AFFIRMO

AF integrated approach in Frail, multimoRbid and polyMedicated Older people

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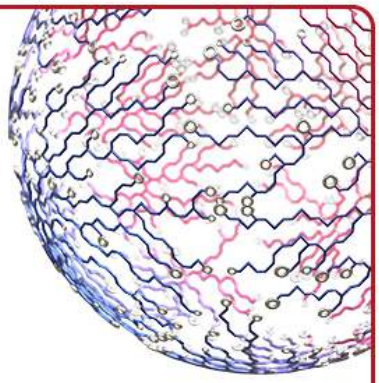
#ESCCongress

Presenter: Gregory YH Lip (University of Liverpool - Liverpool, UK)



Conclusion

A mobile-health integrated care approach based on the ABC pathway (iABC) plus Comprehensive Geriatric Assessment (CGA) did not reduce unplanned hospitalisations vs usual care.

Implications

The iABC system was designed to improve guideline adherence but there was high baseline guideline adherence and low event rates, with low use of the mobile app and limited efficacy of CGA in this well-preserved population.

OBJECTIVE

To evaluate the efficacy of a mobile-health intervention adapting the ABC pathway and combining CGA in older patients with AF and comorbidities.

METHODS

- Aged ≥65 years
- Any AF type
- At least 1 comorbidity

1,260 patients
Cluster randomised trial
6 European centres

- **iABC + CGA**
  - App
  - Clinician dashboard
- **Usual care**

RESULTS

- Guideline adherence was very high at baseline in both arms

	iABC	Usual care	
Primary endpoint All-cause unplanned hospitalisations at 1 year	17.1%	18.2%	OR 0.95 95% CI 0.61–1.49 p=0.84

NEXAF

Long-term exercise in patients with non-permanent AF

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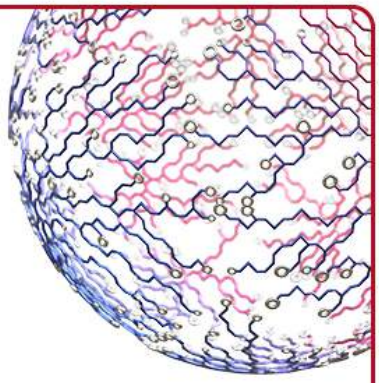

Presenter: Bjarne Nes (Norwegian University of Science and Technology - Trondheim, Norway)

Conclusion

A 12-month exercise programme reduced the total AF burden and improved cardiopulmonary fitness but did not increase AF-specific QoL vs usual care.

Implications

This hybrid model was feasible and may enable wider use of exercise-enabled rehabilitation.

OBJECTIVE

To evaluate the effect of a long-term supervised and eHealth-based exercise intervention on AF burden and AF-specific QoL.

METHODS

- Non-permanent AF
- Physical activity level less than recommended

295 patients randomised 1:1

3 centres in Norway

Exercise → **Home-based eHealth**
Supervised sessions for 4 weeks

Usual care
No structured or supervised exercise

RESULTS

Exercise vs usual care at 12 months

Primary endpoints

Time in AF

3.9% with exercise

7.1% with usual care

p=0.016

Cardiopulmonary fitness

Overall AFEQT score

+5.6 with exercise

+4.4 with usual care

p=0.43

Hospitalisations

PVI-SHAM-AF

Pulmonary vein isolation vs sham in AF

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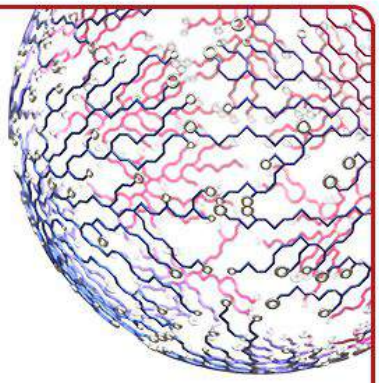

Presenter: Rolf Wachter (University of Leipzig Medical Centre - Leipzig, Germany)

Conclusion

Catheter ablation did not improve AF-related quality of life compared with a sham intervention, despite reducing AF recurrence.

Implications

These data should be discussed with patients when catheter ablation is being considered.

