De nieuwste inzichten over SCAD

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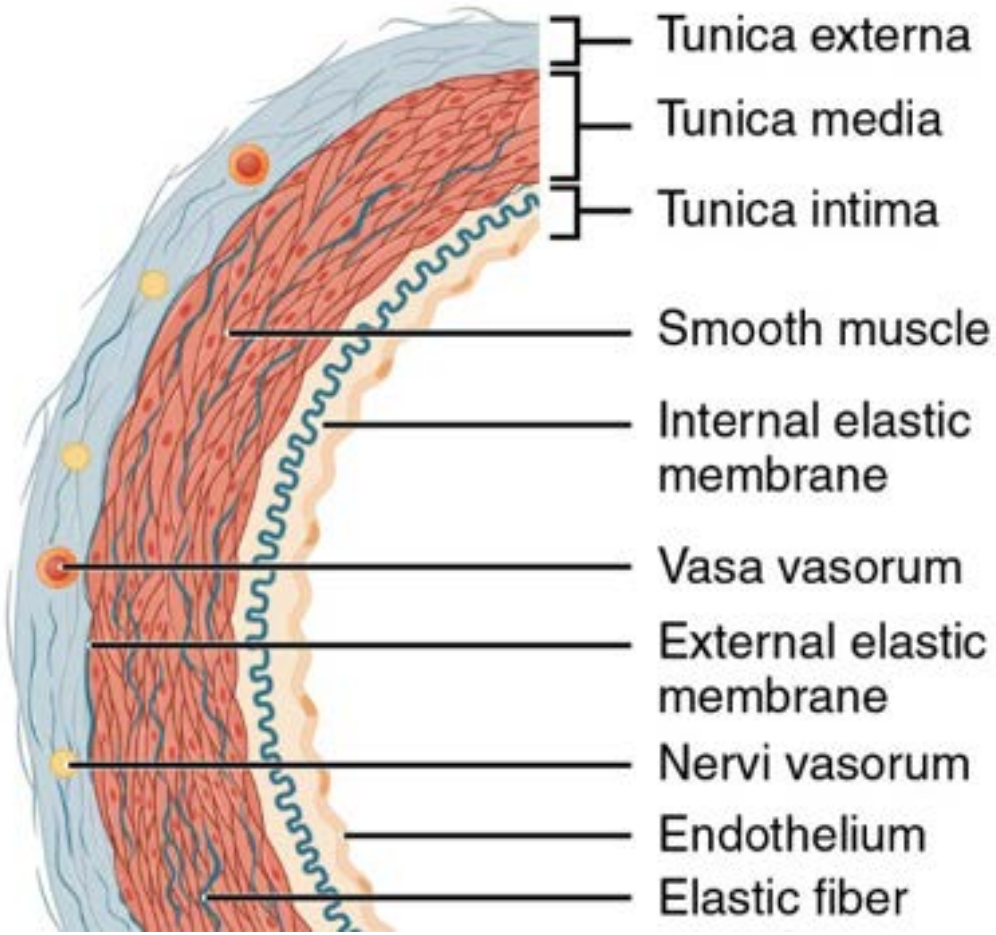
Vaatwand



