AKS unga

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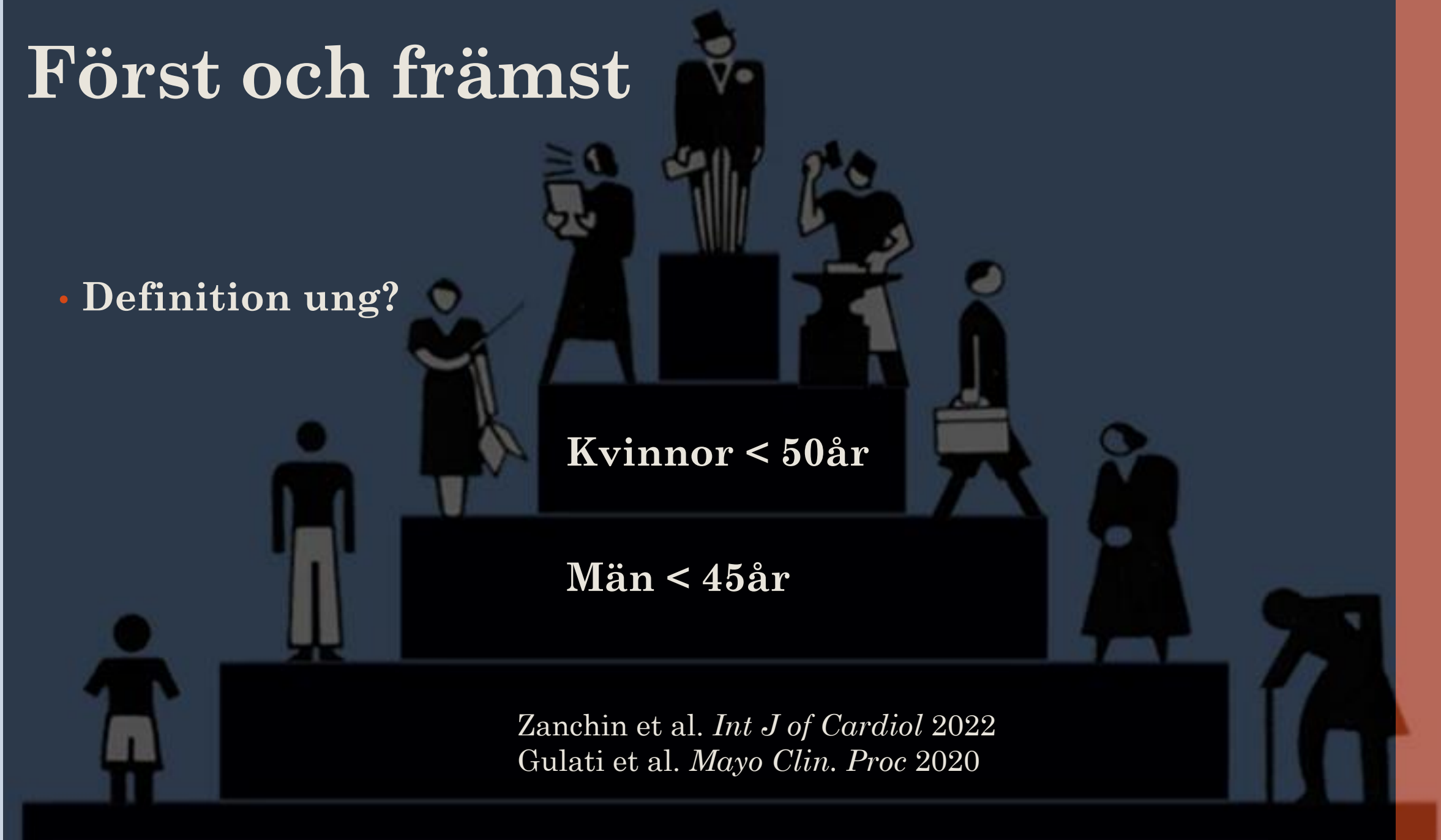
Först och främst

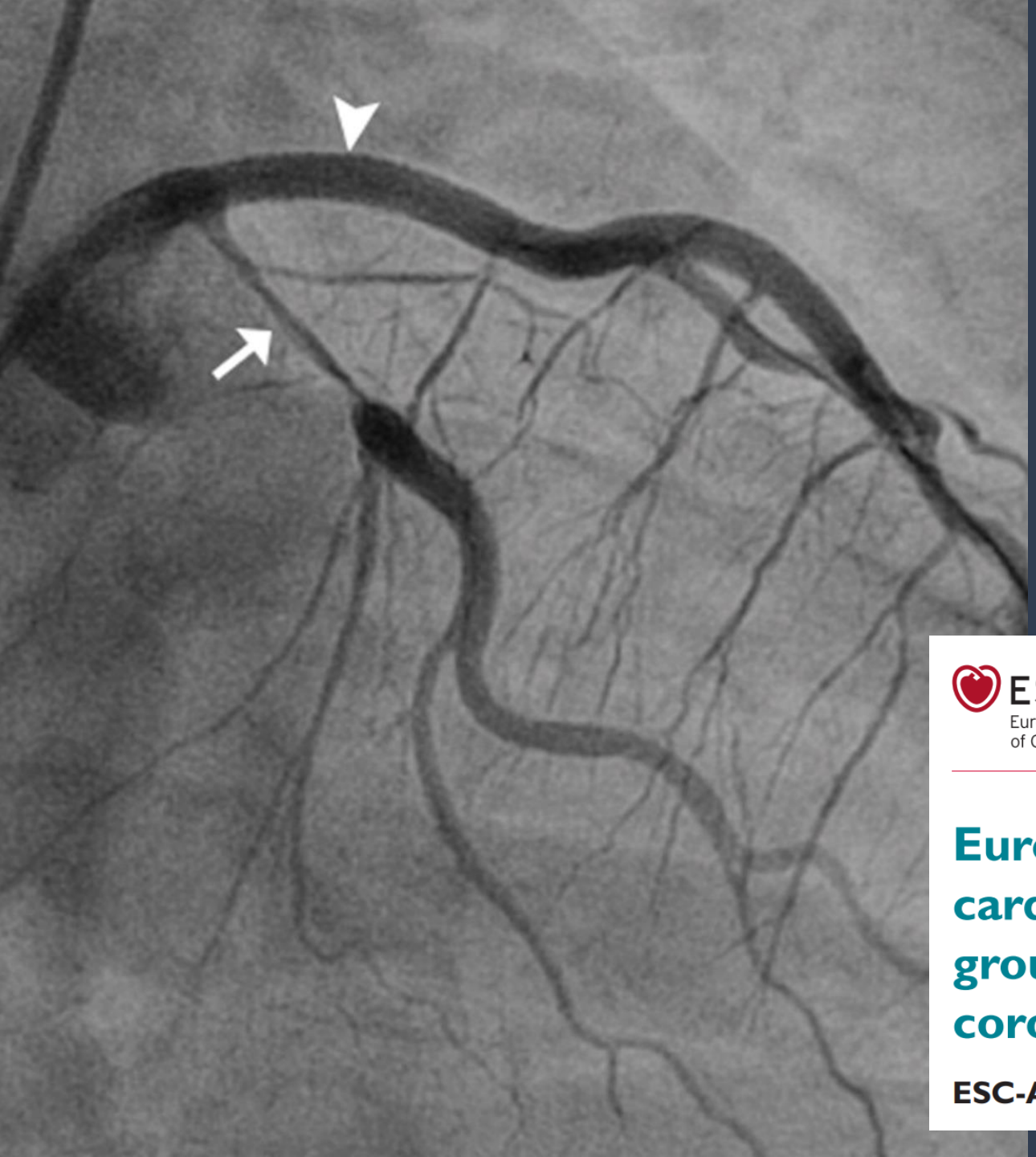
- Definition ung?