OBJECTIVE

To investigate improvements in AF-related quality of life with catheter ablation compared with a sham procedure.

METHODS

- Symptomatic paroxysmal or persistent AF

262 patients randomised 2:1

9 sites in Germany and Poland

- **Catheter ablation**
- **Sham procedure**

Primary endpoint

Change in AF Effect on the Quality of Life (AFEQT) questionnaire from baseline to 6 months

RESULTS

	Catheter ablation	Sham procedure	
AFEQT summary score at baseline and 6 months	61.3 → 81.1	59.2 → 74.9	p=0.36
Freedom from AF at 6 months	73%	52%	

Blood pressure-lowering treatment across the spectrum of CV risk

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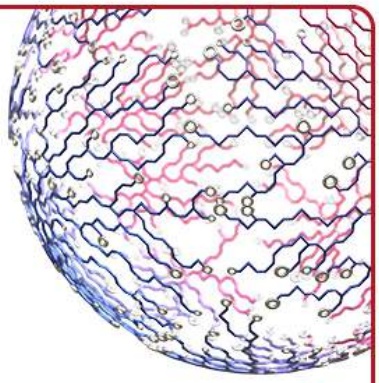
Presenter: Kazem Rahimi (University of Oxford - Oxford, UK)



Conclusion

The relative benefits of pharmacological BP lowering were seen regardless of CV risk. Absolute benefits were larger at higher baseline risk.

Implications

Risk-guided management could prevent CV events missed under conventional strategies while avoiding unnecessary treatment in those least likely to benefit.

OBJECTIVE

To examine whether the benefits of BP lowering extend across the spectrum of CV risk.

METHODS

- Meta-analysis
- Trials of antihypertensive treatment vs comparator

51 trials identified

→ **357,440 participants** classified into 10 categories (from <4% to >27%) by predicted 5-year CV risk at randomisation

→ **Primary outcome**
Major CVD
(nonfatal or fatal stroke, nonfatal or fatal IHD, or HF resulting in death or hospitalisation)

Median follow-up: 4.2 years

RESULTS

- **Major CVD: HR 0.90 (95% CI 0.88–0.92) per 5 mmHg reduction in SBP**
- **Homogeneous across predicted-risk categories**

p for interaction >0.99

- **Absolute benefits increased progressively with baseline predicted risk**

Lowest risk decile (<4%): absolute risk reduction 0.4 percentage points
Highest risk decile (>27%): absolute risk reduction 2.6 percentage points

p for trend <0.001

CRHCP

Long-term blood pressure control and dementia risk

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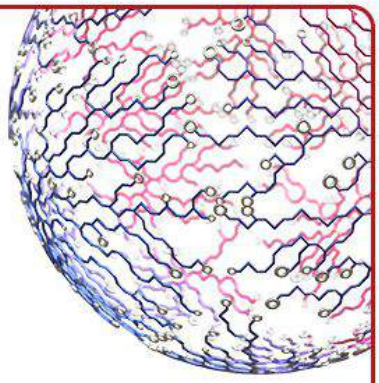

Presenter: Shanshan Zhong (The First Affiliated Hospital of China Medical University - Shenyang, China)

Conclusion

A community-based intervention delivered by non-physician HCPs resulted in substantial reductions in blood pressure and also in dementia.

Implications

Wider use of this scalable intervention globally may help to reduce the increasing burden of dementia.

OBJECTIVE

To assess whether intensive BP lowering reduces the incidence of dementia.

METHODS

326 villages in rural China randomised

33,995 adults

- Aged ≥40 years
- Untreated ≥140/90 mmHg (≥130/80 mmHg if treated or high risk)

Community intervention

Trained non-physician HCPs adjusted BP medication

Active trial: 4 y → Observation: 3 y

Usual care

RESULTS

At the end of 7-y period	Community intervention	Usual care	
SBP reduction	17.6 mmHg	2.4 mmHg	
Dementia	8.85%	10.55%	p<0.001

ECLIPSE-CKD

Salt substitute in CKD

Presenter: Dong Shui (Harbin, China)

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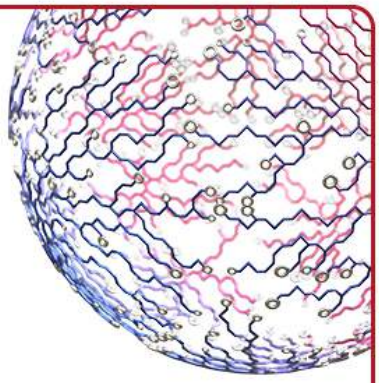


Conclusion

In adults with hypertension and CKD, salt substitution lowered BP and modestly increased serum potassium over 3 months, with no episodes of hyperkalaemia.

