ABSTRACTS
NVVC Najaarscongres 2025
Donderdag 6 november
09.00 – 10.30 uur

SESSIE 4: Coronary heart disease & prevention

	Zaal Athene	Voorzitters: dr. Pim van der Harst, cardioloog UMC Utrecht, dr. Nina van der Hoeven, AIOS cardiologie Amsterdam UMC
1	09.00 - 09.10	**Blood Omega-3 Levels are Inversely Associated with Cardiovascular Events in Different Arterial Territories** *L.W. Bollen (Amsterdam UMC, Amsterdam)*
2	09.11 - 09.21	**One in Three Female Athletes Have Dyslipidemia: Results from the ELITE Cohort** *F.J. van Leusden (Amsterdam UMC, Amsterdam)*
3	09.22 - 09.32	**Trends in Discharge Lipid-Lowering Therapy and LDL-C Levels after Percutaneous Coronary Intervention: A Four-Year Comparison** *D.A.M. Peeters (Radboudumc, Nijmegen)*
4	09.33 - 09.43	**Breaking the Norm: Assessing the Implications of a Dedicated SCAD Clinical Care Pathway** *J. Al-Gully (LUMC, Leiden)*
5	09.44 - 09.54	**1-year Outcomes of Patients with Premature Coronary Artery Disease Undergoing PCI** *S. Janssen (Zuyderland Medical Centre, Heerlen)*
6	09.55 - 10.05	**Ticagrelor versus Clopidogrel alongside DOAC in Patients Requiring Anticoagulation after PCI: Insights from the ReDUAL PCI Real Life Registry-Based Randomized Controlled Trial** *J.J.P. Luijkx (Maastricht UMC+, Maastricht)*
7	10.06 - 10.16	**Comprehensive Analysis of Medical and Invasive Treatment Strategies for Patients with Significant Left Anterior Descending Artery Disease (COMMIT LAD)** *C.Snik (Maastricht UMC+, Maastricht)*
8	10.17 - 10.27	**Relationship between Myocardial Bridging and Coronary Vasospasm** *N.L. Lupgens (Amsterdam UMC, Amsterdam)*

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Abstract 1

Blood Omega-3 Levels are Inversely Associated with Cardiovascular Events in Different Arterial Territories

Presenting author: L.W. Bollen
Department: Cardiology

L.W. Bollen (Amsterdam UMC, Amsterdam); L.W. Bollen (Amsterdam UMC, Amsterdam); E.L. Gaillard (Amsterdam UMC, Amsterdam); M. van den Bogaart (Amsterdam UMC, Amsterdam); E.S.G. Stroes (Amsterdam UMC, Amsterdam); J. Kroon (Amsterdam UMC, Amsterdam); M. Snaterse (Amsterdam UMC, Amsterdam); F.M.A.C. Martens (Amsterdam UMC, Amsterdam); S.M. Boekholdt (Amsterdam UMC, Amsterdam); H.T. Jørstad (Amsterdam UMC, Amsterdam)

Purpose:
Blood omega-3 fatty acids levels, i.e. eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), have been linked to fatal cardiovascular disease (CVD), but associations with territory-specific and non-fatal CVD events are unclear. We therefore assessed the relationship between blood EPA and DHA levels and territory-specific total and non-fatal CVD events.
Methods:
We included EPIC-Norfolk participants without baseline CVD and available EPA and DHA plasma levels (i.e. the sum of plasma EPA and DHA as mol% of total fatty acids). EPIC-Norfolk included individuals aged 45-79 years between 1993 and 1997 in Norfolk (UK). The endpoint of interest was first hospitalization or death due to ischemic heart disease (IHD), stroke, peripheral artery disease (PAD) or aortic aneurysm (AA). Follow-up data was available until March, 2024. Cox regression models were used to calculate hazard ratios (HRs) (95% confidence intervals [CIs]), comparing extreme quintiles of EPA+DHA levels; EPA and DHA quintiles were also analyzed separately. Models were adjusted for age, sex, ethnicity, physical activity, smoking, LDL-C, systolic blood pressure, BMI, diabetes status and omega-6 fatty acid levels.
Results:
In 6,464 individuals (52% women, mean age 63 years [SD 8]) with a median follow-up of 22.1 years (IQR 13.3–27.8), 2981 (46%) CVD events occurred. IHD was most common (25%), followed by stroke (15%), PAD (4%) and AA (2%). Participants in the highest EPA+DHA quintile had lower risk of CVD (HR 0.89, 95% CI 0.78–1.02), especially for fatal events (HR 0.69 95% CI 0.56 – 0.85). Specifically, EPA+DHA showed protective effects on fatal IHD (HR 0.71, 95% CI 0.53 – 0.96) and fatal stroke (HR 0.66, 95% CI 0.47 – 0.93). When analyzed separately, DHA alone showed stronger associations with total CVD events compared to EPA (HR 0.86, 95% CI 0.76–0.97 and HR 0.97, 95% CI 0.84–1.13, respectively) (Figure).
Conclusion:
In apparently healthy individuals, blood EPA and DHA levels are inversely associated with CVD. These associations are stronger for fatal IHD and stroke events, but consistent across all arterial territories. This underscores EPA and DHA as key players in multi-territorial CVD.