Zanchin et al. *Int J of Cardiol* 2022
Gulati et al. *Mayo Clin. Proc* 2020

Orsaker till AKS unga

SCAD



SCAD

- 0.3-**4.2**% av all AKS

- Ålder 44-52 år
- Kvinnor >> Män

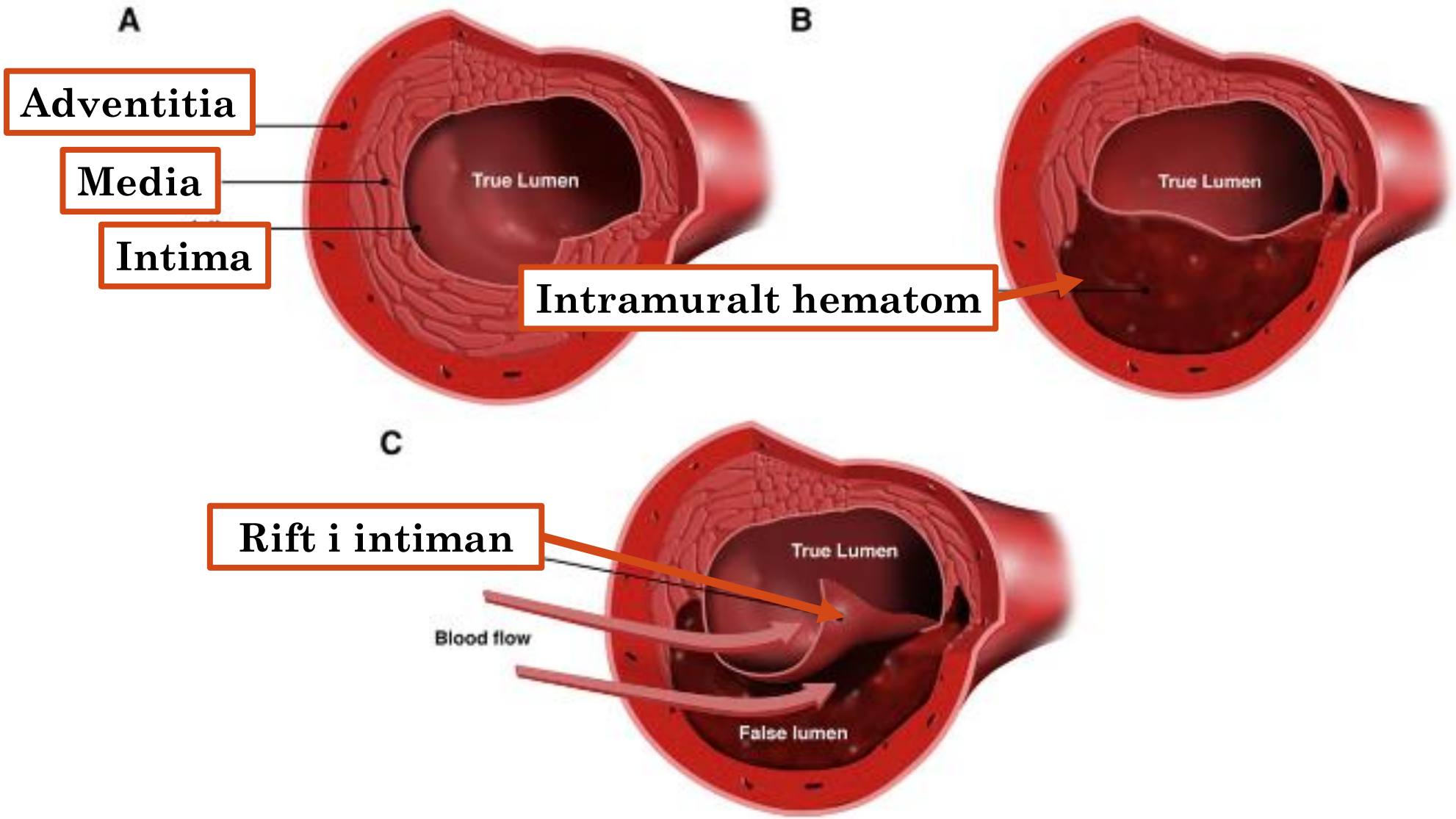
ESC European Society of Cardiology

European Heart Journal (2018) **39**, 3353–3368
doi:10.1093/eurheartj/ehy080

CURRENT OPINION
Coronary artery disease

European Society of Cardiology, acute cardiovascular care association, SCAD study group: a position paper on spontaneous coronary artery dissection