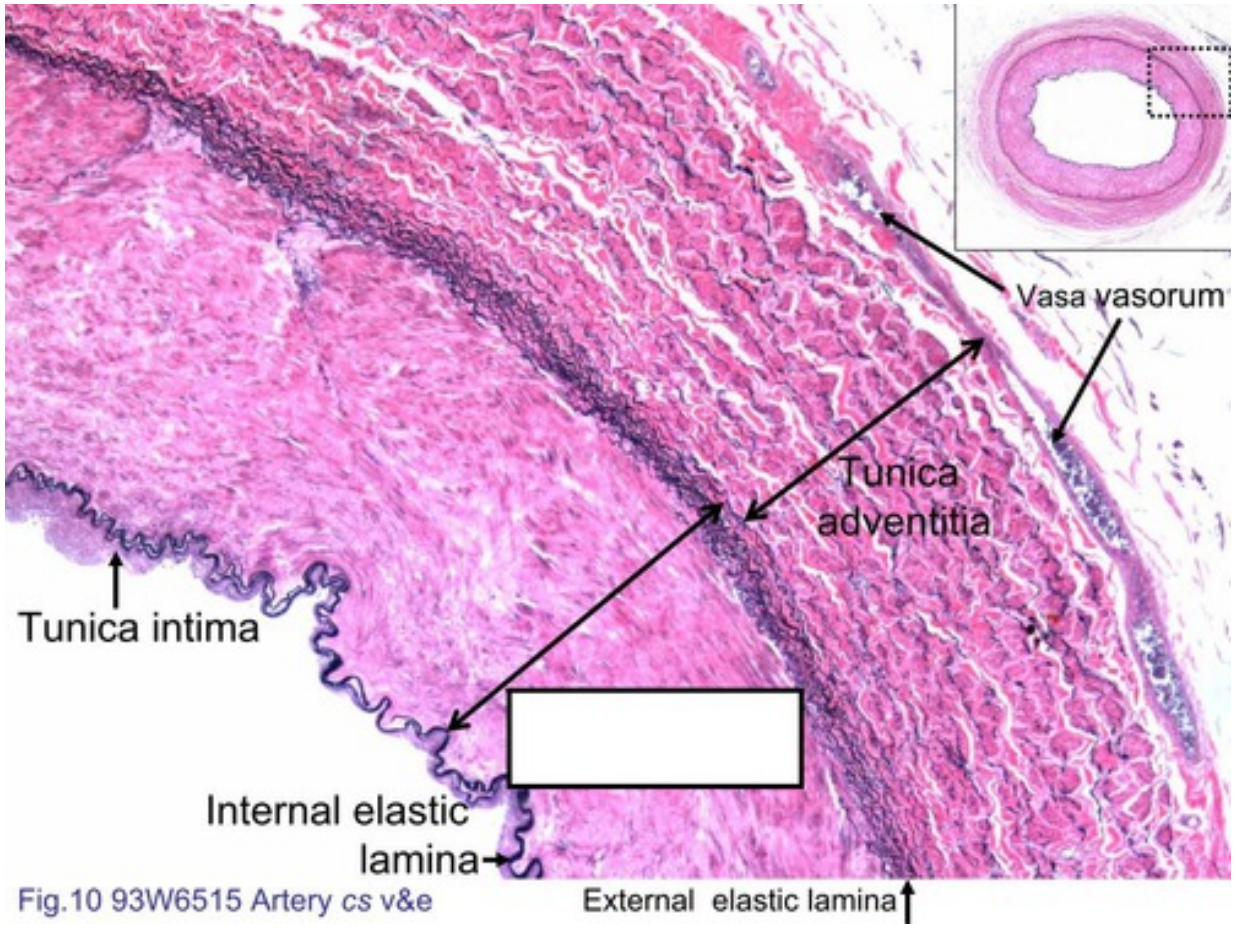
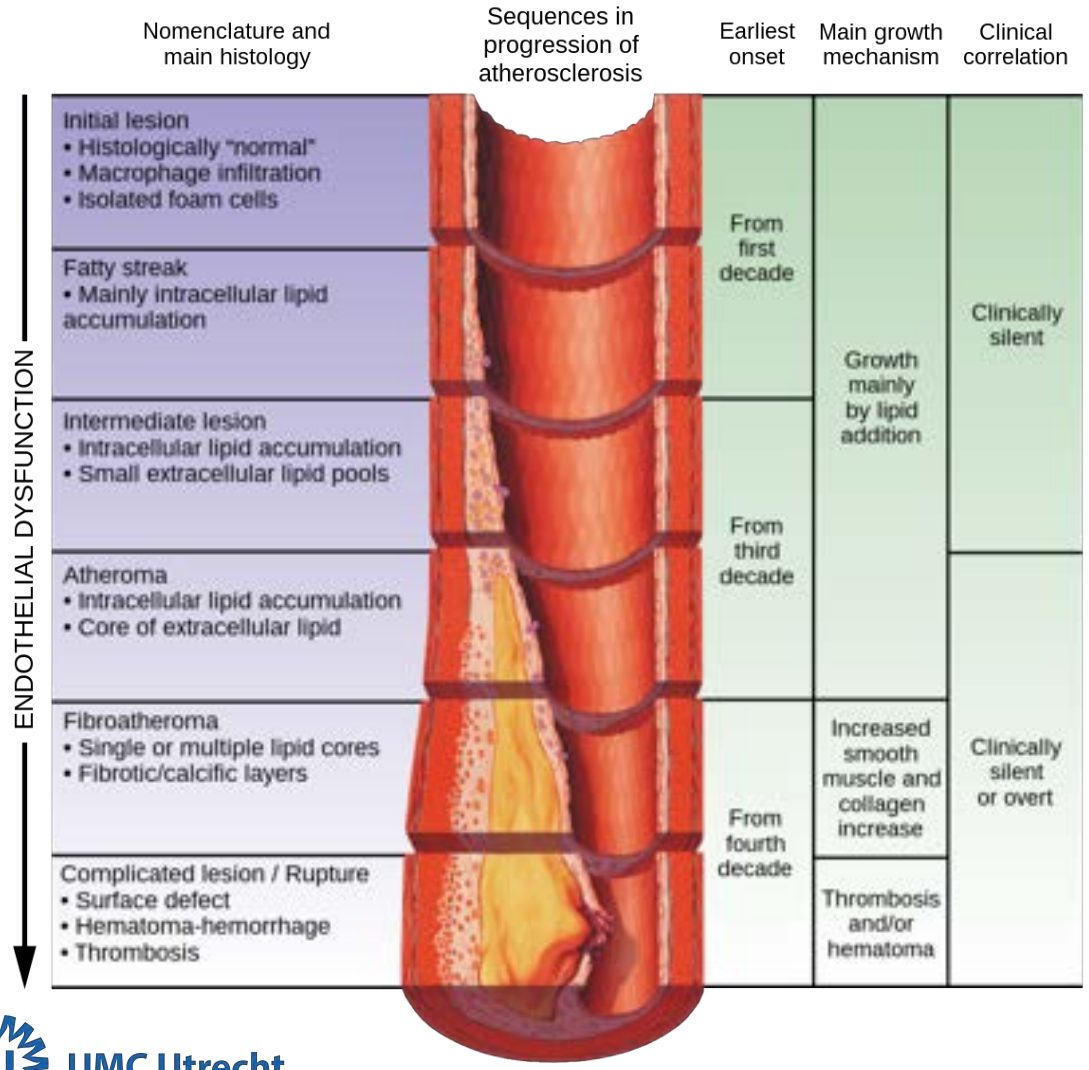
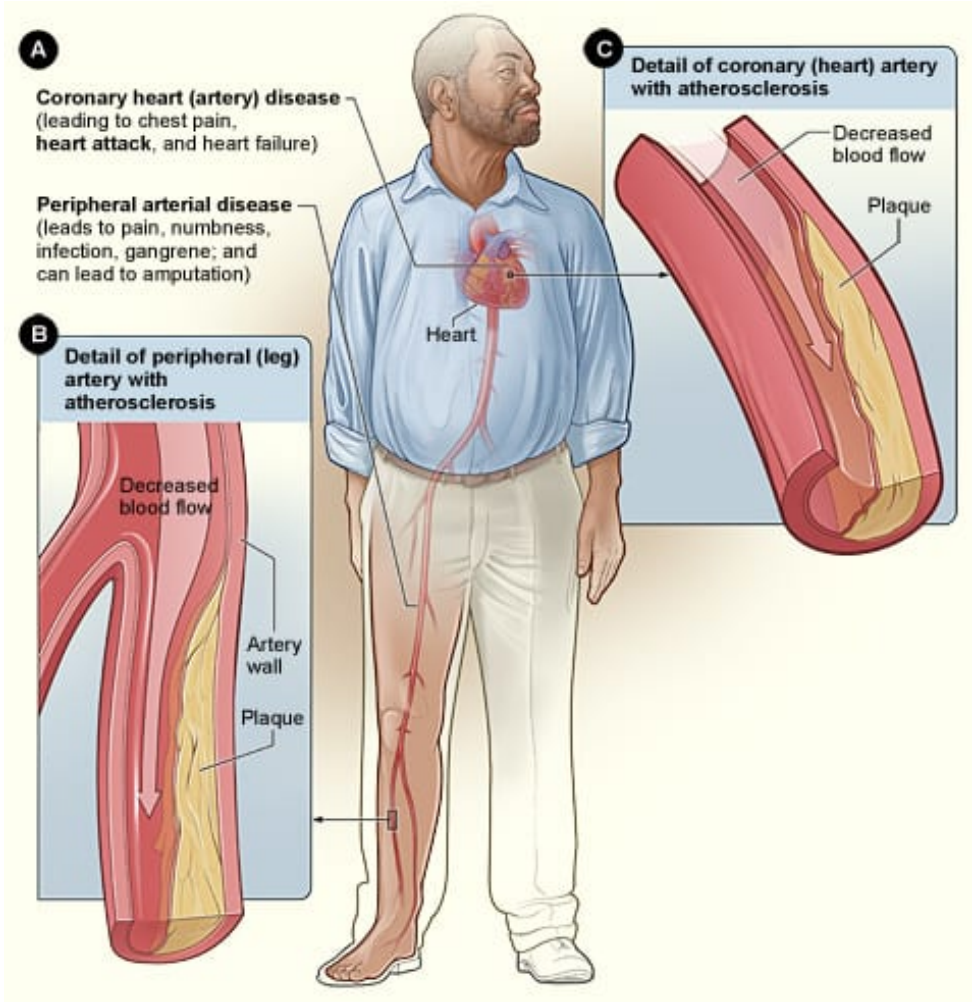


