Conclusion:
Minimally invasive single-vessel and multivessel Endo-CAB provided superior perioperative outcomes compared to conventional sternotomy bypass surgery. These findings support the broader adoption of minimally invasive techniques in coronary revascularization.

Keywords:
Minimally invasive bypass grafting, Endo-CAB, CABG

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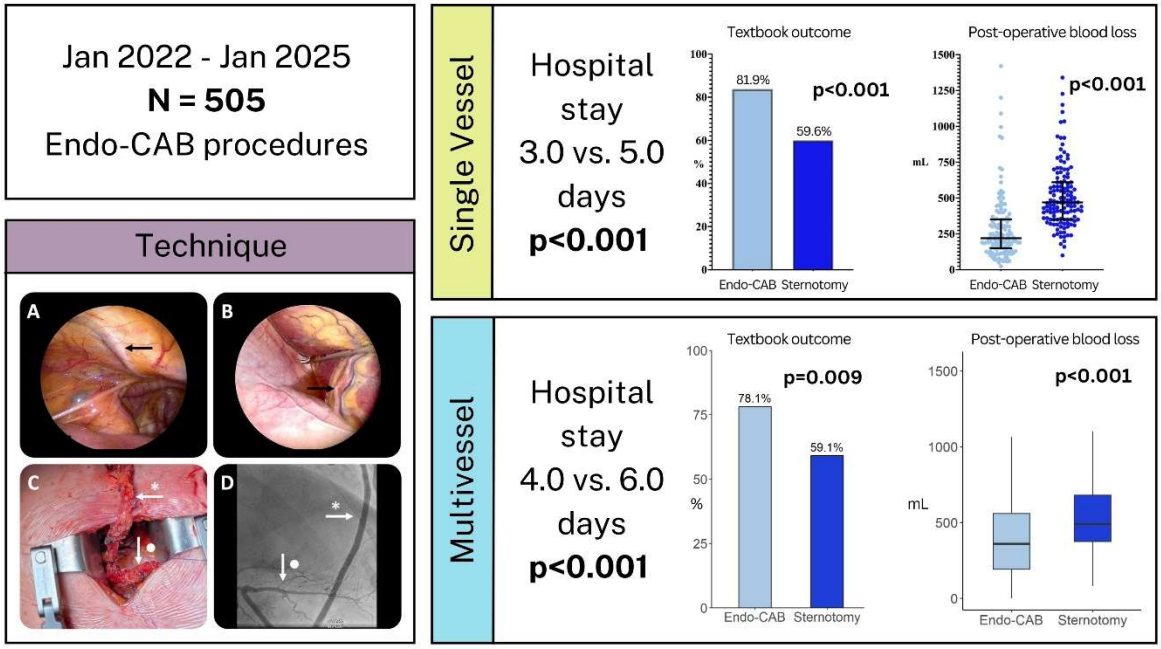
Figure:

Outcome After Endoscopic Coronary Artery Bypass Grafting Compared to Conventional Bypass Surgery

Ferdi Akca, De Qing Görtzen, Fleur Sampon, Koen Teeuwen, Pim Tonino & Joost Ter Woorst