ESC-ACCA Position Paper on spontaneous coronary artery dissection



Hayes et al. *Circulation* 2018

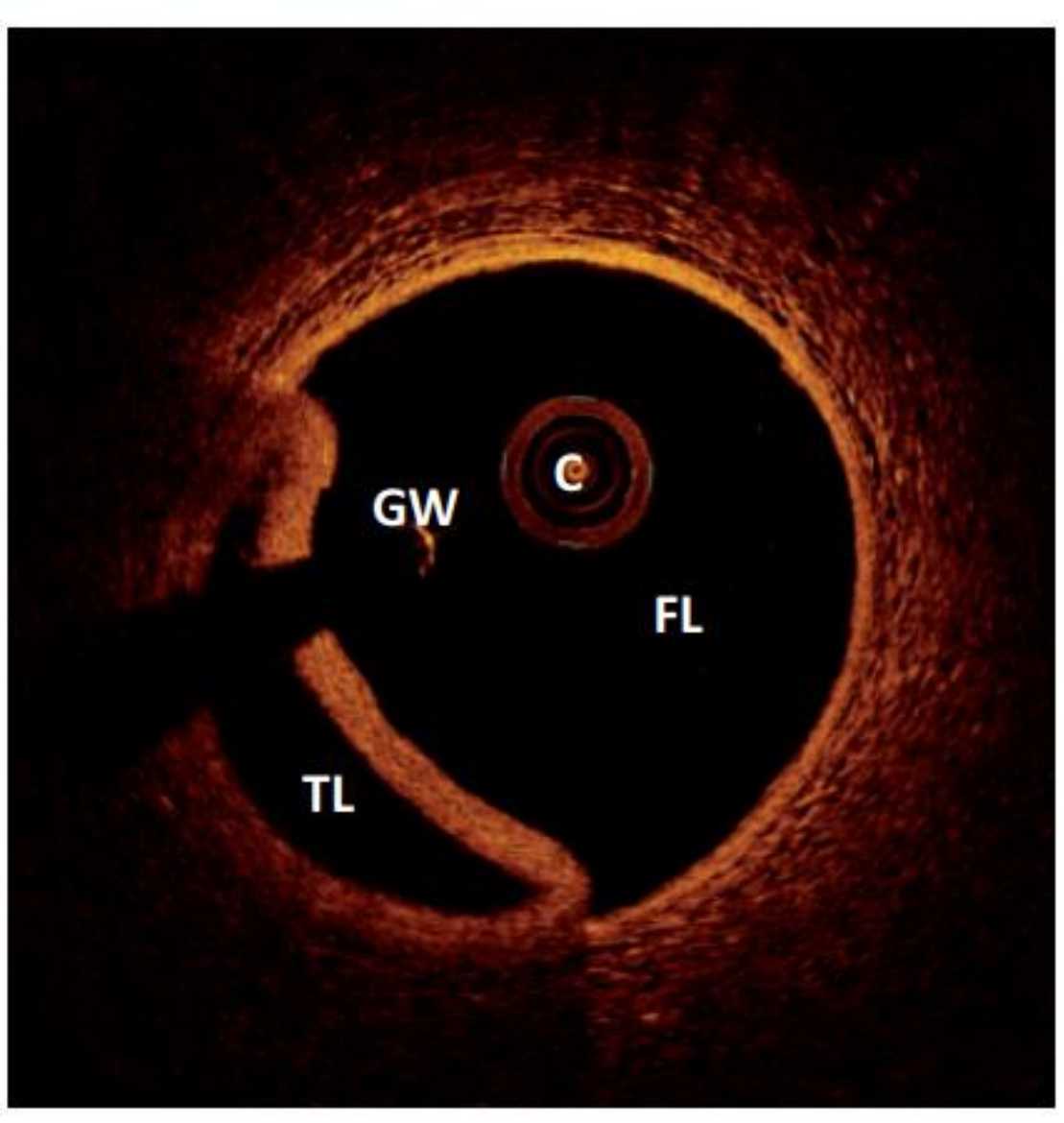
SCAD kan förekomma vid

- Bindvävssjukdom
- **Fibromuskulär dysplasi**
- Inflammatorisk systemsjukdom

SCAD triggers

- **Hormonellt**: ffa peripartum period
- **Emotionell stress**
- **Fysisk:** valsalva(kräkning,tyngdlyftning)

Hayes et al. *Circulation* 2018
ESC position paper on SCAD *Eur Heart J* 2018



Diagnos

- Koronarangio
- Intravaskulär imaging

Behandlingsstrategi SCAD

- **Konservativ hållning**
- Komplikationsrisk vid PCI hög! Upp till 30-40%

In patients with spontaneous coronary artery dissection, PCI is recommended only for patients with symptoms and signs of ongoing myocardial ischaemia, a large area of myocardium in jeopardy, and reduced antegrade flow.	I	C

ESC Guidelines ACS 2023
Tweet et al. *Circ Cardiovasc Interv* 2014

Medicinsk behandling

- Data från RCT saknas
- **Trombocythämning**
- **Betablockerare**

- Sätt ut hormonpreparat!

Saw et al. *J Am Coll Cardiol* 2017
Hayes et al. *Circulation* 2018
Wilander et al. *BMJ Open* 2022

Recommendations	Class[a]	Level[b]
Exercise-based cardiac rehabilitation is recommended in all individuals with CAD to reduce cardiac mortality and rehospitalization.[234]	I	A
During the initial period, motivational and psychological support, and individualized recommendations on how to progress the amount and intensity of sports activities, should be considered in patients with CAD.	IIa	B
All sports activities should be considered, at an individually adapted intensity level in low-risk individuals with CCS.	IIa	C

Träningsråd SCAD

- Etablera fysioterapeutkontakt!

Undvik:

- Tunga lyft, valsalva
- Kontaktsport
- Extrempass

Spontaneous Coronary Artery Dissection: Current State of the Science: A Scientific Statement From the American Heart Association

Sharonne N. Hayes, Esther S.H. Kim, Jacqueline Saw, David Adlam, Cynthia Arslanian-Engoren, Katherine E. Economy, Santhi K. Ganesh, Rajiv Gulati, Mark E. Lindsay, Jennifer H. Mieres, Sahar Naderi, Svati Shah, David E. Thaler, Marysia S. Tweet and Malissa J. Wood