Keywords:
Risk factors, DHA, EPA

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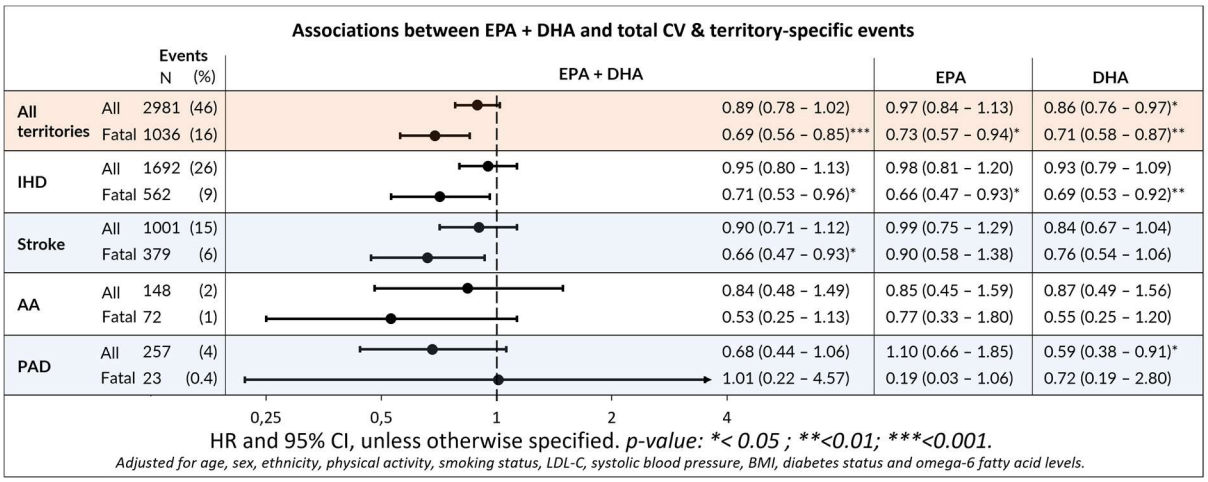
Figure:
Abbreviations:
IHD: Ischemic Heart Disease. PAD: Peripheral Artery Disease. AA: Aortic Aneurysm.



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Abstract 2

One in Three Female Athletes Have Dyslipidemia: Results from the ELITE Cohort

Presenting author: F.J. van Leusden
Department: Cardiology

F.J. van Leusden (Amsterdam UMC, Amsterdam); F.J. van Leusden (Amsterdam UMC, Amsterdam); H. El Hri (Amsterdam UMC, Amsterdam); M.A. van Diepen (Amsterdam UMC, Amsterdam); J.J. Daems (Amsterdam UMC, Amsterdam); M. van den Bogaart (Amsterdam UMC, Amsterdam); L.W. Bollen (Amsterdam UMC, Amsterdam); M. Snaterse-Zuidam (Amsterdam UMC, Amsterdam); F.M.A.C Martens (Amsterdam UMC, Amsterdam); N.R. Bijsterveld (Amsterdam UMC, Amsterdam); H.T. Jorstad (Amsterdam UMC, Amsterdam)

Purpose:
Elite athletes are often considered at low risk for atherosclerotic cardiovascular disease (ASCVD). Paradoxically, a higher prevalence of coronary ASCVD has been reported in master athletes. Currently, it is unclear whether this mechanism is primarily driven by exercise-related factors or under-recognition of traditional risk factors, whereof dyslipidemia plays an important role. We therefore investigated the prevalence of dyslipidemia in our elite athlete cohort stratified by sex.
Methods:
Cross-sectional analysis of non-fasting total cholesterol (TC), low density lipoprotein cholesterol (LDL-C), non-high-density lipoprotein (non-HDL) and lipoprotein (a) (Lp(a)) collected from cardiac screenings of elite athletes (>16years, competing at (inter)national or Olympic level) included in the prospective cohort study Evaluation of Lifetime participation in Intensive Top-level sports and Exercise (ELITE). Dyslipidemia was assessed as composite outcome of elevated TC(>5 mmol/L), LDL-C(>3 mmol/L), non-HDL(>3.4 mmol/L) or Lp(a)(>125 nmol/L), according to Dutch Guidelines.
Results:
Overall, 126 of 439 (29%) included athletes (43% female athletes, age 24[21-28] years) had dyslipidemia. In 79(18%) athletes TC was elevated, LDL-C in 61(14%), non-HDL in 65(15%) and Lp(a) in 37/273 (14%). Female athletes more often had dyslipidemia than their male counterparts (35% versus 24%, p=0.020). Also, female athletes had a higher prevalence of elevated Lp(a) (20% versus 9.6%, p=0.03), had higher TC (4.3 [3.8-4.9] versus 4.0 [3.5-4.6] mmol/L, p<0.001) and had a tendency towards higher LDL-C (2.2 [1.8-2.6] versus 2.1 [1.7-2.6] mmol/L, p=0.09).
Conclusion:
Dyslipidemia affects approximately one in three elite athletes, with a less favorable lipid profile observed in women. Longitudinal studies are needed to investigate the role of dyslipidemia on future ASCVD and whether sex-specific early primary prevention strategies are warranted in this presumed healthy population.