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Abstract 2

VARC-HBR Criteria Validation in Anticoagulated TAVI Patients

Presenting author: D.C. Overduin
Department: Caridology

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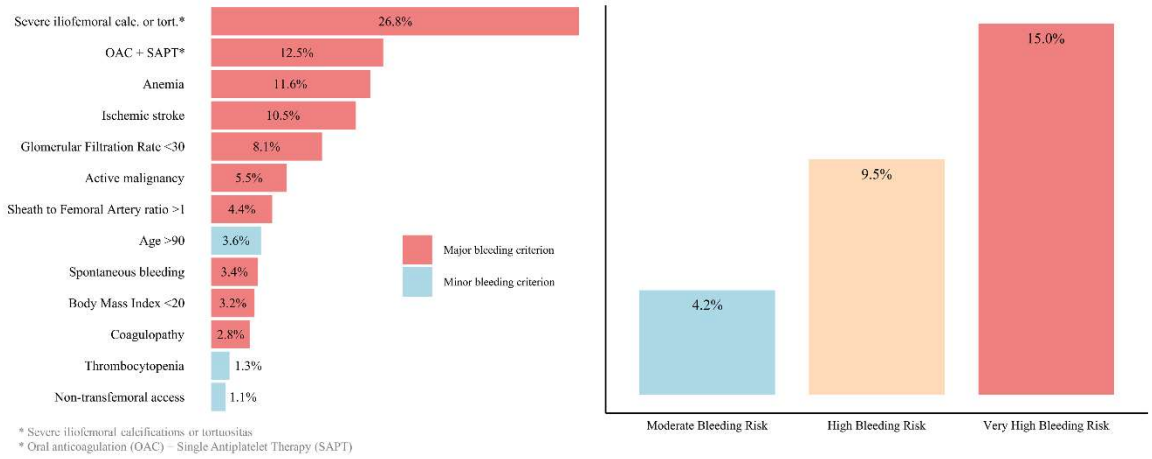
Purpose:
Bleeding remains frequent after transcatheter aortic valve implantation (TAVI). Recently, the Valve Academic Research Consortium High Bleeding Risk (VARC-HBR) criteria were introduced to identify patients at (very) high risk of bleeding. This study aimed to evaluate the validity of the VARC-HBR criteria for predicting bleeding risk in TAVI patients and compare its performance with other existing criteria.
Methods:
Data were obtained from the POPular PAUSE TAVI trial, a randomized clinical trial which evaluated the safety and efficacy of continuation versus interruption of oral anticoagulation during TAVI. Major and minor bleeding risk criteria were identified at baseline, and bleeding events were captured up to 30 days after TAVI. Patients were classified into three groups: with ≤1 minor criterion (moderate risk), with 1 major or 2 minor criteria (high risk), and with ≥2 major or ≥3 minor criteria (very high risk).
Results:
A total of 856 patients were included: 332 (39%) were classified at moderate bleeding risk, 337 (39%) at high bleeding risk, and 187 (22%) at very high bleeding risk. Major bleeding occurred in 4.2% of moderate-risk patients, 9.5% in the high-risk group, and 15.0% in the very high-risk group ($p<0.001$). Receiver operating characteristics analysis showed a moderate discriminative performance (area under the curve = 0.64, 95% CI: 0.58–0.70). Despite higher-than-expected event rates, the VARC-HBR criteria demonstrated good calibration with observed outcomes.

Conclusion:
The VARC-HBR criteria effectively identified distinct subgroups with stepwise increase in major bleeding post-TAVI. However, its predictive performance for individual risk was moderate.

Keywords:
Oral anticoagulation, Bleeding Risk, TAVI

Figure:
Prevalence of VARC-HBR criteria and incidence of major bleeding stratified into three risk groups as defined by the VARC-HBR criteria.



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Abstract 3

Validation of the Dutch and Danish Version of the Toronto Aortic Stenosis Quality of Life Questionnaire in Patients Undergoing TAVI: a Pre-Specified POPular PAUSE TAVI Substudy.