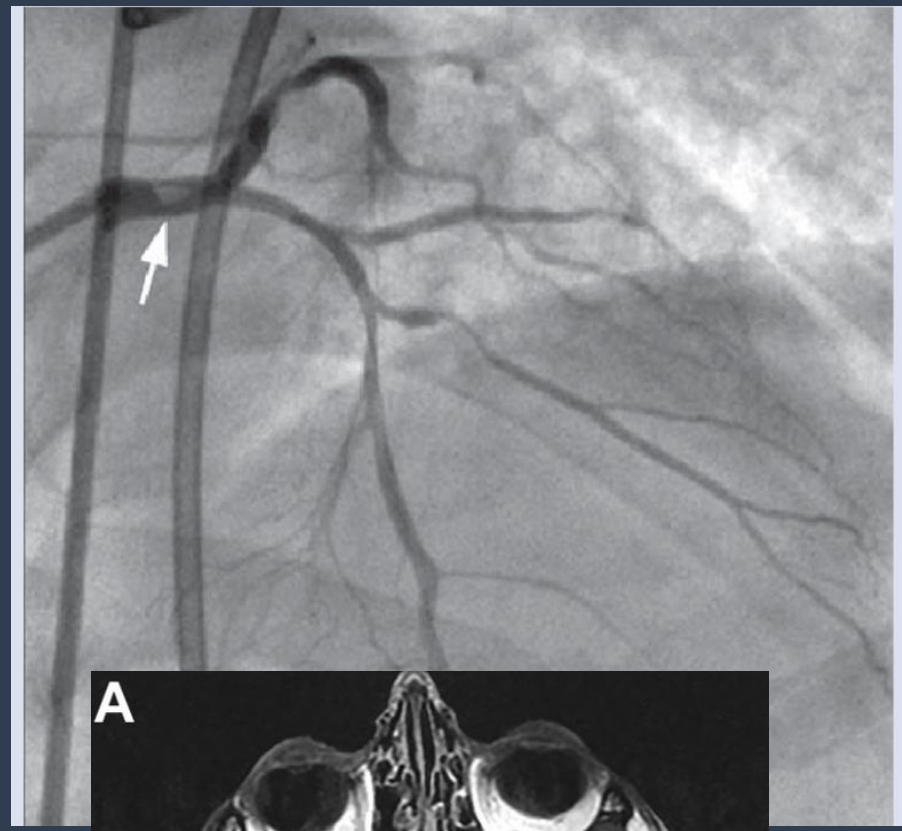
Kranskärlsemboliserin

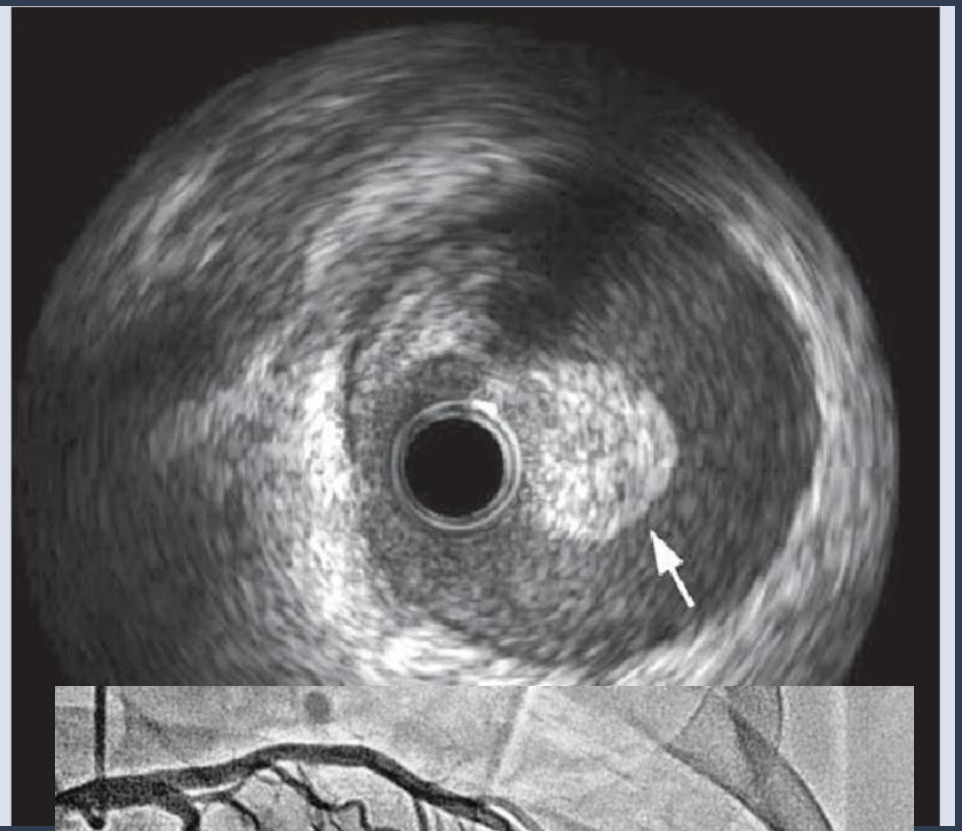
Kranskärlsemboliserings

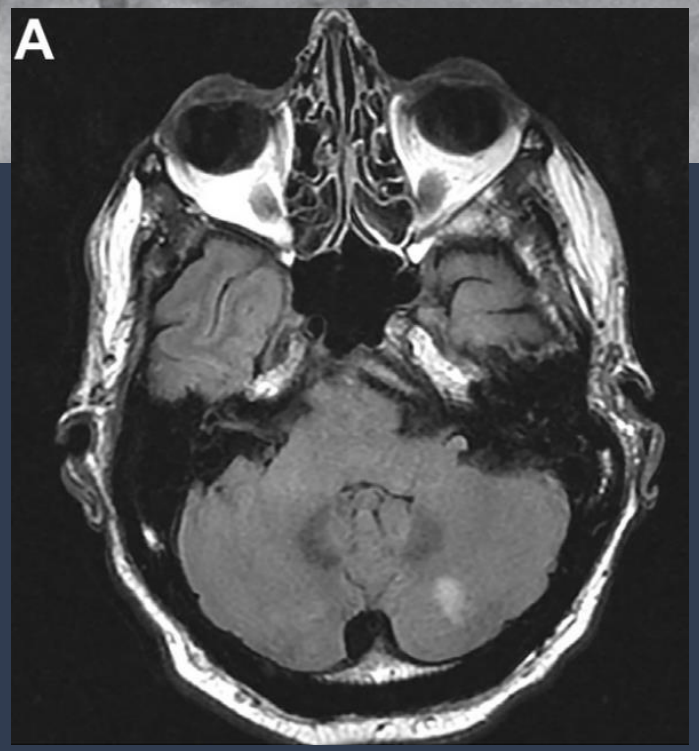
- 3% av AKS
- Men sannolikt underskattat då en del fall felaktigt klassificeras som arteriosklerosrelaterad trombos