Fig.10 93W6515 Artery *cs* v&e

Slagaderverkalking





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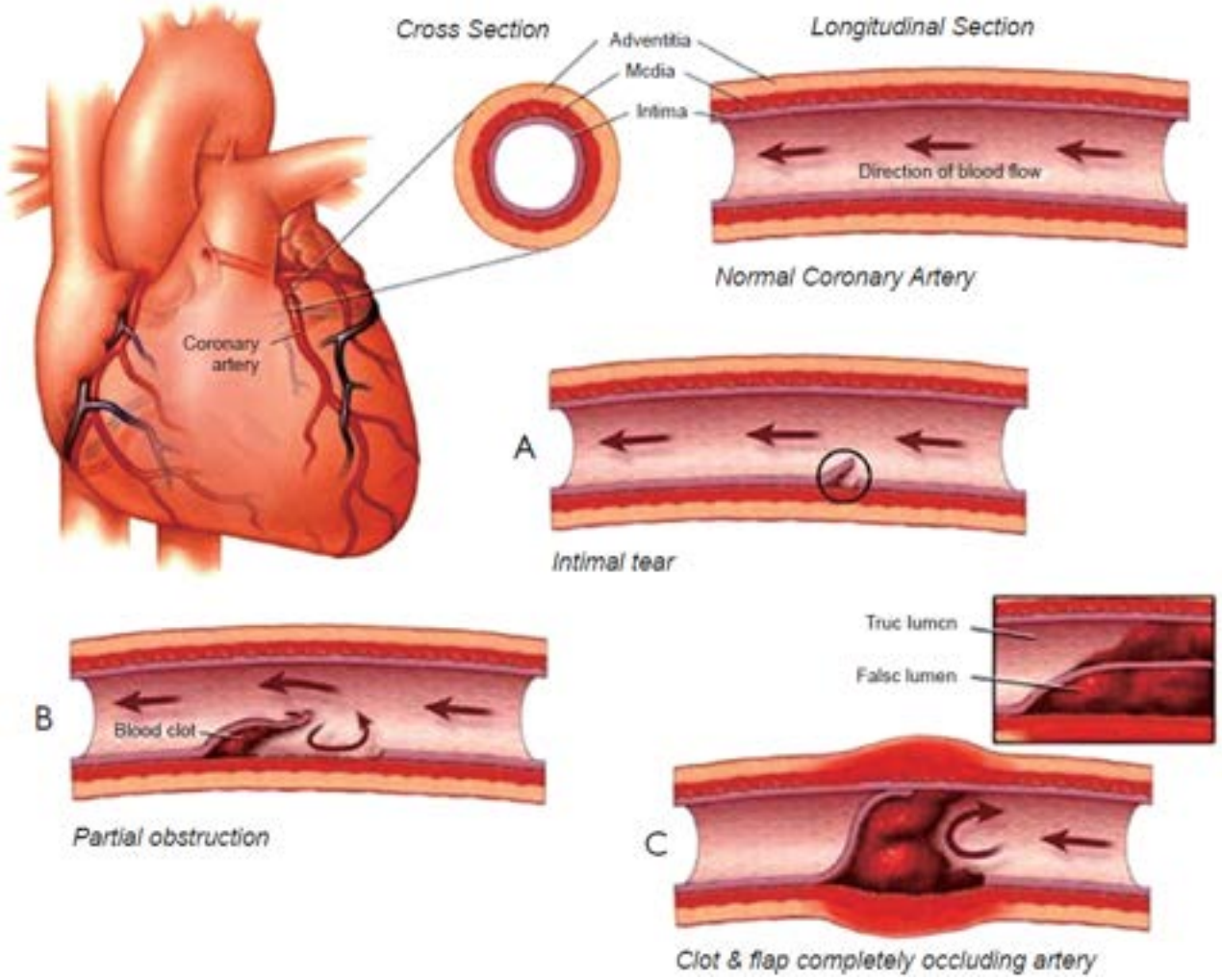
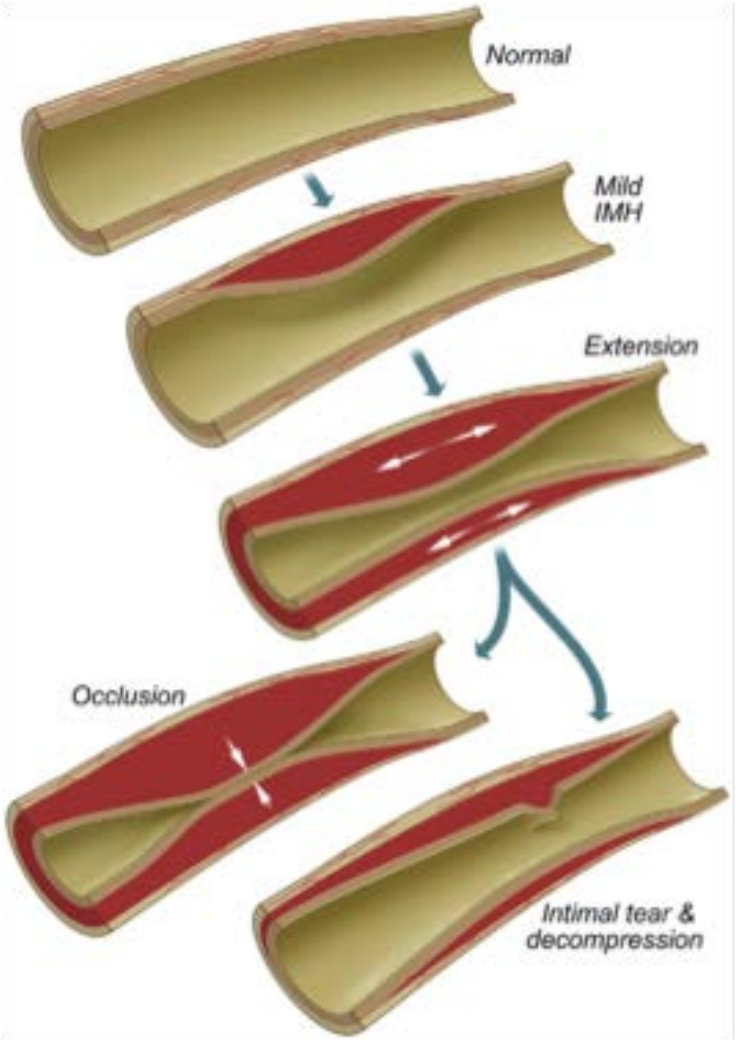
Hoe ontstaat SCAD?