Presenting author: P.J.A. van Nuland
Department: Cardiology

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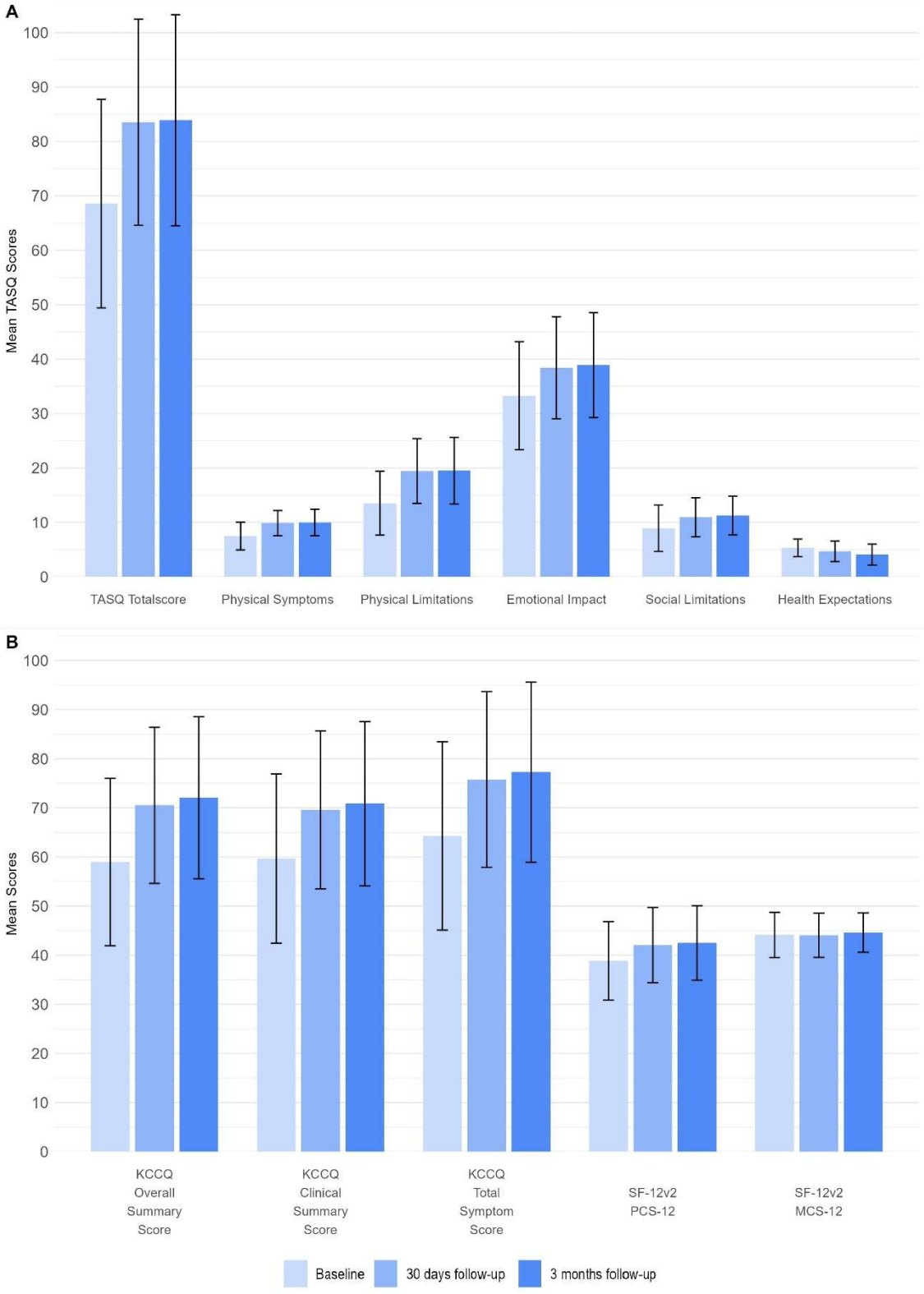
Purpose:
The Toronto Aortic Stenosis Quality of Life Questionnaire (TASQ) was recently developed to assess health-related quality of life in patients with aortic stenosis. This study aimed to validate the Dutch and Danish versions of the TASQ among patients undergoing transcatheter aortic valve implantation (TAVI).
Methods:
This pre-specified POPular PAUSE TAVI substudy was designed as a prospective observational validation study with repeated cross-sectional quality of life measurements. Dutch and Danish translations of the TASQ were obtained before the start of patient enrollment. The Kansas City Cardiomyopathy Questionnaire (KCCQ) was used as reference standard. Questionnaires were completed before TAVI, and at 30 and 90 days follow-up.
Results:
A total of 811 patients were included, 92.0% were Dutch or Belgian and 8.0% were Danish. The response rate was 91.2% before TAVI, 89.6% at 30 days, and 86.8% at 90 days follow-up. The TASQ total score improved significantly from baseline to 30 days (68.7 ±19.1 vs. 83.5 ±18.9; p<0.001) and stabilized at 90 days (83.9 ±19.4; p=0.20), in line with changes observed in the KCCQ summary scores (Figure 1). Internal consistency for the TASQ score was excellent, with Cronbach's α being respectively 0.91, 0.93 and 0.94 over time. The TASQ total score demonstrated high correlation with the KCCQ overall summary score (0.82), indicating good construct validity. Floor and ceiling effects were minimal.
Conclusion:
The Dutch and Danish versions of the TASQ are reliable, valid, and responsive for measurement of health-related quality of life in patients with severe aortic stenosis undergoing TAVI.

Keywords:
Aortic Stenosis, Transcatheter aortic valve implantation (TAVI), Toronto Aortic Stenosis Quality of Life Questionnaire (TASQ)

Figure:
Figure 1. A) TASQ scores during follow-up. B) KCCQ and SF-12v2 scores during follow-up.