- Saknas konsensus/guidelines

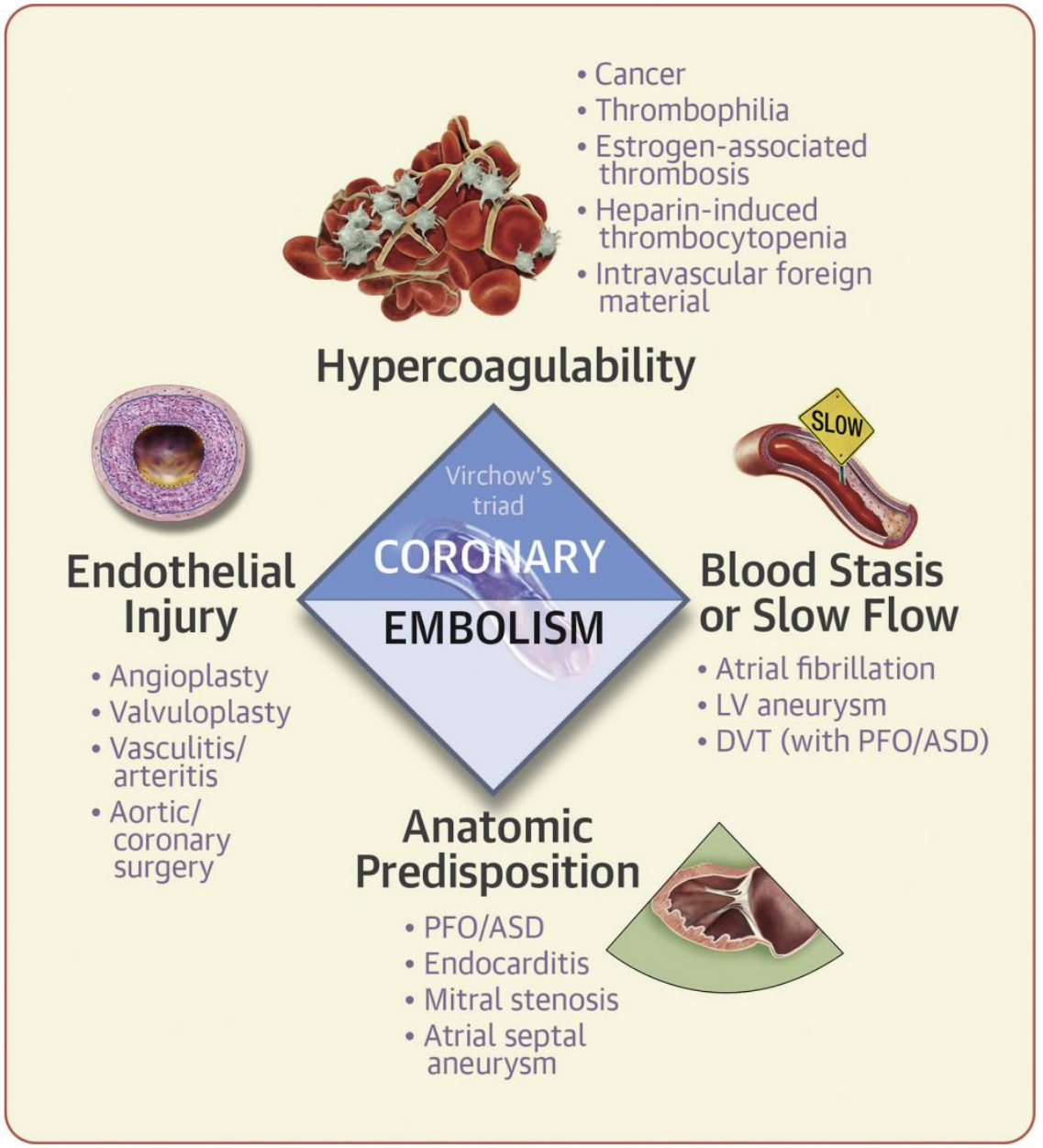
Shibata et al. *Circulation* 2015






A

CENTRAL ILLUSTRATION Anatomic and Pathophysiologic Mechanisms Involved in Coronary Emboli



Raphael, C.E. et al. J Am Coll Cardiol Intv. 2018;11(2):172–80.

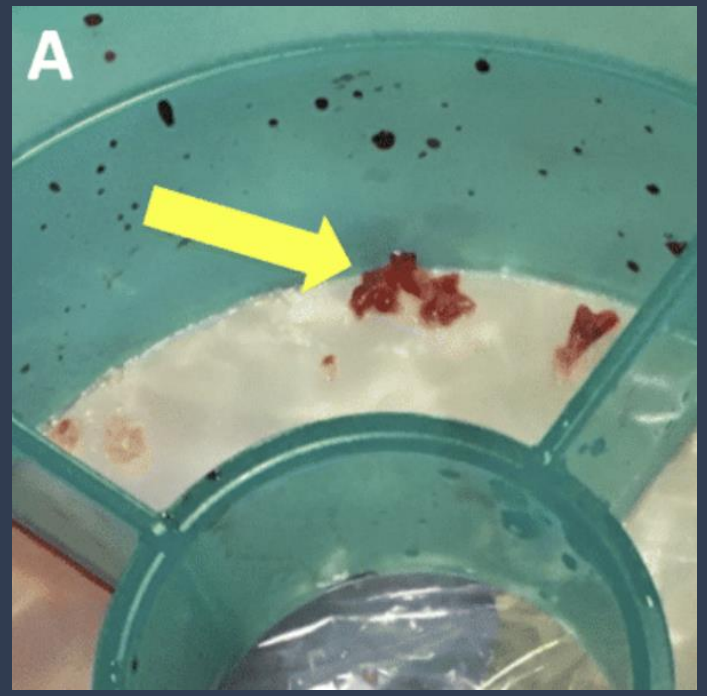
Raphael et al. *J Am Coll Card* 2018

Tromboskälla

- Förmaksflimmer
- Malignitet
- Infektiös endokardit
- Dilaterad vänsterkammare
- Klaffpatologi

Popovic et al *Circ Cardiovasc Interv* 2018
Lacey et al. 2020
Shibata et al. *Circulation* 2015

Behandling



- **Trombaspiration** – obs risk för vidare embolisering
- Distal emboli – enbart antikoagulantia
- **Antikoagulantia** - hur länge – beror på orsak

- Obs! I studien av *Shibata et al* hade majoriteten av patienter med FF och CAE CHADS2 på 0 eller 1

Raphael et al. *J Am Coll Card* 2018
Shibata et al, *Circulation* 2015

EMPIRIC RECOMMENDATIONS FOR TREATMENT OF CORONARY EMBOLISM

- Patients with atrial fibrillation with a low risk of bleeding should be offered long-term oral anti-coagulation, regardless of the $CHADS_2$-VASc score.
- Patients with recurrent coronary embolism with a low risk of bleeding should be offered long-term oral anticoagulation.
- Patients with a reversible risk factor for thrombo-embolic disease (Table 2) at the time of coronary embolism that has subsequently resolved should receive oral anticoagulation for 3 months.
- Patients with persistent risk factors for thrombo-embolic disease should be offered long-term oral anticoagulation.
- Patients who underwent percutaneous coronary intervention (stenting) need to receive antiplatelet agents in addition to oral anticoagulation.
- There is no role for routine thrombophilia testing in patients with coronary embolism.
- If there are concerns regarding bleeding risk or patients are unwilling to take long-term oral anticoagulation, thrombophilia testing may aid individual risk stratification for recurrent thromboembolism.

Antikoagulantia

- Om FF → tillsvidarebehandling oavsett CHADS2-VASc score!
- I övrigt: reversibel eller bestående risk avgör