Implications

Salt substitution may provide a scalable adjunct to BP management. Further trials are required to establish long-term effects on CV and kidney outcomes, and safety.

OBJECTIVE

To assess the efficacy and safety of salt substitutes in patients with CKD.

METHODS

- Hypertension
- eGFR 45–89 mL/min/1.73 m²

640 patients randomised 1:1

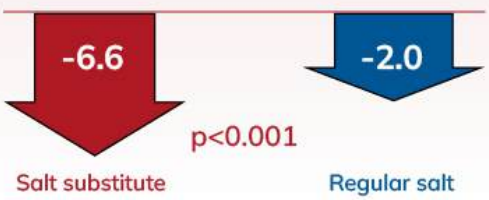
7 centres in China

- **Salt substitute**: 75% sodium chloride and 25% potassium chloride
- **Regular salt**: 100% sodium chloride

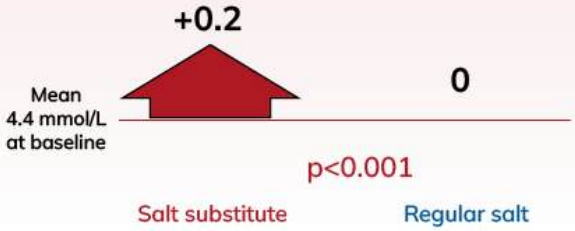
RESULTS

Primary endpoint

Change in SBP (mmHg) from baseline to month 3



Change in serum potassium (mmol/L) from baseline to month 3



No episodes of hyperkalaemia were observed

SHASTA-3/4

Plozasiran in severe hypertriglyceridaemia

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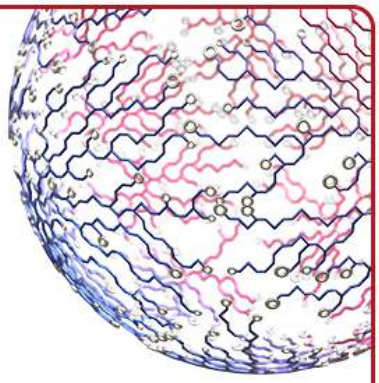

Presenter: Gerald Watts (University of Western Australia - Perth, Australia)

Conclusion

Plozasiran treatment resulted in substantial reductions in triglyceride levels in patients with severe hypertriglyceridaemia after 1 year.

Implications

Plozasiran may represent a promising therapy for patients with limited current treatment options.

OBJECTIVE

To assess plozasiran in patients with severe hypertriglyceridaemia.

METHODS

- Severe hypertriglyceridaemia (TG ≥ 500 mg/dL)

757 patients randomised 2:1
24 countries

- **Plozasiran 25 mg SC every 3 months**
- **Placebo SC every 3 months**

RESULTS

	Plozasiran	Placebo
Primary endpoint Median triglyceride reductions	79–81%	~27%
Acute pancreatitis events	Risk ratio 0.22 95% CI 0.07–0.67; p=0.008	

ASPIRED

Immediate ambulatory ECG monitoring vs standard care in unexplained syncope

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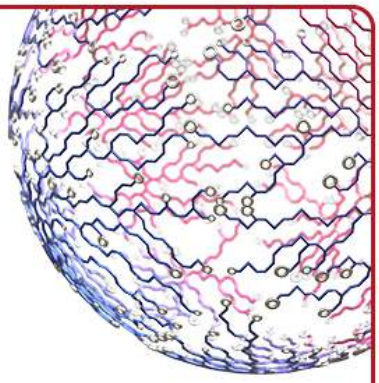

Presenter: Matthew Reed (The Usher Institute - Edinburgh, UK)

Conclusion

Cardiac monitoring for patients with unexplained syncope did not reduce recurrent syncope but improved detection of arrhythmias and was associated with lower all-cause mortality at 1 year.