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Abstract 4

Clinical Characteristics and Outcomes of Mitral Regurgitation Patients Stratified by Atrial and Ventricular Dysfunction in the SMILE Registry

Presenting author: M.J.M. Welman
Department: Cardiology

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Purpose:
Mitral regurgitation (MR) is often asymptomatic, leading to delayed diagnosis and treatment. The Significant Insufficiency Limburg Evaluation (SMILE) registry, which collects data from all hospitals in Limburg, the Netherlands, was established to evaluate disease progression and identify predictors of successful treatment. This study provides an overview of the clinical characteristics of MR patients classified by atrial and/or ventricular dysfunction, aiming to raise clinical awareness and support personalized treatment strategies.
Methods:
The SMILE registry includes all patients with moderate-to-severe MR. In a recent interim analysis, patients were classified into four groups: isolated MR (n=35), atrial-dysfunctional MR (n=159), ventricular-dysfunctional MR (n=25), and atrial-ventricular-dysfunctional MR (n=25). The classification was based on left atrial volume index (>42 ml/m^3), left ventricular end-diastolic diameter (>53 female mm, >59 mm male), and left ventricular ejection fraction (<45%). Key demographics, echocardiographic parameters, and quality of life outcomes were analyzed.
Results:
No significant differences in physical and mental quality of life were observed across groups. Male patients were most prevalent in the atrial-ventricular-dysfunctional group (68.0%). Primary MR was most common in isolated MR (80%) and least in atrial-ventricular-dysfunctional MR (12.0%). Among patients with one year of follow-up, the atrial-ventricular-dysfunctional group had the highest rate of heart failure hospitalizations (22.2%). This group also had the highest percentage of cases referred to heart team discussion, although mitral valve interventions were more frequent in atrial-dysfunctional MR.
Conclusion:
The SMILE registry highlights diverse MR manifestations. Despite hemodynamic differences, quality of life remains similar across groups. Further follow-up will clarify long-term outcomes and refine patient-specific treatment strategies.

Keywords:
Mitral Regurgitation, Atrial and Ventricular Dysfunction, SMILE Registry

Figure:
Table 1: Clinical Characteristics and Outcomes of Mitral Regurgitation Patients Stratified by Atrial and/or Ventricular Dysfunction. Data is represented as median [p25–p75] or n (%). ERO: Effective Regurgitant Orifice; MI: Mitral Insufficiency; MVP: Mitral Valve Repair; NYHA: New York Heart Association Functional Class; PISA: Proximal Isovelocity Surface Area; sPAP: Systolic Pulmonary Artery Pressure; TEER: Transcatheter Edge-to-Edge Repair; TI: Tricuspid Insufficiency.

	Isolated MI	Atrial dysfunction	Ventricular Dysfunction	Atrial-ventricular dysfunction
Baseline	***n*=35**	***n*=159**	***n*=25**	***n*=25**
Age	71.0 [64.0,78.5]	76 [69.0, 81.0]	73.0 [64.0,80.0]	75.0 [68.0, 78.0]
Male	19 (54.3)	95 (59.7)	15 (60.0)	17 (68.0)
NYHA				
I	24 (68.6)	82 (51.6)	9 (36.0)	9 (36.0)
II	7 (20.0)	59 (37.1)	13 (52.0)	13 (52.0)
III	3 (8.5)	17 (10.7)	3 (12.0)	3 (12.0)
IV	1 (2.9)	1 (0.6)	0 (0.0)	0 (0.0)
Atrial fibrillation	4 (11.4)	53 (33.3)	8 (32.0)	5 (20.0)
Pacemaker rhythm	2 (5.7)	9 (5.7)	3 (12.0)	2 (8.0)
Heart rate	79.0 [70.0, 88.0]	72.0 [63.0, 84.0]	73.0 [64.0, 87.0]	67.5 [58.0, 77.5]
Aetiology				
Primary	28 (80)	99 (62.3)	9 (36.0)	3 (12.0)
Secondary	2 (5.7)	46 (28.9)	14 (56.0)	21 (84.0)
Unknown	5 (14.3)	14 (8.8)	2 (8.0)	1 (4.0)
MI grade				
II	16 (45.7)	50 (31.4)	9 (36.0)	9 (36.0)
III	14 (40.0)	55 (34.6)	8 (32.0)	10 (40.0)
IV	5 (14.3)	54 (34.0)	8 (32.0)	6 (24.0)
ERO	0.24 [0.14, 0.41]	0.26 [0.18, 0.40]	0.22 [0.19, 0.32]	0.22 [0.15, 0.30]
Regurgitation volume	15.0 [11.0, 19.5]	37.20 [24.0, 48.0]	34.15 [31.0, 39.3]	29.8 [27.7, 37.9]
e/a ratio	1.1 [0.8, 1.3]	1.3 [1.1, 1.9]	1.2 [0.8, 1.5]	1.4 [1.1, 2.2]
E wave	89.1 [72.7, 108.0]	102.2 [78.1, 127.3]	92.1 [76.4, 104.0]	93.4 [72.1, 119.0]
Vena contracta	5.0 [4.0, 6.0]	6.0 [5.0, 7.2]	5.4 [3.9, 6.2]	6.2 [6.0, 8.2]
Pisa radius	6.4 [5.0, 8.8]	8.10 [6.8, 11.8]	8.0 [6.5, 9.0]	7.5 [6.2, 9.6]
sPAP	28.0 [25.0, 38.30]	32.6 [26.1, 40.0]	32.7 [25.4, 39.0]	35.0 [28.0, 40.0]
TI				
None	10 (28.6)	43 (27.0)	5 (20.0)	4 (16.0)
Trace	7 (20.0)	22 (13.8)	5 (20.0)	6 (24.0)
Mild	14 (40.0)	56 (35.2)	10 (40.0)	9 (36.0)
Moderate	2 (5.7)	27 (17.0)	3 (12.0)	5 (20.0)
Severe	2 (5.7)	11 (7.0)	2 (8.0)	1 (4.0)
Follow-up 1 year	***n*=12**	***n*=38**	***n*=9**	***n*=9**
Heart failure admission	0 (0.0)	0 (0.0)	0 (0.0)	2 (22.2)
Mortality	0 (0.0)	2 (5.3)	1 (11.1)	0 (0.0)
Heart team discussion	1 (8.3)	9 (23.7)	2 (22.2)	5 (55.6)
TEER	0 (0.0)	1 (2.6)	0 (0.0)	1 (11.1)
MVP	0 (0.0)	7 (18.4)	0 (0.0)	0 (0.0)
Carillon	0 (0.0)	0 (0.0)	0 (0.0)	1 (11.1)