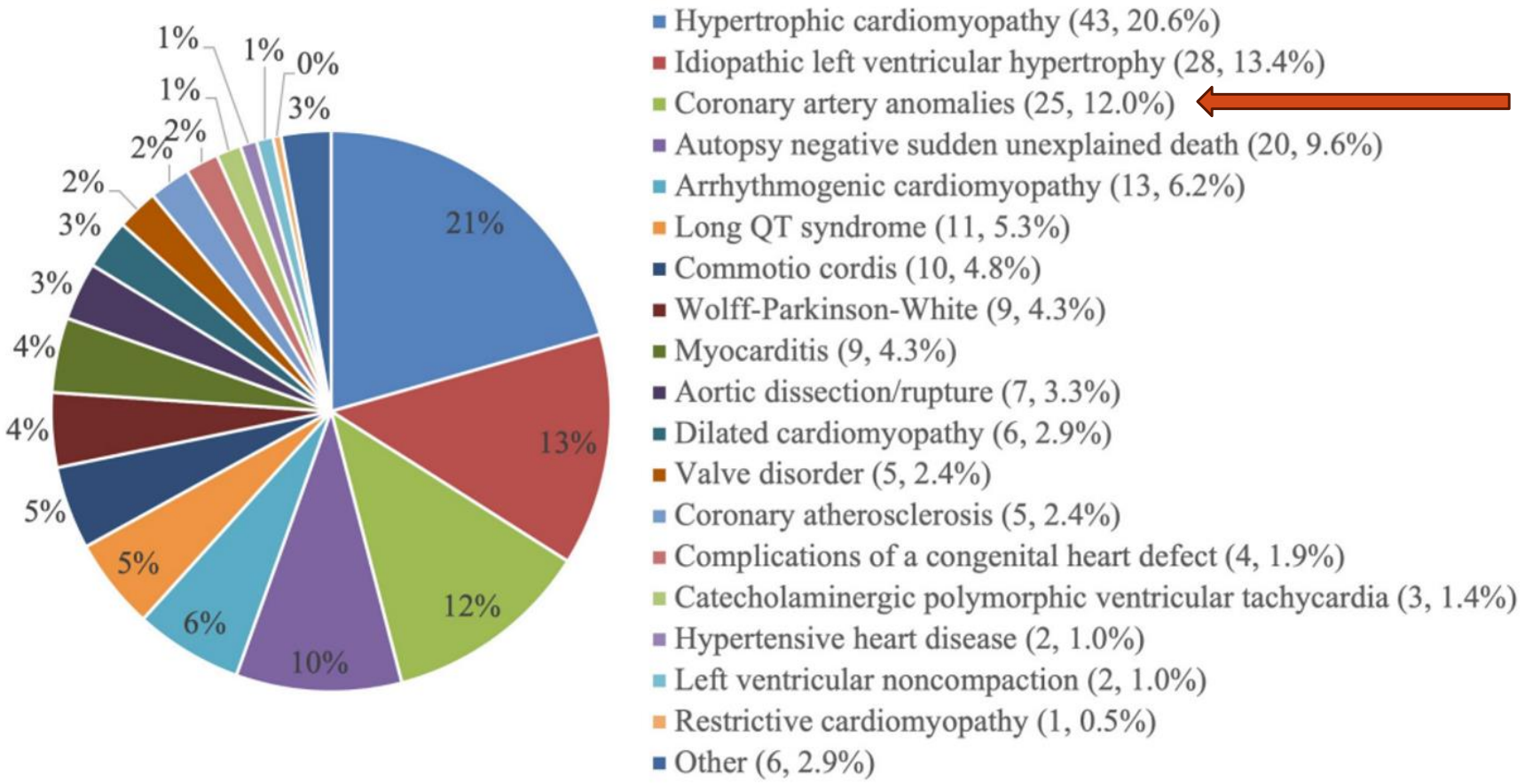
Raphael et al. *J Am Coll Card* 2018

Kranskärlsanomali

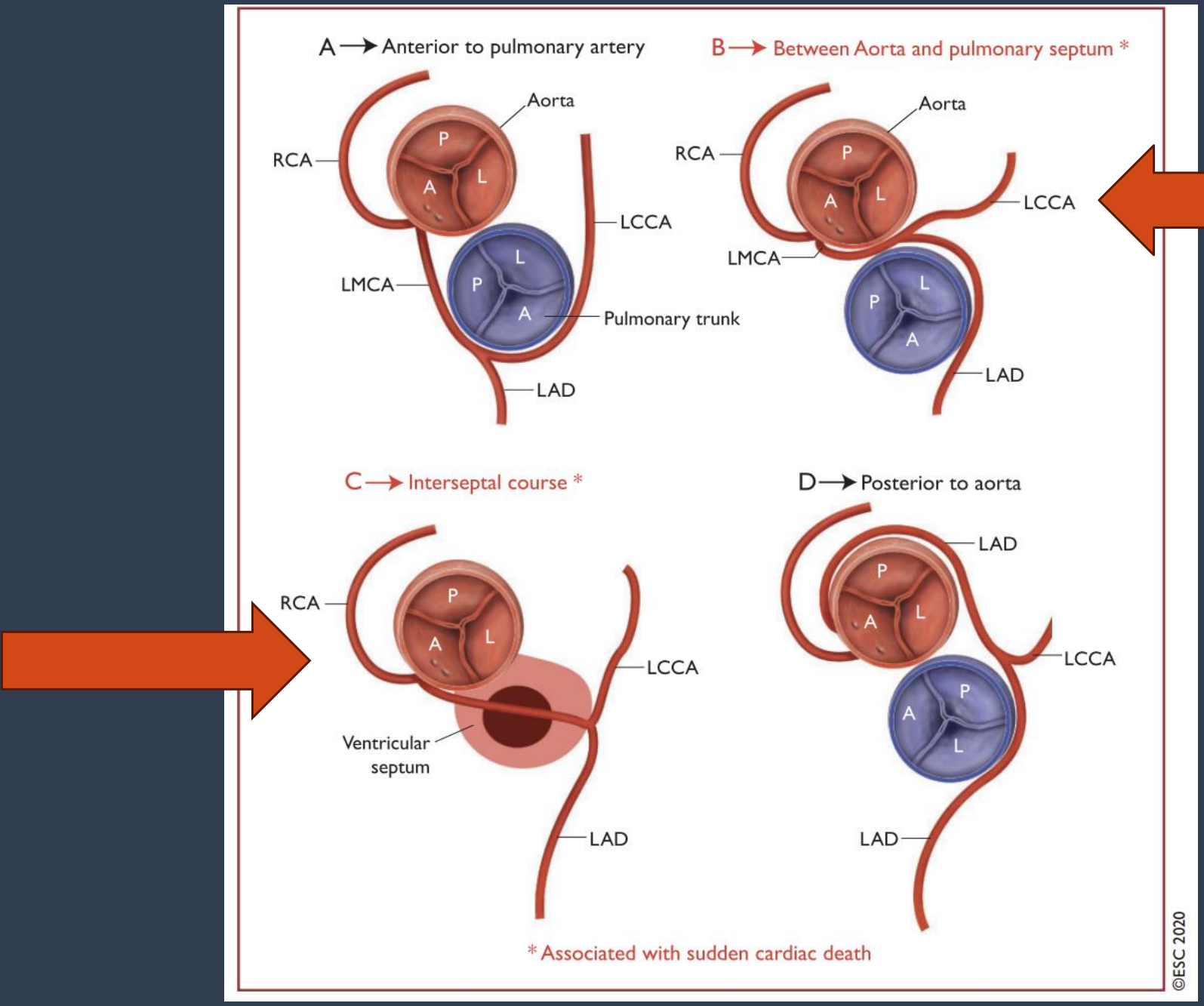
Kranskärlsanomali

- Prevalens <1%
- Majoriteten asymtomatiska
- SCD kan vara första presentationen

Gentile et al, *Circulation* 2021



Peterson DF, *et al*. *Br J Sports Med* 2021;**55**:1196–1203. doi:10.1136/bjsports-2020-102666


A → Anterior to pulmonary artery
Aorta
RCA
P
A
L
LCCA
LMCA
L
P
A
Pulmonary trunk
LAD
B → Between Aorta and pulmonary septum *
Aorta
RCA
P
A
L
LCCA
LMCA
L
P
A
LAD
C → Interseptal course *
RCA
P
A
L
LCCA
Ventricular septum
LAD
D → Posterior to aorta
LAD
P
A
L
LCCA
P
A
L
LAD
* Associated with sudden cardiac death
©ESC 2020