Implications

These findings suggest that early monitoring should be considered as part of routine ED care for patients with unexplained syncope.

OBJECTIVE

To investigate whether initiating cardiac monitoring at the index ED visit in adults with unexplained syncope improves outcomes.

METHODS

- Presented to ED
- Unexplained syncope

2,233 patients

45 centres in UK

randomised in ED: 1:1

- **ECG monitor for 14 days**
- **Standard care**

1 year

RESULTS

At 1 year	ECG monitor	Standard care
Primary endpoint Mean number of self-reported syncope episodes	1.37 p=0.43 ↔	1.58
All-cause death	1.5% ↓	2.9%
Clinically relevant cardiac arrhythmias detected	22.0% ↑	9.0%

DANISH-CRT

Targeted LV lead placement for biventricular pacing for HF

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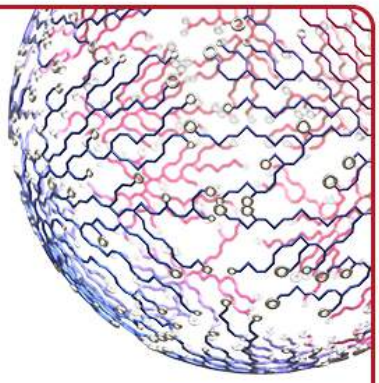

Presenter: Jens Cosedis Nielsen (Aarhus University Hospital - Aarhus, Denmark)

Conclusion

Targeted placement of the LV lead at the latest electrically activated site in the coronary sinus branches did not improve outcomes in patients with an indication for CRT vs standard LV lead placement.

Implications

Data from the trial will be analysed to assess if there are any patient groups that benefit most from CRT.

OBJECTIVE

To test whether targeting the LV lead at the site of latest electrical activation in the coronary sinus branches improves outcomes in patients with an indication for CRT.

METHODS

- HF
- Wide QRS
- On GDMT
- Eligible for biventricular pacing

1,000
patients
randomised 1:1
5 centres in Denmark

Targeted LV lead placement
at latest electrically activated site in coronary sinus branches

Standard LV lead placement

RESULTS

Median follow-up of 45.8 months	Targeted lead placement	Standard lead placement	
Primary endpoint Death or first unplanned hospitalisation for heart failure	27.9%	25.5%	HR 1.10 95% CI 0.86–1.39; p=0.45

HIS Alternative II

Direct His/LBB pacing as an alternative to BiV pacing in HFrEF and typical LBBB

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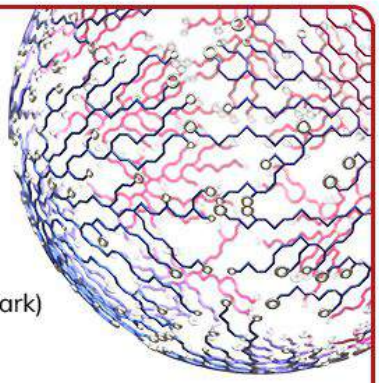

Presenter: Michael Vinther (Rigshospitalet - Copenhagen University Hospital - Denmark)

Conclusion

In patients with HFrEF and LBBB referred for CRT, conduction system pacing (CSP) was noninferior to biventricular pacing (BiVP) in reducing LVESV after 6 months.

Implications

CSP offers an effective alternative to BiVP for CRT-eligible patients with HFrEF and LBBB.

OBJECTIVE

To test whether CSP (via His bundle or LBB pacing) was noninferior to BiVP in patients with HFrEF and LBBB.