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Abstract 5

Epicardial Fat Increases over Time after Heart and Lung Transplantation

Presenting author: B.C.J. van Dijk
Department: Cardiology

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Purpose:
Epicardial fat (EF) has gained attention as indicator of cardiovascular disease. Post-transplantation immunosuppression is known to increase cardiometabolic risk factors, such as obesity, diabetes and hypertension. It remains unknown whether it also effects the EF amount. We performed a pilot study to measure EF over a one-year period.
Methods:
We included heart (HT) or lung (LT) transplantation patients with CT-scans post-transplant and one year later. Anonymized, randomized scans were assessed for the EF-degree by two independent observers at three pre-defined spots, using a quantitative scale (1[minimal EF present]-4[maximum EF present] per spot; total EF 3-12). EF-differences were calculated. Data on body mass index (BMI), steroid usage and rejection was extracted from the patient database.
Results:
We included 19 HT patients and 137 LT patients, shown in Table 1.
At transplantation, HT patients were younger than LT patients (54[IQR39-61] vs. 60[IQR53-64], p=0.012) and less often female (16% vs. 45%, p=0.023). Rejection episodes and steroid usage in the first year post-transplant did not differ between the groups.
EF increased in HT patients from 4[IQR3-4] to 4[IQR4-5] (p=0.021) and in LT patients from 5[IQR4-6] to 6[5-7] (p<0.001). BMI remained stable in HT patients, but increased in LT patients from 24[IQR21-27] to 25[IQR22-28] (p<0.001).
Higher BMI at follow-up is associated with an EF-increase (OR1.14, 95%CI1.00–1.30, p=0.047).
Conclusion:
This pilot shows the EF-degree increased among thoracic transplant patients over one year, associated with BMI. Targeting EF might be a potential strategy to reduce cardiovascular risks in transplant patients. This will be studied in the DAPARHT-study.

Keywords:
Heart transplantation, Metabolic syndrome, Cardiometabolic risk

Figure:
Table 1: baseline characteristics
[]=IQR, ()=95%CI, BMI = body mass index, CT = computed tomography, EF = epicardial fat, HT = heart transplantation, kg = kilogram, LT = lung transplantation, m = meter, mg = milligram, n = number, p = p-value, Tx = transplantation,

	HT (n=19)			LT (n=137)			p
Age at Tx *years*	54[39-61]			60 [53-64]			**0.012**
Female *n, %*	3 (16)			62 (45)			**0.023**
Patients with rejection episodes in first year *n, %*	6 (32)			62 (45)			0.33
Steroid usage in first year *n, %*	19 (100)			137 (100)			-
CT	**Baseline**	**Follow-up**	**p**	**Baseline**	**Follow-up**	**p**	
Days post-Tx	35 [15-50]	411 (374-448)	-	19 [14-32]	388 [345-437]	-	
Total EF score on CT	4 [3-4]	4 [4-5]	**0.021**	5 [4-6]	6 [5-7]	**<0.001**	
BMI, *kg/m²*	24 (22-26)	24 (22-26)	0.56	24 [21-27]	25 [22-28]	**<0.001**	