Kranskärlsanomali

- Misstänk vid **idrottsrelaterad** AKS, synkope, hjärtstopp
- CT-kranskärl ger diagnos
- Kirurgisk behandling

Aterosklerotisk kranskärlssjukdom

Aterosklerotisk kranskärlssjukdom

- Vanligaste orsaken till AKS hos individer < 50år

Gulati et al. *Mayo Clin Proc* 2020
Zanchin et al. *Int J Cardiol* 2022

Favorable Cardiovascular Risk Profile in Young Women and Long-term Risk of Cardiovascular and All-Cause Mortality

Martha L. Daviglus, MD, PhD; Jeremiah Stamler, MD; Amber Pirzada, MD; et al

» Author Affiliations | Article Information

JAMA. 2004;292(13):1588-1592. doi:10.1001/jama.292.13.1588

- Samma riskfaktorer som för äldre
- Familjär hyperkolesterolemi

Table 2. **Relative Risk for Death from Coronary Heart Disease within 20 Years among Young and Middle-Aged Men in the Chicago Heart Association Project in Industry**

Variable	Relative Risk (95% CI)*		*P* Value†
	Young Men (18–39 Years of Age)	Middle-Aged Men (40–59 Years of Age)	
Age (per 6-year increase)	1.63 (1.30–2.04)	1.60 (1.47–1.75)	>0.2
Serum cholesterol level (per 1.04-mmol/L [40-mg/dL] increase)	1.92 (1.64–2.24)	1.18 (1.12–1.25)	<0.001
Systolic blood pressure (per 20–mm Hg increase)	1.32 (1.07–1.64)	1.29 (1.20–1.38)	>0.2
Diastolic blood pressure (per 10–mm Hg increase)‡	1.20 (1.02–1.42)	1.26 (1.18–1.33)	>0.2
Cigarettes smoked per day (per 10-cigarette increase)	1.36 (1.21–1.52)	1.25 (1.19–1.31)	0.17
Body mass index (per 4-kg/m^2 increase)	1.01 (0.82–1.23)	1.04 (0.96–1.13)	>0.2
Major electrocardiographic abnormalities	0.72 (0.27–1.97)	2.75 (2.27–3.33)	0.01
Minor electrocardiographic abnormalities			
Education (per 3-year increase)			
Black ethnicity			

Risk Factors for Coronary Heart Disease in Men 18 to 39 Years of Age

Elena L. Navas-Nacher, MS, Laura Colangelo, MS, Craig Beam, PhD, and Philip Greenland, MD ✉

Author, Article, and Disclosure Information

https://doi.org/10.7326/0003-4819-134-6-200103200-00007

Överväg:

- Förlängd DAPT
- Rivaroxaban 2,5mg

Table S7 Treatment options for extended dual antithrombotic or antiplatelet therapies

Drug	Dose	Indication	NNT (ischaemic outcomes)
DAT regimens for extended treatment (including aspirin 75–100 mg o.d.)			
Rivaroxaban (COMPASS trial)	2.5 mg b.i.d.	Patients with CAD or symptomatic PAD at high risk of ischaemic events	77
DAPT regimens for extended treatment (including aspirin 75–100 mg o.d.)			
Clopidogrel (DAPT trial)	75 mg/d	Post-MI in patients who have tolerated DAPT for 1 year	63
Prasugrel (DAPT trial)	10 mg/d (5 mg/d if body weight <60 kg or age >75 years)	Post-PCI for MI in patients who have tolerated DAPT for 1 year	63
Ticagrelor (PEGASUS-TIMI 54)	60/90 mg b.i.d.[a]	Post-MI in patients who have tolerated DAPT for 1 year	84

Table S8 Risk criteria for extended treatment with a second antithrombotic agent

High thrombotic risk (Class IIa)	Moderate thrombotic risk (Class IIb)
Complex CAD and at least one criterion	Non-complex CAD and at least one criterion
Risk enhancers	
Diabetes mellitus requiring medication History of recurrent MI Any multivessel CAD Premature (<45 years) or accelerated (new lesion within a 2-year timeframe) CAD Concomitant systemic inflammatory disease (e.g. human immunodeficiency virus, systemic lupus erythematosus, chronic arthritis) Polyvascular disease (CAD plus PAD) CKD with eGFR 15–59 mL/min/1.73 m^2	Diabetes mellitus requiring medication History of recurrent MI Polyvascular disease (CAD plus PAD) CKD with eGFR 15–59 mL/min/1.73 m^2
Technical aspects	
At least three stents implanted At least three lesions treated Total stent length >60 mm History of complex revascularization (left main, bifurcation stenting with ≥2 stents implanted, chronic total occlusion, stenting of last patent vessel) History of stent thrombosis on antiplatelet treatment	


Glöm inte
droganamnes!

Circulation
Volume 103, Issue 4, 30 January 2001; Pages 502-506
https://doi.org/10.1161/01.CIR.103.4.502