METHODS

- HF and LVEF ≤35%
- Sinus rhythm
- LBBB
- On GDMT

150
patients
randomised 2:1
2 centres in Denmark and UK

- **CSP via His-CRT or LBB-CRT**
- **BiVP-CRT**

RESULTS

Primary endpoint	CSP-CRT	BiVP-CRT	
LVESV change from baseline at 6 months	35 ± 22%	34 ± 22%	p<0.01 for noninferiority

CSP-CRT vs BiVP-CRT		
	Similar LVEF, QRS width, symptoms and function capacity improvements ✓	Similar safety ✓

SyncAV PMT

Clinical benefit of dynamic AV optimisation in CRT

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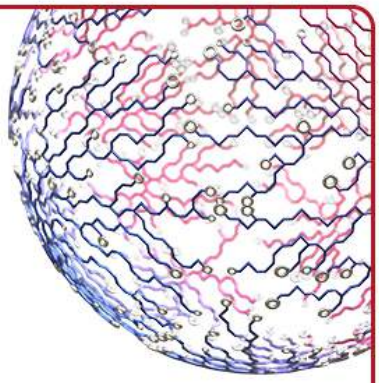


Presenter: Niraj Varma (Cleveland Clinic - Cleveland, USA)

Conclusion

CRT efficacy was robust and similar in both arms overall, but when PR intervals were ≥185 ms, conventional programming resulted in incomplete electrical resynchronisation that could be corrected by SyncAV CRT to improve clinical outcomes.

Implications

SyncAV CRT enables dynamic triple fusion pacing to improve outcomes among the 50% of CRT recipients with longer PR intervals.

OBJECTIVE

To assess dynamic AV interval optimisation with SyncAV vs conventional fixed AV interval.

METHODS

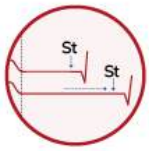
- LBBB
- LVEF ≤35%
- PR ≤280 ms

1,288 patients randomised 1:1

96 centres worldwide

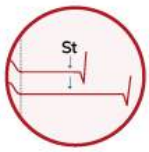
SyncAV

Dynamic triple fusion pacing



Fixed AV interval

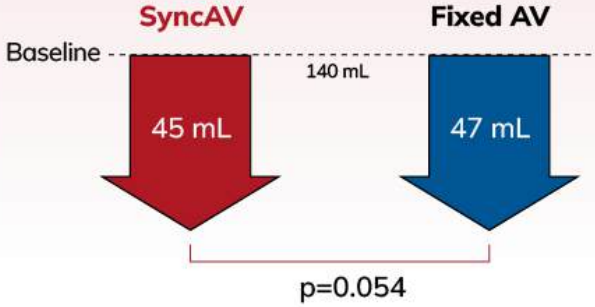
Standard of care



RESULTS

Overall

Similar LVESV reduction at 12 months



Baseline PR ≥185 ms

SyncAV reduced all-cause mortality, HF hospitalisations, persistent AF and negative echocardiographic CRT response

Syncope-Stopper

Upfront pacing vs standard care in high-risk unexplained syncope

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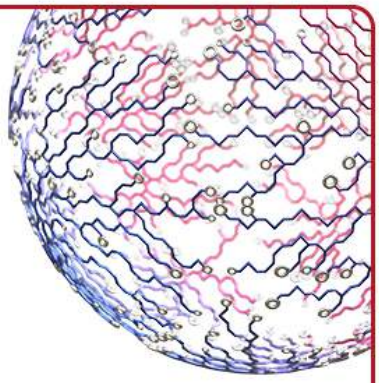

Presenter: Jeremy William (The Alfred Hospital - Melbourne, Australia)

Conclusion

Upfront pacemaker implantation significantly reduced recurrent syncope and incident severe bradyarrhythmia in patients with unexplained syncope selected by the DROP score.*

Implications

The DROP score enables targeted, proactive pacing to prevent recurrent syncope and associated morbidity.

OBJECTIVE

To assess whether upfront pacing improves outcomes in high-risk patients without documented bradycardia.

METHODS

- Aged ≥55 y
- Unexplained syncope in last 1 y
- DROP risk score ≥2

200 patients randomised 1:1

3 centres in Australia

- **Upfront pacemaker implantation within 30 days**
- **Standard care: Holter monitoring or ILR**

RESULTS

	Upfront pacemaker	Standard care	
Primary endpoint Recurrent syncope, bradycardia requiring pacemaker, CV death and device-related complications at 1 y	**17.2%**	31.7%	p=0.014
Recurrent syncope at 1 y	**11.1%**	21.8%	p=0.037
Repeat hospitalisations at 1 y	**36.4%**	63.4%	p<0.001

*Xiao X, et al. Heart Lung Circ. 2022;31:999–1005.