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Abstract 6

Less Symptom Improvement in Patients Undergoing TAVI with Concomitant COPD, Atrial Fibrillation and Heart Failure

Presenting author: K.H. van Bergeijk
Department: Cardiology

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W. Ouwerkerk (UVA, Amsterdam); A.F.M. van den Heuvel (UMCG, Groningen); H.W. van der Werf (UMCG, Groningen); Y.L. Douglas (UMCG, Groningen)
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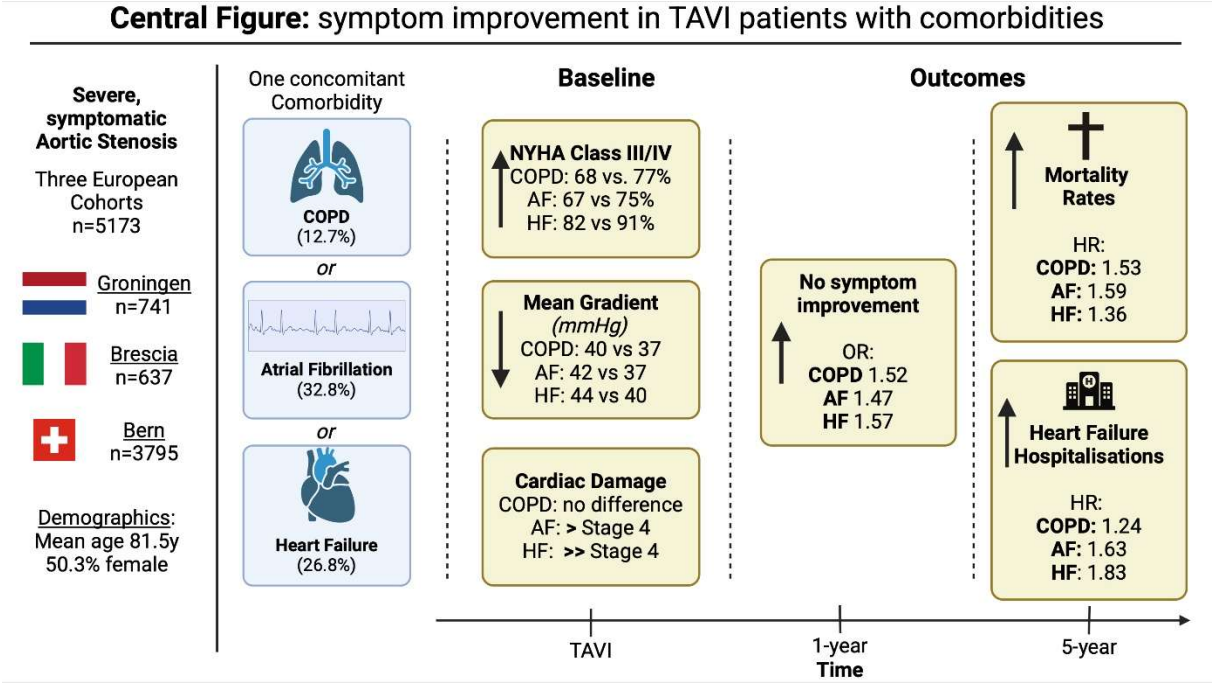
Purpose:
Comorbidities like a history of chronic obstructive pulmonary disease (COPD), atrial fibrillation (AF) and heart failure (HF) can cause similar symptoms as aortic stenosis (AS). However, how they influence symptom improvement and long-term outcomes after transcatheter aortic valve implantation (TAVI) is unclear.
Methods:
A history of COPD, AF and HF were collected in three TAVI cohorts (Groningen, Netherlands, Brescia, Italy and Bern, Switzerland). Symptom improvement was defined as ≥1 improvement of New York Heart Association (NYHA) functional class at 12 months (6 months or 30 days if not available), compared with baseline. Adverse events were defined as cardiovascular mortality, stroke or heart failure hospitalisation at 1 and 5-year follow-up (VARC-3).
Results:
The pooled analysis included 5173 patients (mean age of 81.5 years and 51% female). Patients with COPD, AF or HF were accepted for TAVI at significantly lower mean aortic valve pressure gradients and low-flow, low-gradient AS and higher NYHA class. After adjusting for sex, NYHA class, age, other comorbidities, flow-type and cardiac damage stage before TAVI, a history of COPD (Odds Ratio (OR) 1.75 (95% Confidence interval (CI) 1.11, 2.76), p=0.017) and a history of HF (OR: 1.65 (95% 1.05, 2.60), p=0.031) were associated with lack of symptom improvement, while AF was not (OR: 1.12 (0.71, 1.740, p=0.629). Patients with COPD, AF or HF had higher risks of adverse events and lower survival at long-term follow-up.
Conclusion:
Patients with symptomatic AS and concomitant comorbidities of COPD, AF and HF, undergo TAVI at a lower severity of AS, and have a higher symptomatic burden and higher cardiac damage stage before TAVI. They have a greater risk of residual symptoms, and a higher risk of long-term adverse events.