CLINICAL INVESTIGATION AND REPORTS

Cocaine Use and the Likelihood of Nonfatal Myocardial Infarction and Stroke

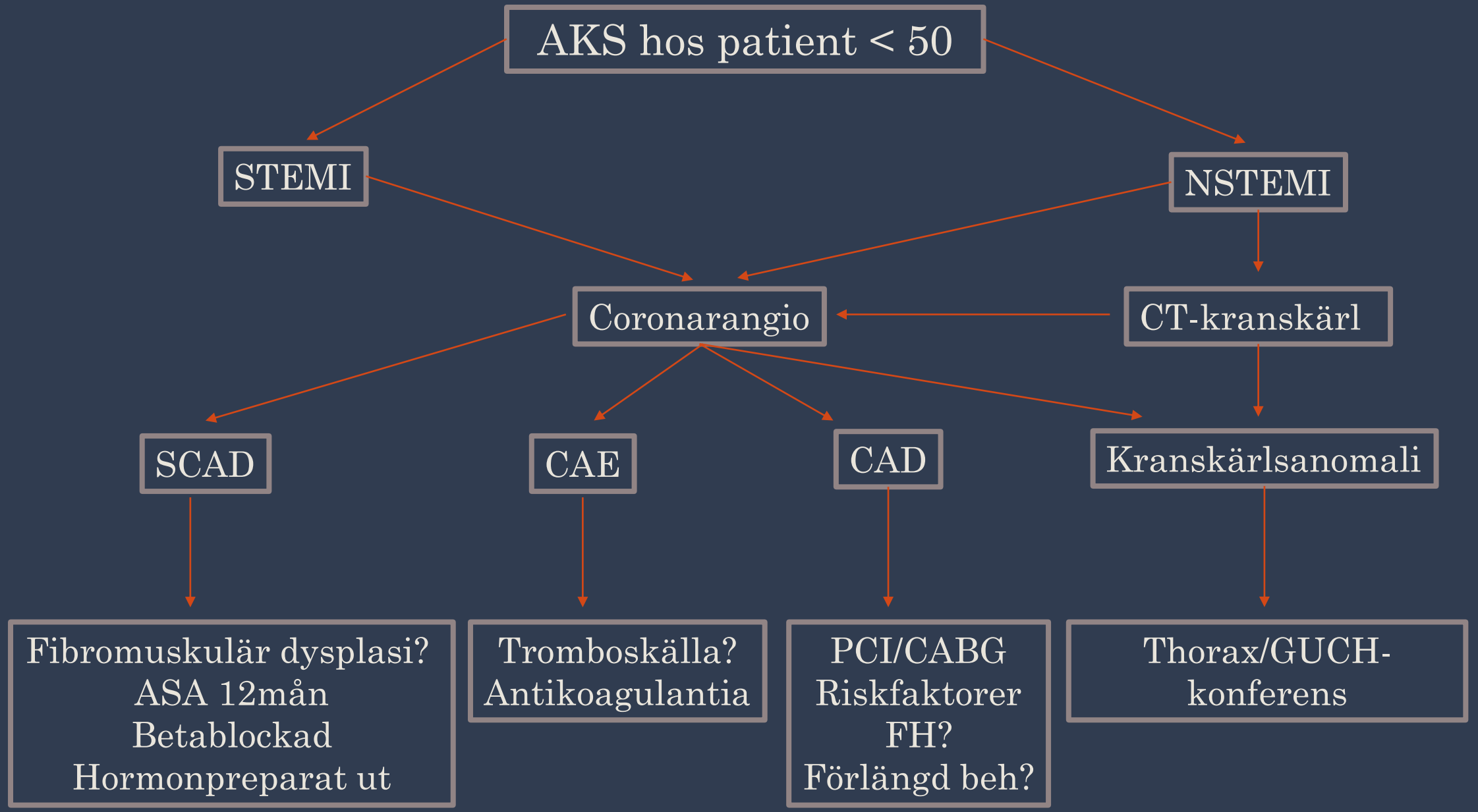
Data From the Third National Health and Nutrition Examination Survey

Adnan I. Qureshi, M. Fareed K. Suri, Lee R. Guterman, and L. Nelson Hopkins

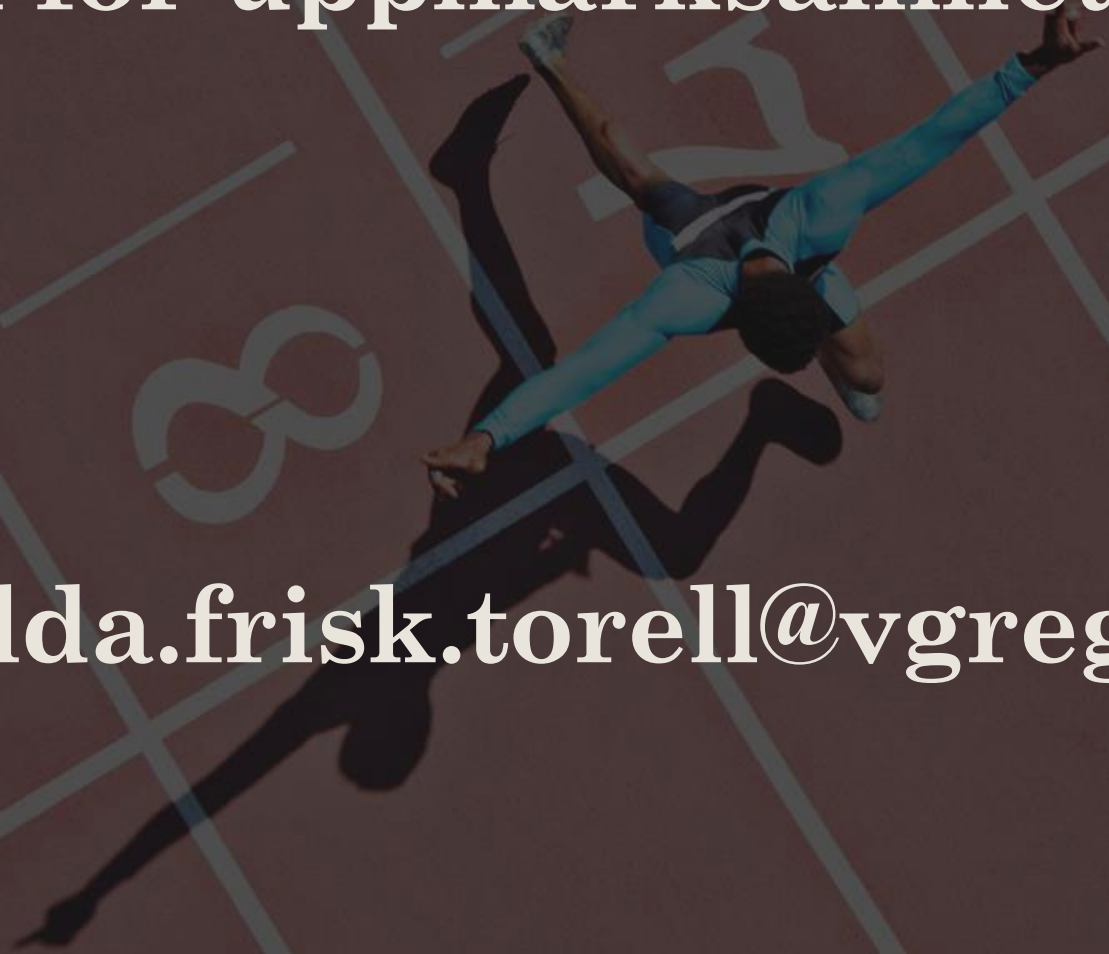
Table 2. Association Between Cocaine Use and Nonfatal MI in Persons Aged 18 to 45 Years (Table view)

	Sample Size	No. of MIs	Age-Adjusted OR (95% CI)	Multivariate-Adjusted OR (95% CI)[1]
Nonusers	8822	39 (0.44%)	Reference	Reference
Frequent users	532	6 (1.13%)	6.4 (1.25–53)	6.9 (1.3–58)
Infrequent users	731	1 (0.14%)	0.13 (0.002–1.1)	0.1 (0.002–0.8)

[1] Adjusted for age, sex, race, insurance status, education, smoking (former and current), diabetes mellitus, hypertension, and hyperlipidemia.


AKS hos patient < 50
STEMI
NSTEMI
Coronarangio
CT-kranskärl
SCAD
CAE
CAD
Kranskärlsanomali
Fibromuskulär dysplasi?
ASA 12mån
Betablockad
Hormonpreparat ut
Tromboskälla?
Antikoagulantia
PCI/CABG
Riskfaktorer
FH?
Förlängd beh?
Thorax/GUCH-
konferens

Tack för uppmärksamheten!



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