Keywords:
Sports cardiology, Primary prevention, Dyslipidemia

Figure:
Athlete characteristics

Athlete characteristic	Total (N=439)	Women (n=190)	Men (n=249)	p-value
Age (in years)	24 [21-28]	25 [22-29]	23 [20-28]	<0.001
Ethnicity				<0.001
Caucasian.	410 (94%)	184 (97%)	226 (91%)	
Other	28 (6%)	5 (3%)	23 (9%)	
History of cardiovascular disease	13 (3%)	6 (3.5%)	7 (3.2%)	0.6
Body mass index (BMI) (kg/m²)	22.6 [21-24]	22.1 [20.7-23.3]	23.2 [21.3-24.6]	<0.001
Relative Maximal oxygen uptake (ml/min/kg)	55 [46-55]	47 [44-57]	63 [52-71]	<0.001
ESC Sport Category				0.004
Mixed	192 (44%)	76 (40%)	116 (47%)	
Endurance	196 (45%)	80 (42%)	116 (47%)	
Power	31 (7%)	22 (12%)	9 (4%)	
Skill	20 (5%)	12 (6%)	8 (3%)	
Weekly sports (in hours)	19 [18-25]	18 [18-20]	19 [18-25]	0.004
Total cholesterol (mmol/L)	4.2 [3.7-4.7]	4.3 [3.8-4.9]	4 [3.5-4.6]	<0.001
LDL-C (mmol/L)	2.2 [1.8-2.6]	2.2 [1.8-2.6]	2.2 [1.8-2.6]	0.09
Non-HDL-C (mmol/L)	2.5 [2.1-3]	2.6 [2.1-3]	2.6 [2.1-3]	0.7
Lipoprotein (a) (nmol/L)	15 [7-57]	16 [7-86]	14 [7-56]	0.4

n (%); Median [IQR]
Abbreviations: ESC = European Society of Cardiology

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Abstract 3

Trends in Discharge Lipid-Lowering Therapy and LDL-C Levels after Percutaneous Coronary Intervention: A Four-Year Comparison

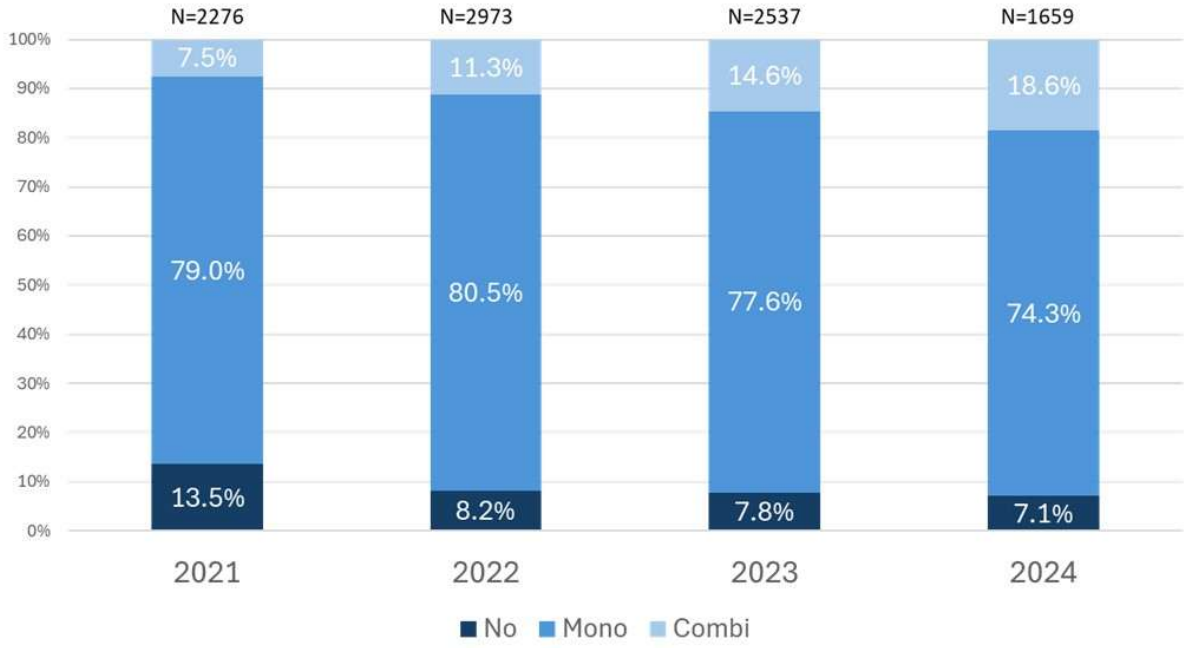
Presenting author: D.A.M. Peeters
Department: Cardiolology

D.A.M. Peeters (Radboudumc, Nijmegen); D.A.M. Peeters (RadboudUMC, Nijmegen); S. Janssen (Zuyderland Medical Centre, Heerlen); E.C.I. Woelders (RadboudUMC, Nijmegen); P. Damman (RadboudUMC, Nijmegen); P.J.C. Winkler (Zuyderland Medical Centre, Heerlen); J.J.P. Luijkx (Zuyderland Medical Centre, Heerlen); W.S. Remkes (VieCuri Medical Centre, Venlo); A.W.J. van 't Hof (Maastricht UMC, Maastricht); R.J.M. van Geuns (RadboudUMC, Nijmegen)