Keywords:
TAVI, Symptoms, Comorbidities

Figure:
Central Figure, showing main results of this retrospective, cohort study.



ABSTRACTS
NVVC Voorjaarscongres 2025
Donderdag 10 april
09.00 – 10.30 uur

Session 4: Cardiac surgery & valvular heart disease
Abstract 7

1-Year Survival of Frail Patients Similar to the Overall Group after Transcatheter Edge-to-Edge Repair for Mitral Regurgitation

Presenting author: A.E. Geerlings
Department: Cardiology

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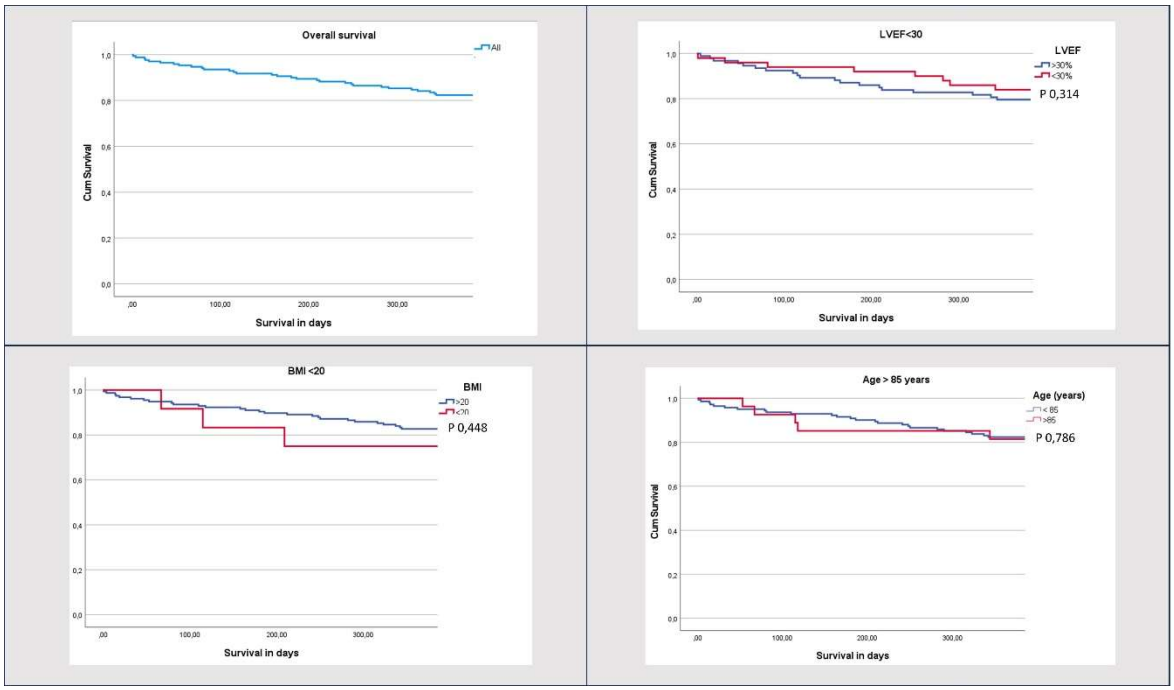
Purpose:
Mitral valve transcatheter edge-to-edge repair (M-TEER) is a well-accepted treatment in patients with severe mitral regurgitation (MR) considered high-risk for conventional surgery. In general the outcome is excellent, but it is unknown whether this is also valid for patients with low body-mass index (BMI), advanced age, or poor left ventricular ejection fraction (LVEF).
Methods:
This retrospective single-center cohort study included all consecutive patients who underwent an M-TEER procedure at the Amsterdam UMC. Patients were classified into three frail groups: (1) BMI < 20 kg/m² (2) Age > 85, and (3) LVEF< 30%. The primary endpoint was defined as all-cause mortality 12 months after M-TEER. Kaplan-Meier curves were used to analyse survival.
Results:
We included a total of 178 patients, 90 (51%) male, mean age 75.7 years, 110 (61%) had secondary MR. A total of 12 (6.7%) had an BMI <20, 27 (15.2%) were >85 years old, 50 (28%) had a LVEF <30%. Overall survival at 12 months was 83% patients (148), for those with the BMI<20 group 75% (9), 84% (42) with a LVEF<30% and 81% (22) with age>85 years, all not significant (Figure 1).
Conclusion:
Our results show that 12-months survival of extreme frail patients undergoing M-TEER does not significantly differ from the overall M-TEER population. Therefore, M-TEER can still be considered in extreme frail patients.