Epidemiologie

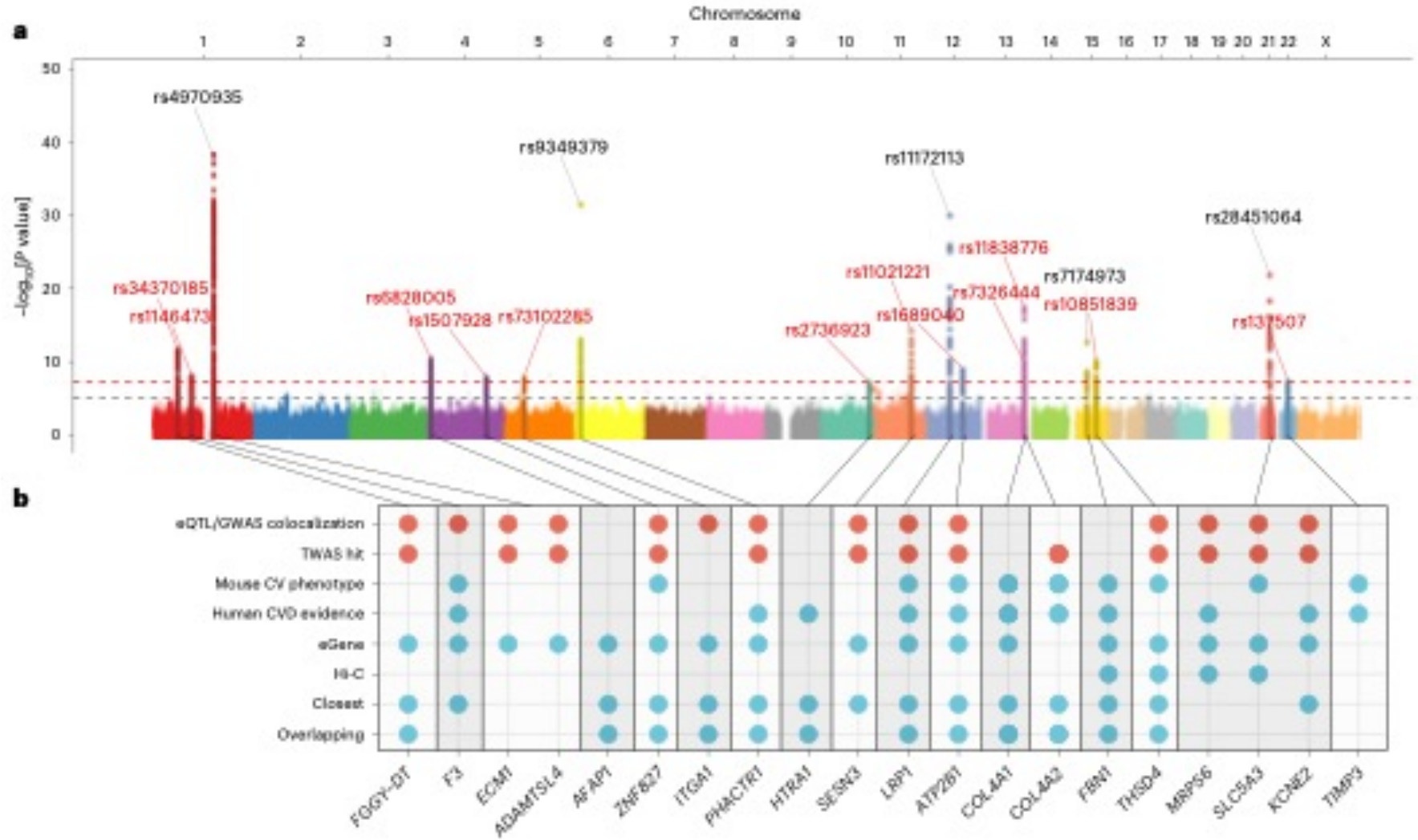
- 85-95% vrouw
- Gemiddelde leeftijd: 44-53 jaar
- Geen ethnische verschillen
- SCAD in acuut coronair syndroom (ACS):
  - 4% van alle ACS
  - 35% bij vrouwen <50 jaar
- 1% van alle vrouwen met een hartinfarct

Hayes, J Am Coll Cardiol 2020

Risicofactoren van SCAD

- Vrouw-specifieke factoren (oestrogenen?)
- Emotionele/fysieke stress
- Hoge bloeddruk
- Zwangerschap
- Erfelijke factoren (nu reeds 17 bekend)

Is SCAD erfelijk bepaald?



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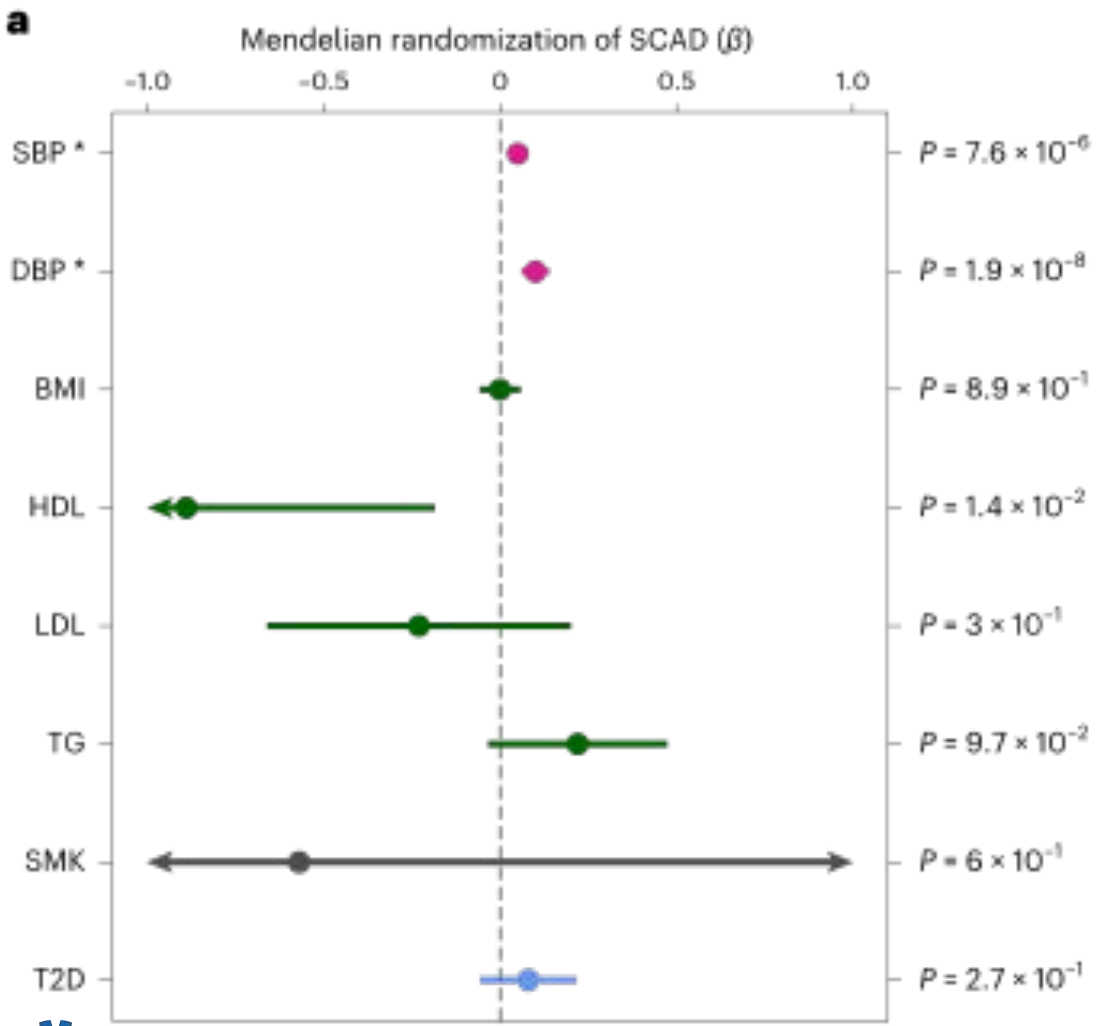
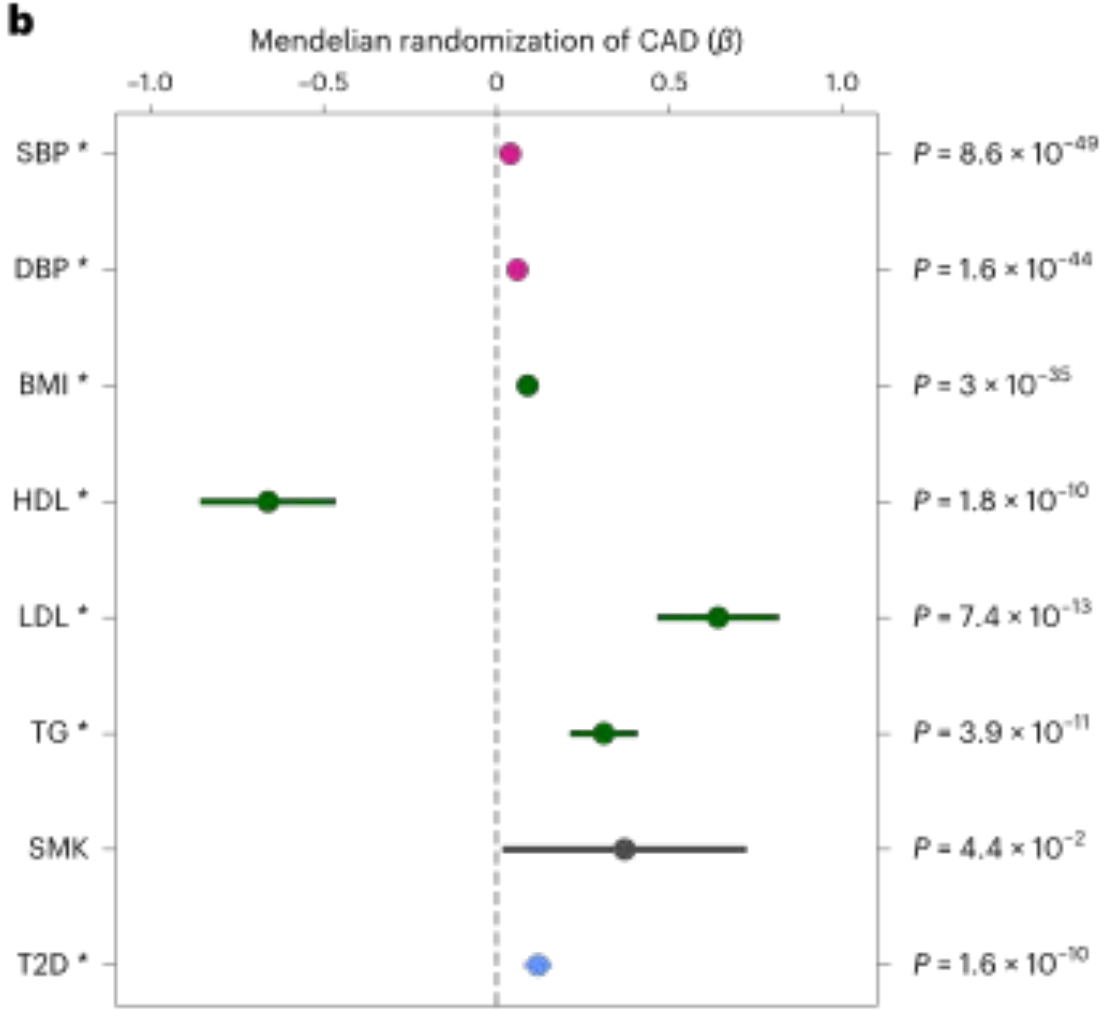
Risicofactoren van SCAD vs. CAD