Purpose:
Patients who underwent percutaneous coronary intervention (PCI) have a target LDL-C <1.4 mmol/L. However, previous studies showed sub-optimal use of lipid lowering therapy (LLT). To investigate the gap between guidelines and real-world practice and to provide feedback on quality of care, trends in cholesterol management over the years were examined using data from the South-east Netherlands Heart Registry (ZON-HR).
Methods:
ZON-HR is an ongoing, multicentre PCI registry. Patients included between 2021 and 2024 with known discharge medication were divided into three groups; No LLT, mono LLT or combination LLT. Those groups were compared between the four years with Chi-square test. A sub analysis in patients with known LDL-C at 30-90 days after PCI was performed where LDL-C values between the years were compared with ANOVA.
Results:
Discharge medication was known in 9445 patients. The mean age was 68, 73% were male and the mean LDL-C value was 2.68 ± 1.10 mmol/L. A decrease was observed in patients without LLT, where in 2021 13.5% of the patients were receiving no LLT compared to 7.1% in 2024 ($p<0.001$). Combination therapy increased over time, starting at 7.5% in 2021 and 18.6% in 2024 ($p<0.001$). LDL-C at 30 days was known in 1839 patients. A lower mean LDL-C value from 1.99 in 2021 to 1.67 in 2024 was measured ($p<0.001$).
Conclusion:
While no additional protocol for cholesterol management was implemented in this period, an improvement over time was observed. However, implementation of personalized medicine based on patients' LDL-C is still needed to further improve target attainment.

Keywords:
Low density lipoprotein-Cholesterol, Percutaneous coronary intervention, Secondary prevention

Figure:
Type of Lipid Lowering Therapy across Different Years



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Abstract 4

Breaking the Norm: Assessing the Implications of a Dedicated SCAD Clinical Care Pathway

Presenting author: J. Al-Gully
Department: Cardiology

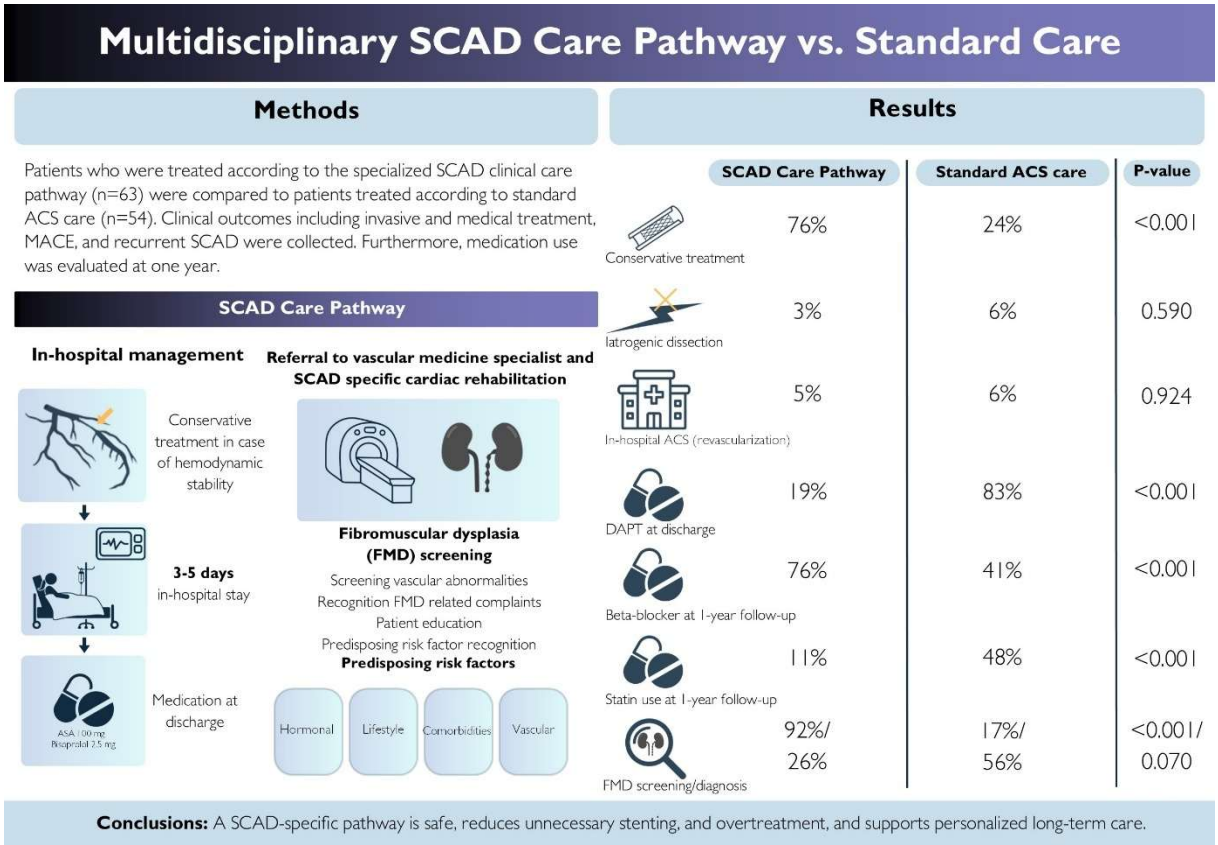
J. Al-Gully (LUMC, Leiden); J. Al-Gully (Leids Universitair Medisch Centrum, Leiden); J.P Forouzandar (Leids Universitair Medisch Centrum, Leiden); J.M. Montero-Cabezas (Leids Universitair Medisch Centrum, Leiden); J. Eikenboom (Leids Universitair Medisch Centrum, Leiden); P.L. den Exter (Leids Universitair Medisch Centrum, Leiden); F. van der Kley (Leids Universitair Medisch Centrum, Leiden); M.C. Den Haan (Leids Universitair Medisch Centrum, Leiden); J.W Jukema (Leids Universitair Medisch Centrum, Leiden; Netherlands Heart Institute, Utrecht); B.O. Bingen (Leids Universitair Medisch Centrum, Leiden); I. Al Amri (Leids Universitair Medisch Centrum, Leiden)