Keywords:
M-TEER, Valvular disease, Mitral valce

Figure:
1-year survival of frail patient groups



ABSTRACTS
NVVC Voorjaarscongres 2025
Donderdag 10 april
09.00 – 10.30 uur

Session 4: Cardiac surgery & valvular heart disease
Abstract 8

Safety of Left Atrial Appendage Amputation During Cardiothoracic Surgery

Presenting author: Marc M. Terpstra
Department: Cardiologie

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Purpose:
Patients with atrial fibrillation (AF) are at risk for ischemic strokes, often originating from the left atrial appendage (LAA). Preventive LAA amputation (LAAA) during cardiac surgery has been shown to reduce ischemic stroke risk, both in patients with and without AF. However, the short-term safety and functional implication of LAAA in non-AF patients remain poorly understood. Besides possible surgical complications, there are suggestions that LAAA could lead to postoperative AF or influence neurohumoral changes resulting in fluid overload. Purpose: To evaluate the safety of LAAA in patients without a history of AF undergoing routine cardiac surgery.
Methods:
Patients underwent elective cardiac surgery between May 5 2015 and April 18 2018 in two high volume centers. Main inclusion criteria were a CHA2DS2-VASc≥ 2 and no history of AF. Patients without a history of AF, that participated in the PREDICT-AF study (NCT03130985) underwent concomitant LAAA and were compared with patients undergoing cardiothoracic surgery who were approached for participation in PREDICT-AF, but declined and did not undergo LAAA. Informed consent for the retrospective use of data was obtained through an opt-out procedure in these patients. The primary outcome of this analysis was the number of patients with any serious adverse event within 30 days postoperatively. Secondary outcomes were AF within 30 days postoperatively, death, rethoracotomy, time on extra corporal circulation (ECC) and heart failure related symptoms assessed through congestion on x-chest and weight trends. Adverse events were independently adjudicated by a cardiothoracic surgeon using pre-specified definitions
Results:
One hundred and fifty patients in PREDICT-AF underwent LAAA. Two hundred and eighty-four eligible patients declined participation in PREDICT-AF and formed the control group. Patients in the LAAA group were more frequently male (87.3% vs 72.5%; p=0.001), were taller (176.0cm ± 8.2 vs 172.6cm ± 9.9; p<0.001) and weighed more (86.1kg [IQR 80.0 - 92.2] vs 81.6kg [IQR 71.9 - 91.1]; p=0.001) compared to controls. There were no significant differences in occurrences of serious adverse events (8% vs 12%; p=0.265), deaths (1.3% vs 1.8%; p=1) or rethoracotomies (3.3% vs 1.8%; p=0.483) between the LAAA and control group. Also, there was no difference in the incidence of postoperative AF (57, 38% vs 90, 31.7%; p=0.225), ECC time (104.5 minutes [IQR 81.0 - 129.0] vs 98.0 [IQR 80.0 - 124.5] p=0.371) or the presence of chest x-ray congestion (26.0% vs 27.8%; p=0.771) between the groups (Figure 1A). The spline plot of Perioperative weight change relative to baseline over time , reveals no notable differences between the two groups (Figure 1B).
Conclusion:
LAAA during routing cardiothoracic surgery is not associated with more surgical

complications, postoperative atrial arrhythmias or heart failure related symptoms. Given the generally high AF risk in patients undergoing cardiothoracic surgery, a strategy to preemptively resect the LAA may be feasible and safe.

Keywords:
Left atrial appendage amputation, Postoperative safety, Cardiac surgery

Figure:
A. Percentage of patients with serious adverse events, death, a rethoracotomy or AF in 30 days after surgery and congestion on postoperative chest x-ray. B. Perioperative weight change (%) relative to baseline over time.