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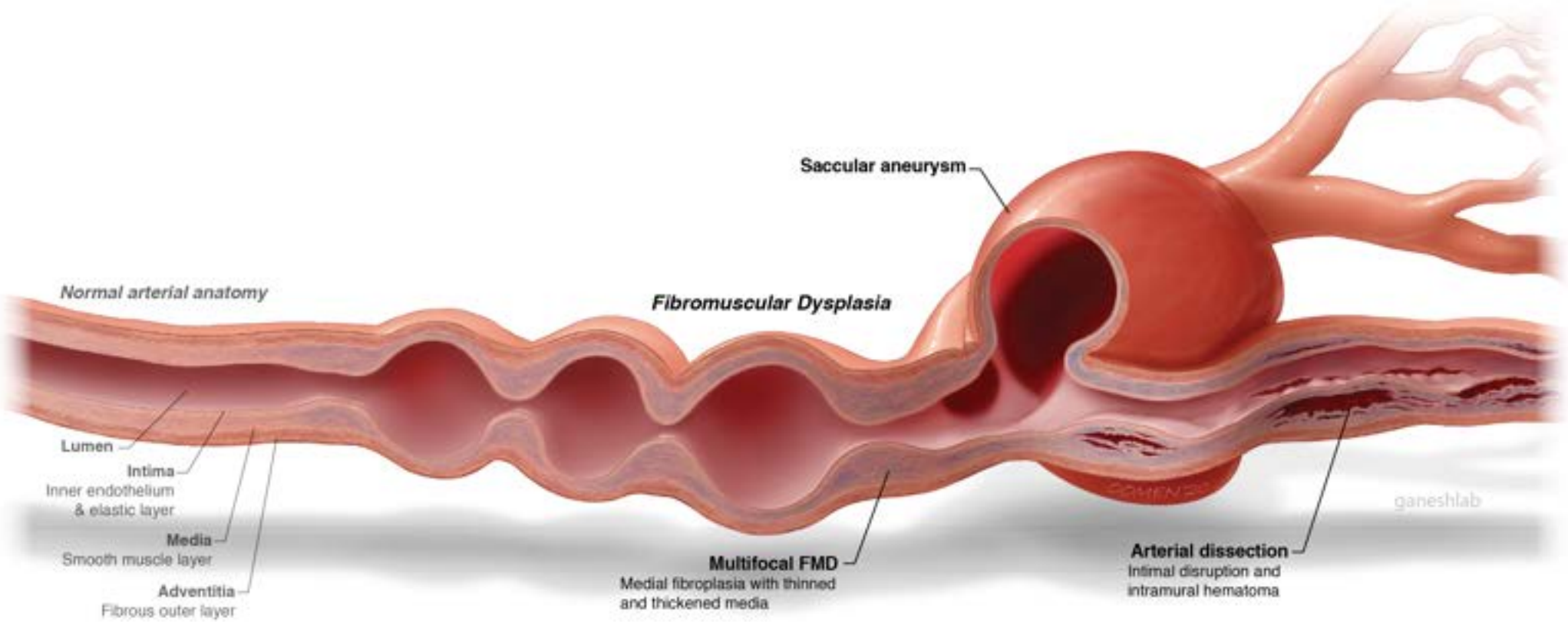
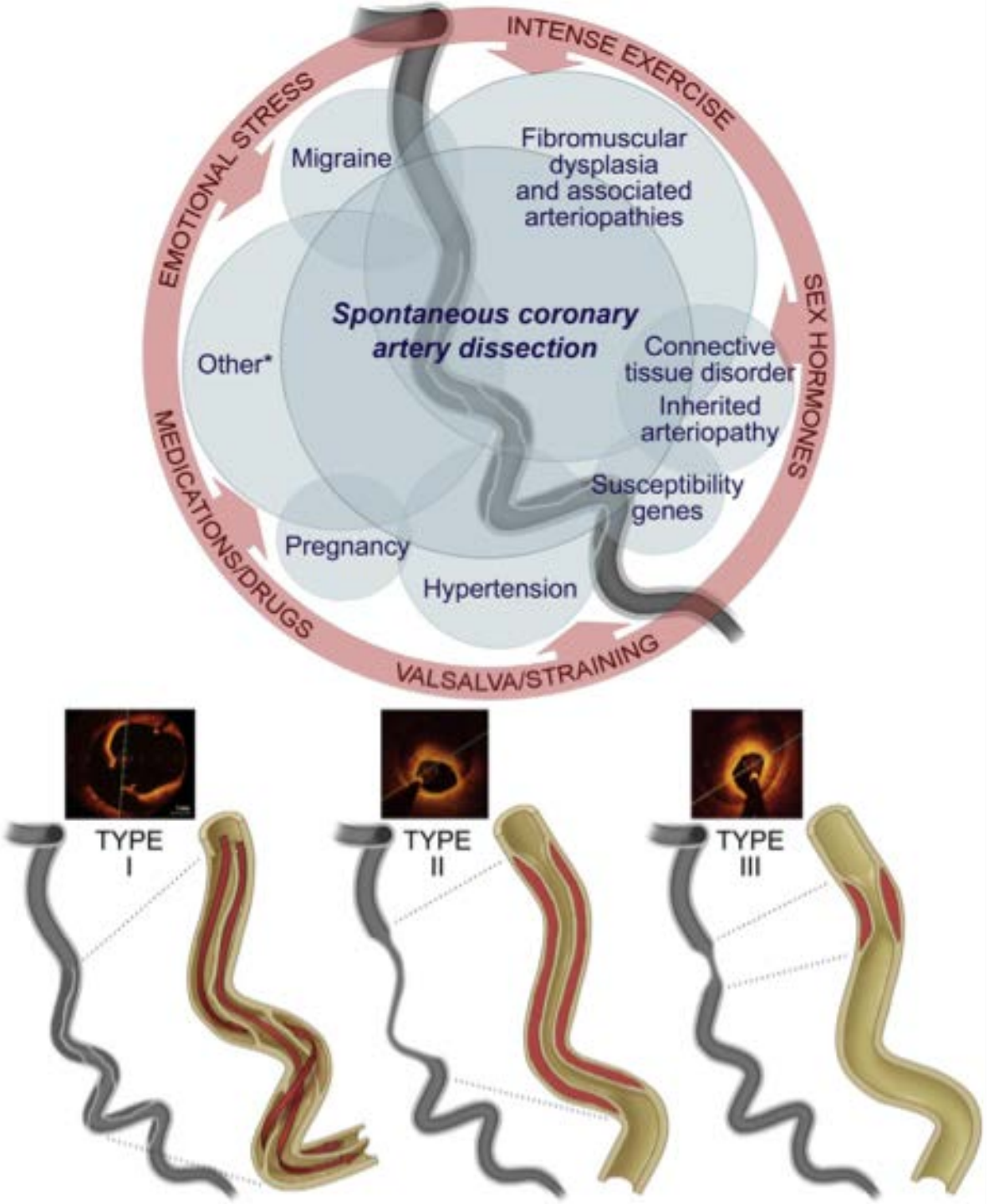
Wat is fibromusculaire dysplasie?