CoCAP

Graft patency in ACS patients treated with DAPT or aspirin alone after CABG

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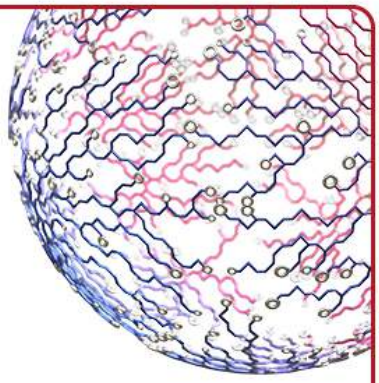

Presenter: Jonas Holm (Linkoping University Hospital - Linkoping, Sweden)

Conclusion

Ticagrelor plus aspirin did not improve graft patency compared with aspirin alone after CABG.

Implications

DAPT does not improve graft patency after CABG.

OBJECTIVE

To evaluate whether DAPT improves graft patency vs aspirin alone after CABG in a substudy of the TACSI trial.

METHODS

- ACS

368 patients randomised 1:1

6 centres
Sweden and Norway

CABG

- **Ticagrelor + aspirin**
- for 12 months
- **Aspirin**

→ Coronary CT angiography

Mean 20 months after CABG

RESULTS

	Ticagrelor + aspirin	Aspirin alone
Primary endpoint Patient-level vein graft patency (<50% stenosis)	83.3%	81.6%
	p=0.70	

CorCal

Pooled cohort equations vs CAC score in ASCVD primary prevention

Presenter: Joseph B Muhlestein (Intermountain Medical Center - Murray, USA)

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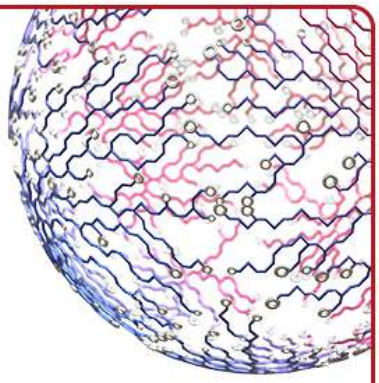

Conclusion

There was no difference in MACE when statin initiation was based on CAC score compared with traditional risk factor assessment.

Implications

Insights from the trial could be used to plan further studies to improve on current risk assessment.

OBJECTIVE

To compare the effect on MACE of using the CAC score or the pooled cohort equations to guide statin initiation.

METHODS

- Without known ASCVD, diabetes or statin therapy
- Registered with Intermountain Health Care, USA

5,772 patients randomised 1:1

CAC score
used to guide statin initiation

Pooled cohort equations
used to guide statin initiation

RESULTS

Follow-up: 4.2 years	CAC score	Pooled cohort equations	
Primary endpoint MACE All-cause mortality, MI, stroke and arterial revascularisation	2.7%	2.7%	p for noninferiority = 0.045

CAC score vs pooled cohort equations

↓ Statin initiation

↑ Statin adherence

EVAOLD

Evaluation of reperfusion strategies in older patients

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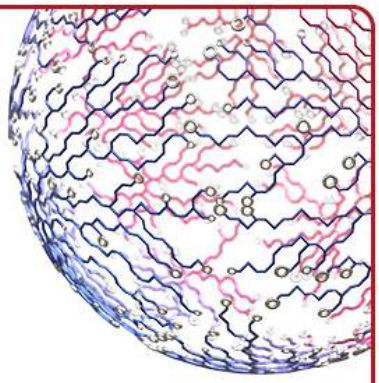
Presenter: Gilles Barone-Rochette
(University Hospital of Grenoble - La Tronche, France)



Conclusion

An imaging-guided strategy was not noninferior to routine invasive management for preventing major CV events in older patients with NSTEMI.

Implications

If clinically feasible, routine invasive management should not be replaced by an imaging-guided strategy.

OBJECTIVE

To compare an imaging-guided selective strategy with routine invasive management in older patients with NSTEMI.