Purpose:
Historically spontaneous coronary artery dissection(SCAD) has been underdiagnosed leading to variations in management. To provide structured care and improve patient outcomes, a specialized SCAD care pathway was implemented, integrating standardized diagnostic criteria, individualized medical management, vascular medicine consultation and cardiac rehabilitation including psychosocial support from hospitalization up to one year follow-up. The impact of implementing care pathways on clinical outcomes of SCAD patients, however, has not been studied to date. We aim to assess in-hospital and long-term clinical outcomes of patients managed through the specialized SCAD care pathway in comparison to those who were treated before its implementation or did not follow the pathway due to initial diagnostic uncertainties.
Methods:
In this retrospective observational cohort study, 117 SCAD patients were included: 63 managed within a SCAD-specific care pathway and 54 receiving standard care prior to or independent of its implementation. The SCAD pathway included protocolized angiographic diagnosis, conservative management when feasible, individualized medical therapy, screening for fibromuscular dysplasia (FMD) and systemic disorders, and SCAD-specific rehabilitation with structured follow-up. The primary endpoint was major adverse cardiovascular events (MACE) at 1-year follow-up. Furthermore, medication use and hospital visits due to angina(equivalents) were evaluated at one year.
Results:
Patients in the SCAD pathway group were more often managed conservatively in the acute setting (76% vs. 24%, p<0.001), had significantly lower rates of stent implantation (8% vs. 65%, p<0.001), and were less frequently prescribed dual antiplatelet therapy (19% vs. 96%, p<0.001). At 12-month follow-up, beta-blocker adherence was higher (76% vs. 41%, p<0.001), aspirin use lower (38% vs. 59%, p<0.001), and recurrent SCAD occurred numerically less often but not statistically significant (3% vs. 9%, p=0.231). MACE rates were similar between groups, and no deaths occurred. FMD screening was more common in the pathway group (92% vs. 17%, p<0.001), facilitating diagnosis and tailored long-term therapy.
Conclusion:
Implementation of a standardized SCAD care pathway was associated with a safe conservative approach, more targeted secondary prevention, improved beta-blocker adherence, and a trend toward fewer recurrent SCAD events. These findings support integration of SCAD-specific multidisciplinary care into routine clinical practice to improve

diagnostic precision and long-term outcomes.

Keywords:
Spontaneous Coronary Artery Dissection

Figure:
Overview of the clinical pathway for SCAD patients, including prolonged in-hospital stay, scheduled cardiology follow-up and parallel referral to the vascular medicine specialist for screening of predisposing factors such as fibromuscular dysplasia (FMD). ACS= Acute Coronary Syndrome, ASA= Acetylsalicylic Acid, SCAD= Spontaneous Coronary Artery Disease, FMD= Fibromuscular Dysplasia, DAPT= Dual Antiplatelet Therapy



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Abstract 5

1-year Outcomes of Patients with Premature Coronary Artery Disease Undergoing PCI

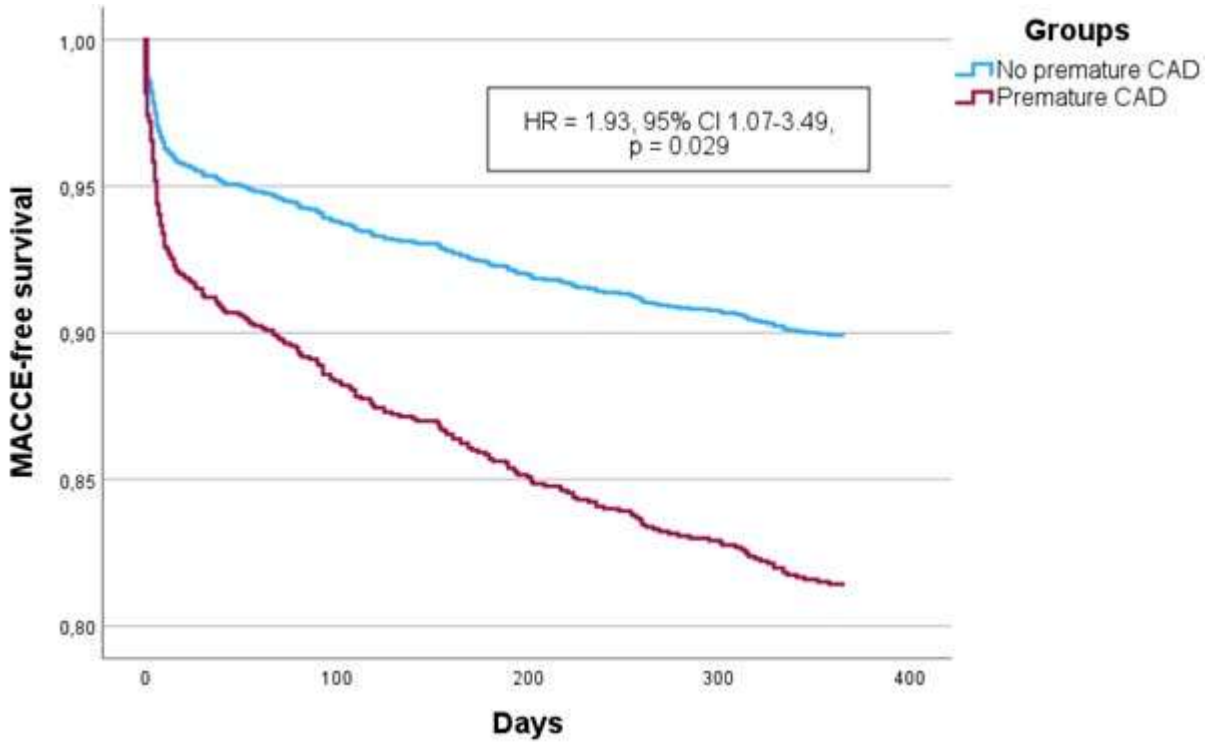
Presenting author: S. Janssen
Department: Cardiology