SCAD vs. FMD

	SCAD	FMD
n	750	1022
Leeftijd, *jaar*	51.7	45.8
Vrouwen, *%*	89	82
Huidig roken, *%*	11.6	19.3
BMI, kg/m^2	26.4	24.5
Hoge bloeddruk, *%*	32.1	85.6
Hoog cholesterol, *%*	20.3	-
Pulsatiele tinnitus, *%*	13.3	16.9
Migraine, *%*	32.5	8.4
FMD, *%*	58	100

Saw, J Am Coll Cardiol 2022; Pappaccogli, Cardiovasc Res



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Recurrence of SCAD

First Author, Year (Ref. #)	N	Atherosclerosis Included	Recurrence Definition	Excluded Extension?	Recurrence Rate
Tweet et al., 2014 (48)	189	No	New SCAD, clinical evidence of acute myocardial ischemia and biomarker increase	Yes	29/189 (15%) 27% 5-yr K-M estimate/Median follow-up 27 months IQR: 8.7 to 66.7 months Range 0.06 to 332 months
Lettieri et al., 2015 (4)	127	Yes (11.9% of series)	New SCAD, not further defined	Not discussed	6/127 (4.7%) Median follow-up 22 months Range 1 to 166 months
Nakashima et al., 2016 (11)	63	No	New SCAD not involving index vessel	Yes	8/63 (13%) Median follow-up 34 months Range 3 to 160 months
Rogowski et al., 2017 (99)	64	No	New SCAD not involving index vessel	Yes	3/64 (4.7%) Median follow-up 54 months IQR: 21.6 to 100.8 months
Saw et al., 2017 (60)	327	No	New SCAD with evidence of acute myocardial ischemia and biomarker increase	Yes	34/327 (10.4%) 12-19% 5-yr K-M estimate Median follow-up 37 months 17.9 to 65.9 months
Kok et al., 2018 (3)	585	No	New SCAD, clinical evidence of acute myocardial ischemia and biomarker increase	Yes	88/585 (15%) 17% 5-yr K-M estimate Median follow-up 31.2 months IQR: 11.8 to 64.2 months Range 0.95 to 346.9 months
Saw et al., 2019 (5)	750	No	New SCAD, clinical evidence of acute myocardial ischemia and biomarker increase	Yes	1/750 0.13% at 30 days
Clare et al., 2019 (6)	208	Unknown	New SCAD, not further defined	Not discussed	22/208 (10.6%) Follow-up 4.7 ± 3.1 yrs (5/22 recurrences occurred >60 months from index SCAD, 1 at 10.5 yrs)
Lobo et al., 2019 (100)	53	No	New SCAD presenting as STEMI after an initial SCAD (NSTEMI recurrence excluded)	Yes	0/53 0% at 1 yr
Krittanawong et al., 2020 (101)	1,836	Unknown, based on ICD codes only, no angiographic review	Patient with ICD-coded SCAD admitted within 1 yr with another primary coded diagnosis of SCAD	No	495/1,836 26.9% at 1 yr