METHODS

- ≥80 years
- NSTEMI

572 patients analysed
25 centres in France

1:1

Stress imaging-guided selective invasive strategy
- Angiography
- No angiography

Routine invasive strategy
- All angiography

RESULTS

	Stress imaging-guided selective invasive strategy	Routine invasive strategy	
Primary endpoint All-cause death, nonfatal MI or nonfatal stroke at 1 y	24.1%	20.7%	HR 1.22 95% CI 0.86–**1.72**

Noninferiority not met
Noninferiority criterion: <1.24

- The trial was stopped for futility at the first prespecified interim analysis

ISOLEDS

IVUS vs OCT guidance for PCI of distal left main bifurcation lesions

Presenter: Yong Zeng (Beijing AnZhen Hospital, Capital Medical University - Beijing, China)

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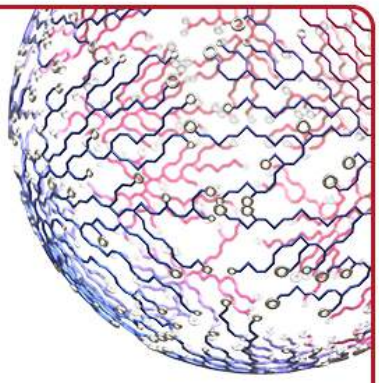


Conclusion

Optical coherence tomography (OCT) was noninferior to intravascular ultrasound (IVUS) to guide PCI for true distal left main bifurcation lesions.

Implications

OCT may be considered an alternative to IVUS for imaging these lesions.

OBJECTIVE

To determine whether image-guided PCI using OCT was noninferior to IVUS in patients with left main bifurcation lesions.

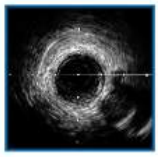
METHODS

- True distal left main bifurcation lesion

664
patients
randomised 1:1
24 centres in China

OCT

IVUS



RESULTS

	OCT	IVUS	
Primary endpoint Target lesion failure at 1 year Cardiac death, target lesion MI or clinically driven target lesion revascularisation	14.4%	19.6%	p for noninferiority = 0.0003

DISCO and meta-analysis

Coronary angiography after resuscitated OHCA without ST-elevation

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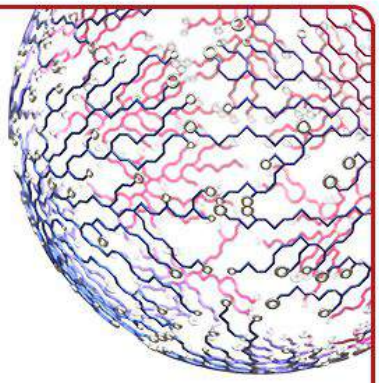

Presenters: Sten Rubertsson (Uppsala University - Uppsala, Sweden) and Lente Pol (Radboud University Medical Centre - Nijmegen, The Netherlands)

Conclusion

In unconscious OHCA survivors without ST-elevation, immediate coronary angiography did not improve 30-day survival vs a deferred strategy.

Implications

The findings support current guideline recommendations against routine immediate coronary angiography in these patients.

OBJECTIVE

To compare immediate vs deferred coronary angiography in unconscious patients after an OHCA without an ST-elevation.

DISCO Trial

- Unconscious patients after OHCA
- Return of spontaneous circulation
- No ST-elevation

1,006 patients randomised 1:1
23 centres in Denmark, Sweden and The Netherlands

- **Immediate coronary angiography (<120 mins)**
- **Deferred coronary angiography (≥72 hours)**

	Immediate	Deferred	
Primary endpoint: 30-day survival	54.6%	53.6%	HR 0.95 95% CI 0.74–1.21; p=0.67

Meta-analysis

Meta-analysis

- Included DISCO plus 4 other trials (2,173 patients)
- **Results were consistent with the DISCO trial**

HeartRunner

OHCA survival following community first responder activation

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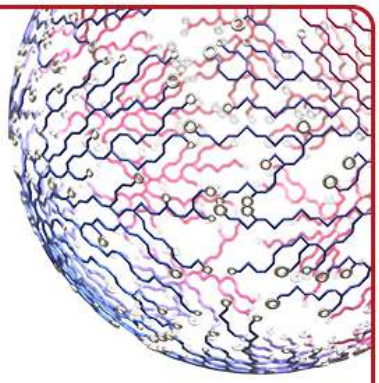

Presenter: Fredrik Folke (Herlev Gentofte University Hospital - Copenhagen, Denmark)

Conclusion

Community first responders did not improve 30-day survival after out-of-hospital cardiac arrest.