S. Janssen (Zuyderland Medical Centre, Heerlen); D.F.B. Smeets (Zuyderland Medical Centre, Heerlen); D.A.M. Peeters (Radboud University Medical Centre, Nijmegen); E.C.I. Woelders (Radboud University Medical Centre, Nijmegen); P.J.C. Winkler (Zuyderland Medical Centre, Heerlen); J.J.P. Luijkx (Zuyderland Medical Centre, Heerlen); W.S. Remkes (VieCuri Medical Centre, Venlo); P. Damman (Radboud University Medical Centre, Nijmegen); S. Rasoul (Zuyderland Medical Centre, Heerlen); R.J.M. van Geuns (Radboud University Medical Centre, Nijmegen); A.W.J. van 't Hof (Maastricht University Medical Centre, Maastricht)

Purpose:
Premature coronary artery disease (CAD) places a significant burden on patients' quality of life and societal productivity. We assessed the prevalence, baseline characteristics, and 1-year outcomes of patients with premature CAD undergoing percutaneous coronary intervention (PCI).
Methods:
We analyzed data from the Southeast Netherlands Heart Registry (ZON-HR), an ongoing, multicenter PCI registry. Premature CAD was defined as PCI at age <50 years in men and <55 years in women. Baseline characteristics and major adverse cardiac and cerebrovascular events (MACCE) at 1 year were compared between premature CAD and older patients. Multivariable Cox regression was used to adjust for baseline differences.
Results:
Among 5,536 patients, 364 (6.6%) had premature CAD (mean age of 46 years). Compared with older patients, those with premature CAD had a higher BMI (29.0 vs 27.7 kg/m2) and LDL-cholesterol (3.2 vs 2.7 mmol/L), and were more often active smokers (57% vs 22%). They more frequently presented with acute coronary syndrome or out-of-hospital cardiac arrest, but less often had hypertension, diabetes, peripheral artery disease, or multivessel disease. Unadjusted 1-year MACCE rates were similar between groups, however, after adjustment, the presence of premature CAD was independently associated with a higher risk of MACCE (HR 1.93, 95% CI 1.07-3.49, p=.029).
Conclusion:
In this registry, 6.6% of PCI patients presented with premature CAD. They showed a partly distinct risk factor profile and had increased adjusted risk of 1-year MACCE. These findings highlight the need to investigate nontraditional risk factors and genetic predisposition in premature CAD to enable early recognition and tailored prevention strategies.

Keywords:
Premature Coronary Artery Disease, Major Adverse Cardiac and Cerebrovascular Events, Percutaneous Coronary Intervention

Figure:
Figure 1: Multivariable Cox regression of MACCE-free survival after PCI, corrected for age, sex, BMI, hypertension, LDL-cholesterol, peripheral artery disease, multivessel disease, diabetes mellitus, previous myocardial infarction, elective or acute PCI, active smoking, and out-of-hospital cardiac arrest.
MACCE, major adverse cardiac and cerebrovascular events; CAD, coronary artery disease; HR, hazard ratio; CI, confidence interval; PCI, percutaneous coronary intervention; BMI, body mass index; LDL, low-density lipoprotein.



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Ticagrelor versus Clopidogrel alongside DOAC in Patients Requiring Anticoagulation after PCI: Insights from the ReDUAL PCI Real Life Registry-Based Randomized Controlled Trial

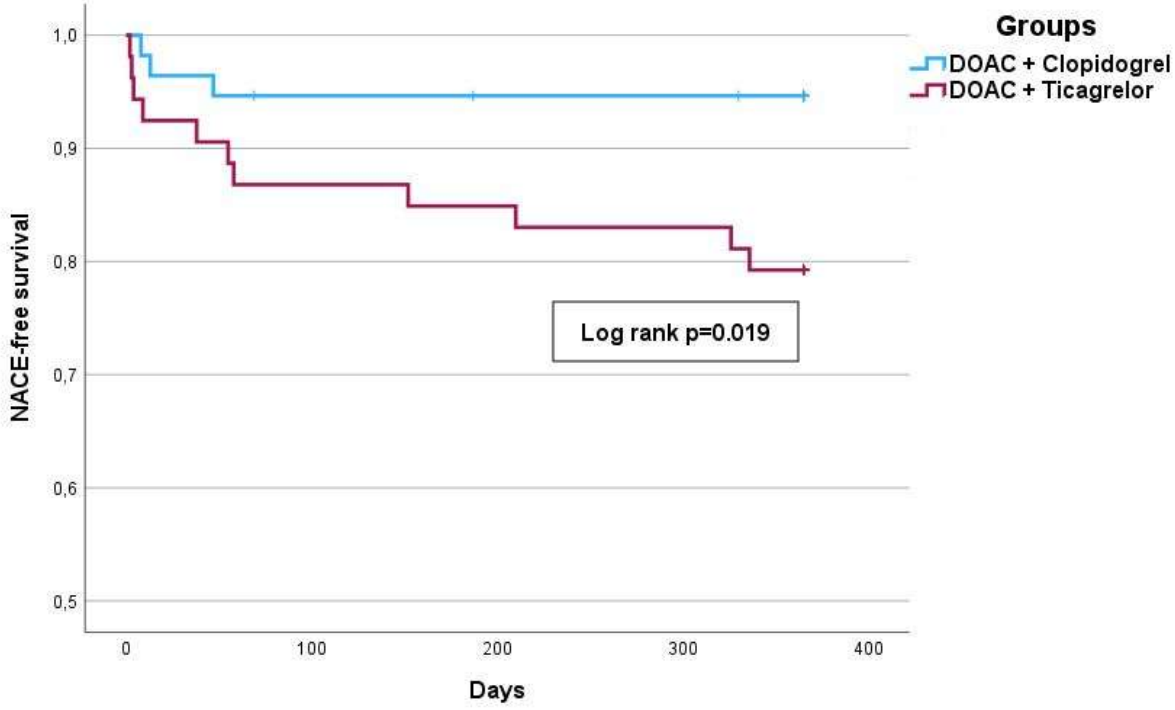
Presenting author: J.J.P. Luijkx
Department: Cardiology