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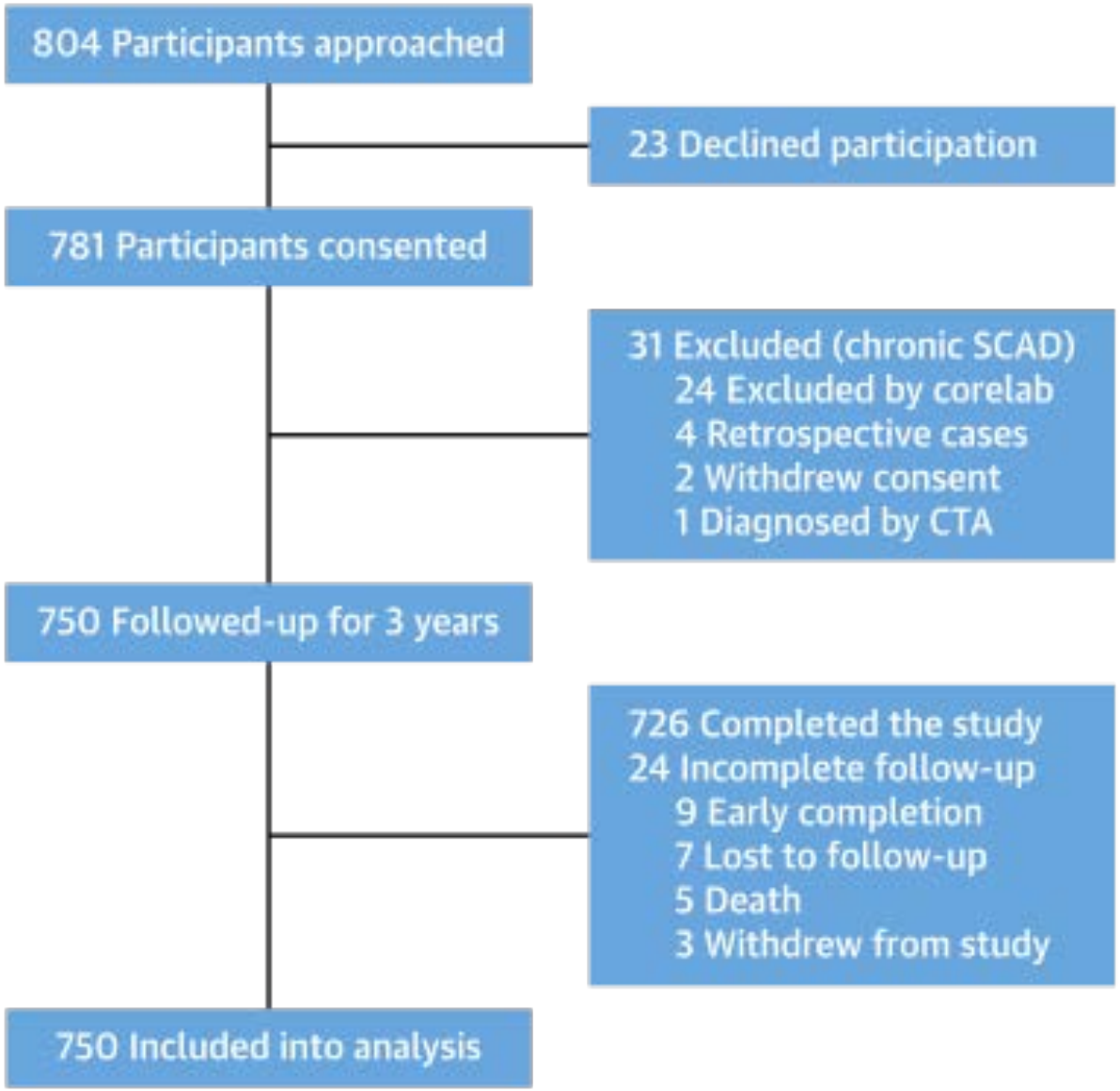
Canadian SCAD Cohort Study



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Baseline demographics

Age, y	51.7 ± 10.5
Female	664 (88.5)
Body mass index, kg/m^2	26.4 (23.1-31.2)
Race	
Caucasian	655 (87.3)
East Asian	33 (4.4)
South Asian	18 (2.4)
African Canadian	12 (1.6)
First Nation	10 (1.3)
Other	22 (2.7)
Medical history	
Diabetes mellitus	35 (4.7)
Diabetes mellitus on medication	17 (2.2)
Hypertension	241 (32.1)
Dyslipidemia	152 (20.3)
Current smoker	87 (11.6)
Family history of premature CAD	285 (38.0)
No cardiac risk factors	254 (33.9)
≥3 cardiac risk factors	71 (9.5)
History of previous revascularization	13 (1.7)
History of previous MI	63 (8.4)
Confirmed cases of previous SCAD	42 (5.6)
History of CVA	26 (3.5)
History of heart failure	3 (0.4)
History of atrial fibrillation	21 (2.8)
Relevant clinical history	
Tinnitus	100 (13.3)
History of migraines	244 (32.5)
History of depression	146 (19.5)
On medication for depression	111 (14.8)
History of anxiety	148 (19.7)
On medication for anxiety	88 (11.7)
Thyroid dysfunction	97 (12.9)
Hypothyroid	85 (11.3)

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Stressors and predisposing conditions

Precipitating stressors	
Emotional stress (rated high or severe)	377 (50.3)
Perceived Stress Scale ≥20	288 (41.2)
Unusually intense physical stress	216 (28.9)
Isometric stress >50 lb	74 (9.8)
Cocaine/amphetamine use	2 (0.3)
Valsalva-type stress	90 (12.0)
No precipitating factor	252 (33.6)
Predisposing conditions	
Fibromuscular dysplasia	247 (32.9)
Systemic inflammatory disease	29 (3.9)
Connective-tissue disorder	22 (2.9)
Genetic disorder	12 (1.6)
Active hormonal therapy	74 (9.9)
Peripartum	34 (4.5)
Grand multigravida (≥5 pregnancies)	67 (8.9)
Multiparous (≥4 births)	64 (8.5)
Grand multiparity (≥5 births)	17 (2.3)
Idiopathic (none of the above)	359 (47.9)

Fibromuscular dysplasia screening	
Complete FMD screening done	438 (58.4)
Incomplete screening	138 (18.4)
FMD screen not done	174 (23.2)
Presence of extracoronary FMD	
FMD present	247/438 (56.4)
FMD possible (nonmultifocal)	53/438 (12.1)
No FMD on complete screen	138/438 (31.5)
Territory of FMD involved	
Renal artery FMD	146/576 (25.3)
Femoral and/or iliac artery FMD	94/576 (16.3)
Cerebrovascular artery FMD	137/576 (23.8)
Other: non-renal visceral artery FMD	23/576 (4.0)
Cerebral aneurysm	33/576 (5.7)