Implications

Further studies could assess the effect of first responders in regions with slower ambulance response times.

OBJECTIVE

To assess the impact of first responder activation on outcomes after out-of-hospital cardiac arrest.

METHODS

- Out-of-hospital cardiac arrest
- In Capital Region in Denmark

2,060 emergency calls randomised 1:1

First responder activation plus standard response

No first responder activation

RESULTS

	When estimated responder arrival time was <3 mins		When estimated responder arrival time was 3–9 mins	
	First responder activation	No first responder activation	First responder activation	No first responder activation
Primary endpoint 30-day survival	15%	17%	13%	14%

LAACS-2

Left atrial appendage closure with surgery

ESC European Society of Cardiology

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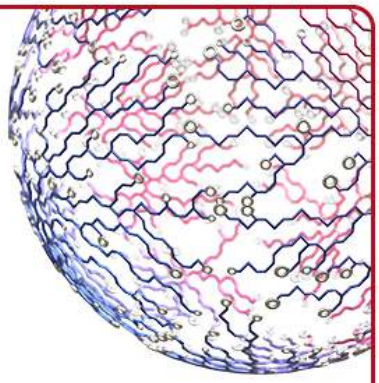
Presenter: Helena Dominguez (Bispebjerg University Hospital - Copenhagen, Denmark)



Conclusion

Results do not support routine LAA closure in all patients undergoing open-heart surgery but those at high stroke risk may benefit.

Implications

Further follow-up and mechanistic studies may identify which patients benefit most from LAA closure during open-heart surgery.

OBJECTIVE

To investigate if LAA closure during open-heart surgery has a protective effect in patients regardless of prior AF.

METHODS

- Open-heart surgery
- 4.1% with AF

1,500 patients randomised 1:1

4 centres in Denmark, Sweden and Spain

LAA closure → **Primary endpoint:** Stroke or TIA

No LAA closure

RESULTS

Median 4 years' follow-up	Stroke or TIA
Overall	HR 0.85 95% CI 0.53–1.37; p=0.517
CHA2DS2-VASc ≥3	**HR 0.44** **95% CI 0.22–0.90; p=0.018**
CHA2DS2-VASc <3	HR 1.74 95% CI 0.86–3.55; p=0.110

PRAGUE 26

Catheter-directed thrombolysis for pulmonary embolism

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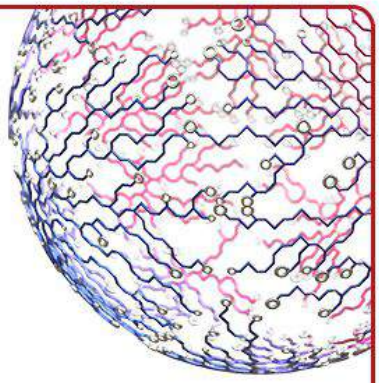

Presenter: Viktor Kočka (Charles University and University Hospital Kralovske Vinohrady - Prague, Czechia)

Conclusion

Catheter-directed thrombolysis significantly reduced the primary endpoint compared with standard care over 7 days, with no bleeding concerns.

Implications

The results from PRAGUE-26 could be used to inform future guidelines.

OBJECTIVE

To assess the efficacy and safety of catheter-directed thrombolysis compared with standard care in the treatment of intermediate–high risk PE.

METHODS

- Acute intermediate–high risk PE

558 patients randomised 1:1
11 centres in Czechia

- Catheter-directed thrombolysis
- Standard anticoagulation

RESULTS

	Catheter-directed thrombolysis	Standard anticoagulation	
Primary endpoint at 7 days All-cause mortality, PE recurrence or cardiorespiratory decompensation/collapse	0.7% ↓	6.8%	Relative risk 0.10 95% CI 0.02–0.44; p<0.001
Any bleeding at 7 days	4.6%	5.0%	p=0.846