J.J.P. Luijkx (Maastricht UMC+, Maastricht); S. Janssen (Zuyderland Medical Centre, Heerlen); P.J.C. Winkler (Zuyderland Medical Centre, Heerlen); E.C.I. Woelders (Radboud University Medical Centre, Nijmegen); D.A.M. Peeters (Radboud University Medical Centre, Nijmegen); P. Damman (Radboud University Medical Centre, Nijmegen); S. Rasoul (Zuyderland Medical Centre, Heerlen); R.J.M. van Geuns (Radboud University Medical Centre, Nijmegen); A.W.J. van 't Hof (Maastricht University Medical Centre, Maastricht)

Purpose:
In clinical practice, balancing thrombotic and bleeding risk in patients with an indication for direct oral anticoagulation (DOAC) after percutaneous coronary intervention (PCI) remains challenging. This study aimed to compare dual antithrombotic therapy consisting of DOAC plus ticagrelor versus DOAC with clopidogrel.
Methods:
The ReDUAL PCI Real Life study is a Dutch, open-label, multicenter, registry-based randomized controlled trial, which aimed to enroll 1000 patients randomized 1:1 to DOAC plus ticagrelor (intervention) or DOAC plus clopidogrel (control). Eligible patients had a DOAC indication and underwent PCI for acute coronary syndrome or stable angina with high thrombotic risk. The primary endpoint was major bleeding (BARC 3 or 5) at 1 year. Secondary outcomes were major adverse cardiac and cerebrovascular events (MACCE), and net adverse clinical events (NACE: MACCE plus major bleeding).
Results:
The study was terminated prematurely due to low recruitment, with a total of 109 patients enrolled (53 intervention, 56 control). Baseline characteristics were comparable between groups; mean age of 74 years, mean BMI of 29 kg/m2, 16% female, 25% diabetes, 67% hypertension, and 47% prior myocardial infarction. Major bleeding (9.4% vs 1.8%) and MACCE (13.2% vs 5.4%) occurred more frequently with ticagrelor, though not statistically significant. NACE was significantly higher with DOAC plus ticagrelor compared with DOAC plus clopidogrel (HR 4.09, 95% CI 1.14-14.66, p=.031).
Conclusion:
This study did not reach the planned sample size, limiting the ability to draw firm conclusions. Nonetheless, these results suggest a higher risk of DOAC plus ticagrelor compared with DOAC plus clopidogrel in patients undergoing PCI.

Keywords:
Dual Antithrombotic Therapy, Percutaneous Coronary Intervention, Bleeding and Thrombotic Risk

Figure:
Figure 1: Kaplan-Meier curve of NACE-free survival of patients in ReDUAL PCI Real Life Registry-Based Randomized Controlled Trial.
NACE, net adverse clinical events; DOAC, direct oral anticoagulation; PCI, percutaneous coronary intervention.



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Abstract 7

Comprehensive Analysis of Medical and Invasive Treatment Strategies for Patients with Significant Left Anterior Descending Artery Disease (COMMIT LAD)

Presenting author: C.Snik
Department: Cardiology

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Purpose:
This registry evaluates effectiveness of surgical versus pharmacological treatment of diffuse coronary artery disease (CAD).
Methods:
This is an ongoing, prospective, multicenter registry enrolling patients with significant left anterior descending artery (LAD) disease. The COMMIT-group comprises patients with diffuse LAD disease treated with OMT or CABG, and focal LAD lesions treated using OCT (Optical Coherence Tomography) guided PCI. Patients lacking, or deviating from, physiological assessment are assigned to the Standard-group. In COMMIT-patients with diffuse coronary disease, CABG or OMT is not standard; decisions are partly determined by the heart team. MACE (Major Adverse Cardiovascular Events) is the primary endpoint. Angina score and quality of life, assessed with the SAQ-7 (Seattle Angina Questionnaire-7) summary score, serve as secondary endpoints. Follow-up assessments are performed at 1, 3, 6, and 12 months.
Results:
50 patients were enrolled in the Standard-group and 94 in the COMMIT-group, with similar charasteristics in both groups. The median SAQ-7 scores for the Standard and COMMIT group were respectively 24 (IQR: 17-28) and 24 (IQR: 19-29) at baseline, 27 (IQR: 21-30) vs. 27 (IQR: 23-32) at 30 days and 29 (IQR: 26-31) vs. 28 (IQR: 20-31) at 3 months. In the Standard-group, PCI is more frequent than in the COMMIT-group (PCI: 86% vs 21.2%; CABG: 8% vs 41.5%; OMT: 6% vs 37.2%, standard vs COMMIT; $p<0.05$).
Conclusion:
Intracoronary functional measurements in stable CAD with significant LAD disease favor CABG and OMT over PCI. The completed registry data will provide valuable insights into plaque burden assessment on clinical outcomes and quality of life.