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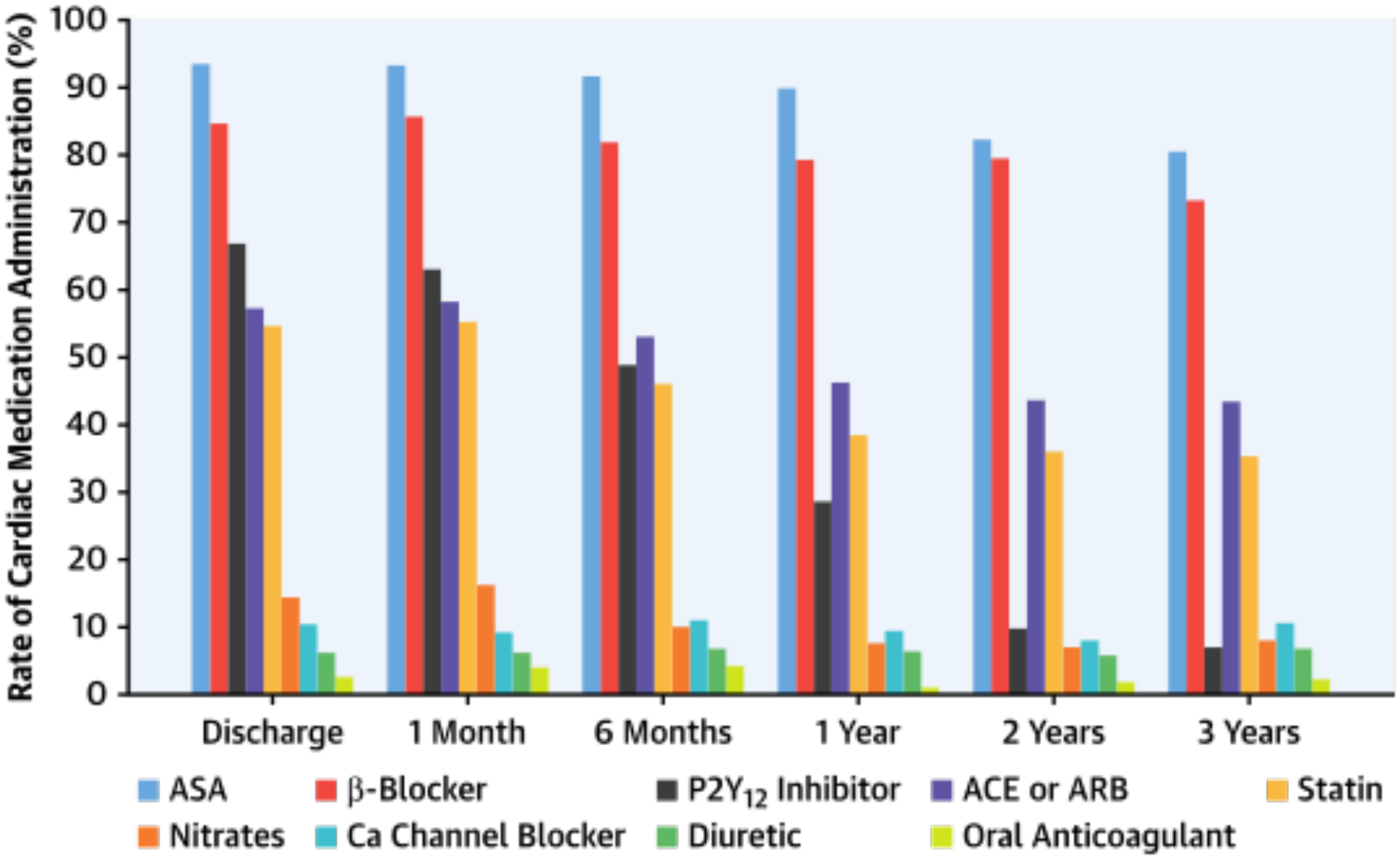
Cardiac medication



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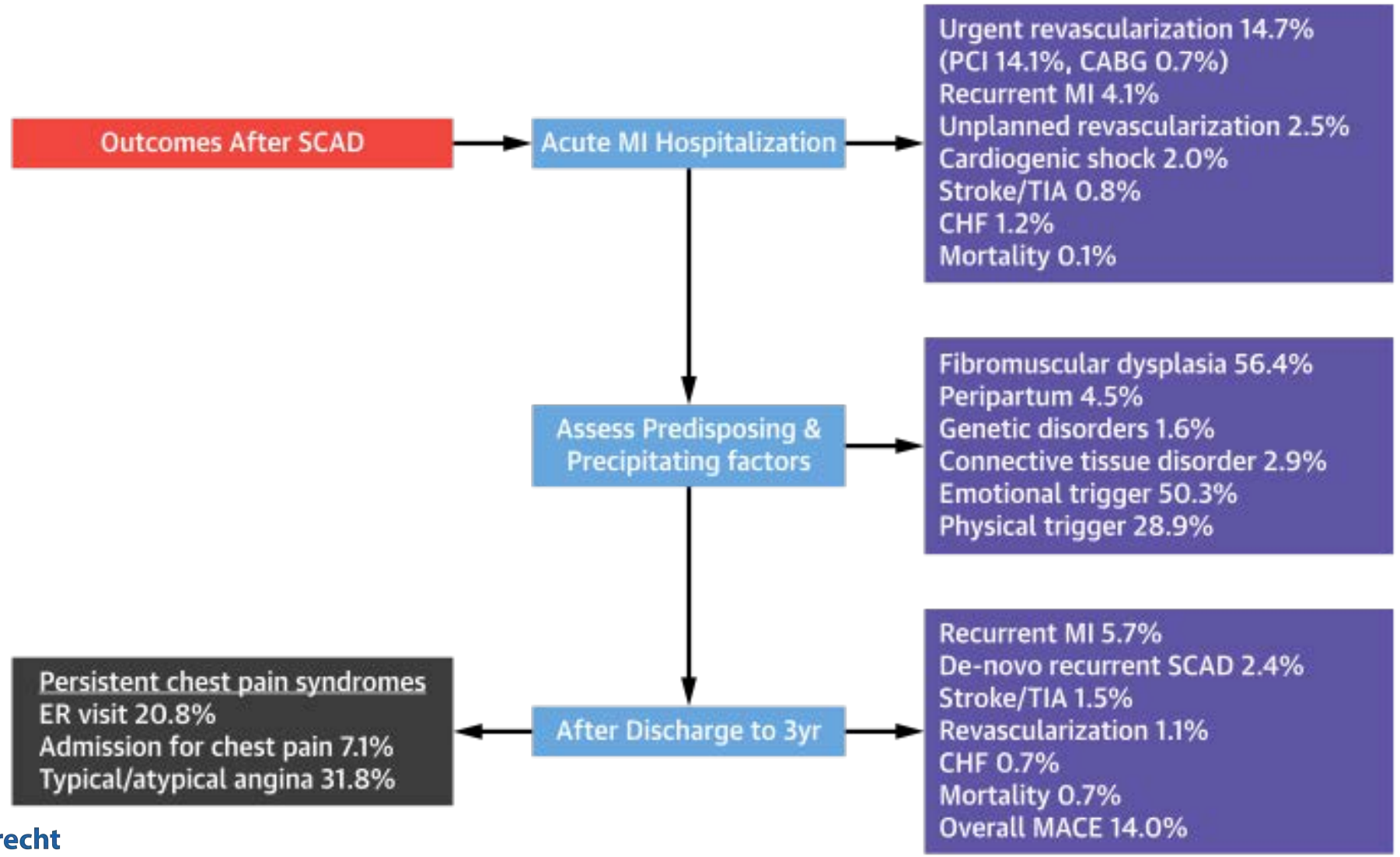
Natuurlijk beloop van SCAD



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Behandeling van SCAD anno 2023

- Acuut:
  - Trombolyse: niet aanbevolen
  - Dotteren: nee, tenzij
  - Bypass: alleen wanneer dotter niet gelukt is of als zeer hoog risico wordt beschouwd
- Chronisch:
  - Afgenomen pompfunctie: beta-blokkers en RAS-blokkers
  - Bloedverdunners:
    - Dotter: DAPT volgens geldende richtlijnen
    - Geen dotter: DAPT 2-4 weken en hierna aspirine 3-12 maanden (?) bij geen dotteren
  - Hypertensie: behandelen
  - Hypercholesterolemie: geen bewijs medicamenteus te behandelen

Hayes, J Am Coll Cardiol 2020

Conclusies SCAD

- Vaatwandziekte van de kransslagaderen, niet veroorzaakt door slagaderverkalking
- Waarschijnlijk meerdere oorzaken, maar nog erg onduidelijk
- Voornamelijk in gezonde vrouwen tussen 35-55 jaar
- Recidieven 6% in 3 jaar (MACE 14%)
- Vaak grote impact op leven van patienten
- Opvallende associatie met FMD (>55% heeft FMD)
- Gestructureerd verzamelen gegevens in centraal register erg belangrijk voor begrip van de ziekte en toekomstige behandelingen


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