Keywords:
Fractional Flow Reserve, Coronary Artery Disease, Revascularization

Figure:
Table 1: baseline charasteristics, angina scores and treatment selection COMMIT LAD registry

Baseline charasteristic	**COMMIT**	**n**	**STANDARD**	**n**	**p-value**
Age	66.0 +/- 8.7	93	66.1 +/- 10.3	50	ns
Gender: male	83 (88.3%)	94	38 (76.0%)	50	ns
BMI	28.2 +/- 5.1	94	27.8 +/- 4.9	50	ns
LVEF	55 (50-55)	89	55 (53-55)	50	ns
Smoking	16 (17.4%)	92	10 (20.4%)	49	ns
Hypercholesterolemia	60 (64.5%)	93	34 (68.0%)	50	ns
Stroke/TIA	10 (10.8%)	93	5 (10.0%)	50	ns
Prior MI	27 (29.0%)	93	18 (36.0%)	50	ns
Prior PCI	20 (21.5%)	93	15 (30.0%)	50	ns
Family history	41 (44.6%)	92	30 (61.2%)	49	ns
PAD	8 (8.6%)	93	7 (14.0%)	50	ns
COPD	6 (6.5%)	93	8 (16.3%)	49	ns
Hypertension	67 (72.8%)	92	42 (85.7%)	49	ns
Diabetes	24 (25.8%)	93	18 (36.0%)	50	ns
Hb	9.0 +/-1.0	81	8.7 +/-1.6	46	ns
Creatinine	99.1 +/- 69.4	83	91.2 +/-22.2	47	ns
eGFR	81.8 +/- 93.5	82	73.7 +/- 15.5	47	ns
HbA1c	36.6 +/-19.0	49	39.9 +/- 27.5	34	ns
Cholesterol total	4.1 +/- 1.3	77	4.3 +/-1.4	44	ns
LDL	2.3 +/- 1.1	76	2.5 +/-1.1	43	ns
SAQ7-score	**COMMIT**	**n**	**STANDARD**	**n**	**p-value**
Baseline	24 (19-29)	77	24 (17-28)	42	ns
1 month	27 (23-32)	46	27 (21-30)	36	ns
3 months	28 (20-31)	51	29 (26-31)	29	ns
6 months	29 (24-29)	32	30 (28-32)	16	ns
12 months	29 (26-32)	16	30 (19-32)	18	ns
Treatment selection	**COMMIT**	**n**	**STANDARD**	**n**	**p-value**
CABG	39 (41.5%)	94	4 (8%)	50	ns
PCI	20 (21.2%)	94	43 (86%)	50	ns
OMT	35 (37.2%)	94	3 (6%)	50	ns

ABSTRACTS
NVVC Najaarscongres 2025
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Session 4: Coronary heart disease & prevention
Abstract 8

Relationship between Myocardial Bridging and Coronary Vasospasm

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Purpose:
Myocardial Bridging (MB) is a congenital coronary anomaly where a segment of an epicardial artery tunnels through the myocardium. While often benign, increasing evidence suggests a relationship between MB and Coronary Artery Spasm (CAS). This study investigates the relationship between MB and CAS compared to patients without MB undergoing coronary function testing (CFT).
Methods:
This retrospective cohort study was conducted at Amsterdam UMC, including patients undergoing CFT between 2004 and 2020. Patient characteristics and CFT outcomes were analyzed for those with and without MB.
Results:
Among 199 patients undergoing CFT, 25 (12.6%) had MB. The overall distribution of endotypes assessed by CFT is presented in Table 1. The mean age of MB patients was 54.1±11.8 years, compared to 56.2±10.7 in non-MB patients. Females comprised 88% (N=22) of the MB group and 82% (N=141) of the non-MB group. Mean BMI was 25.1±3.4 for MB patients and 26.0±4.1 for non-MB patients.
Conclusion:
In this cohort, MB did not significantly impact overall CFT endotypes. However, the origin of spasm in MB patients was frequently related to the bridged vessel, suggesting a specific pathophysiological link between MB and localized CAS.

Keywords:
Myocardial Bridging, Coronary Vasospasm, Non-obstructive Coronary Artery Disease

Figure:

	PATIENTS WITH MB (N=25)	PATIENTS WITHOUT MB (N=174)
EPICARDIAL SPASM	**21 (84%)**	**115 (66%)**
○ FOCAL SPASM AT MB SITE	○ 7 (33%)	
○ DIFFUSE SPASM IN MB ARTERY	○ 3 (14%)	
○ DIFFUSE AND FOCAL SPASM IN MB ARTERY	○ 2 (10%)	
○ MULTIVESSEL SPASM INCLUDING THE MB ARTERY	○ 8 (38%)	
○ SPASM NOT IN THE MB ARTERY	○ 1 (5%)	
MICROVASCULAR SPASM	**1 (4%)**	**13 (7%)**
NO SPASM	**3 (12%)**	**46 (26%)**
CORONARY MICROVASCULAR DYSFUNCTION	**5 (20%)**	**25 (14%)**