



Kdy může katetrizační ablace nahradit implantaci pacemakeru?

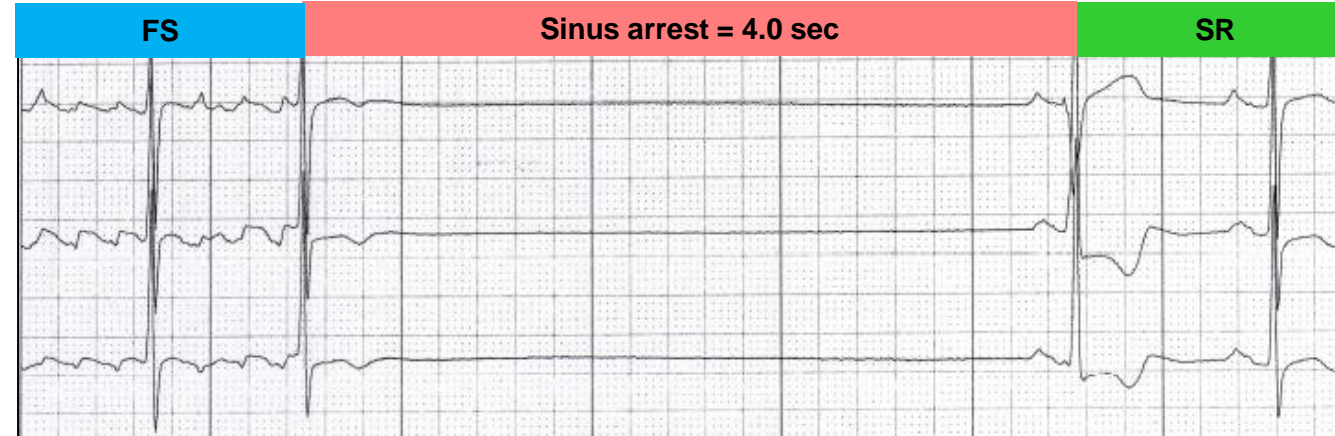
Dan Wichterle

Klinika kardiologie IKEM

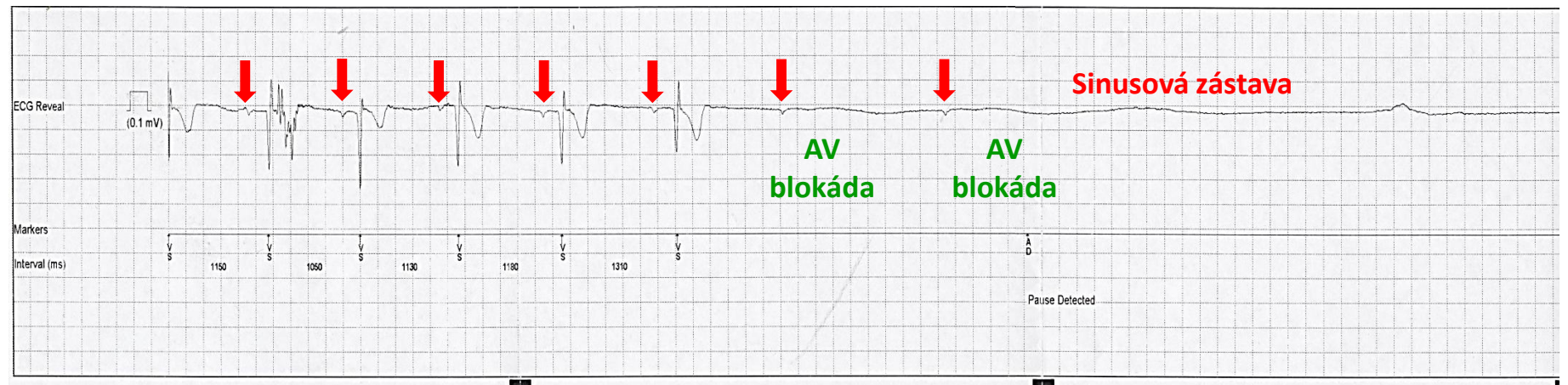


Kdy je možné léčit bradyarytmie pomocí ablace

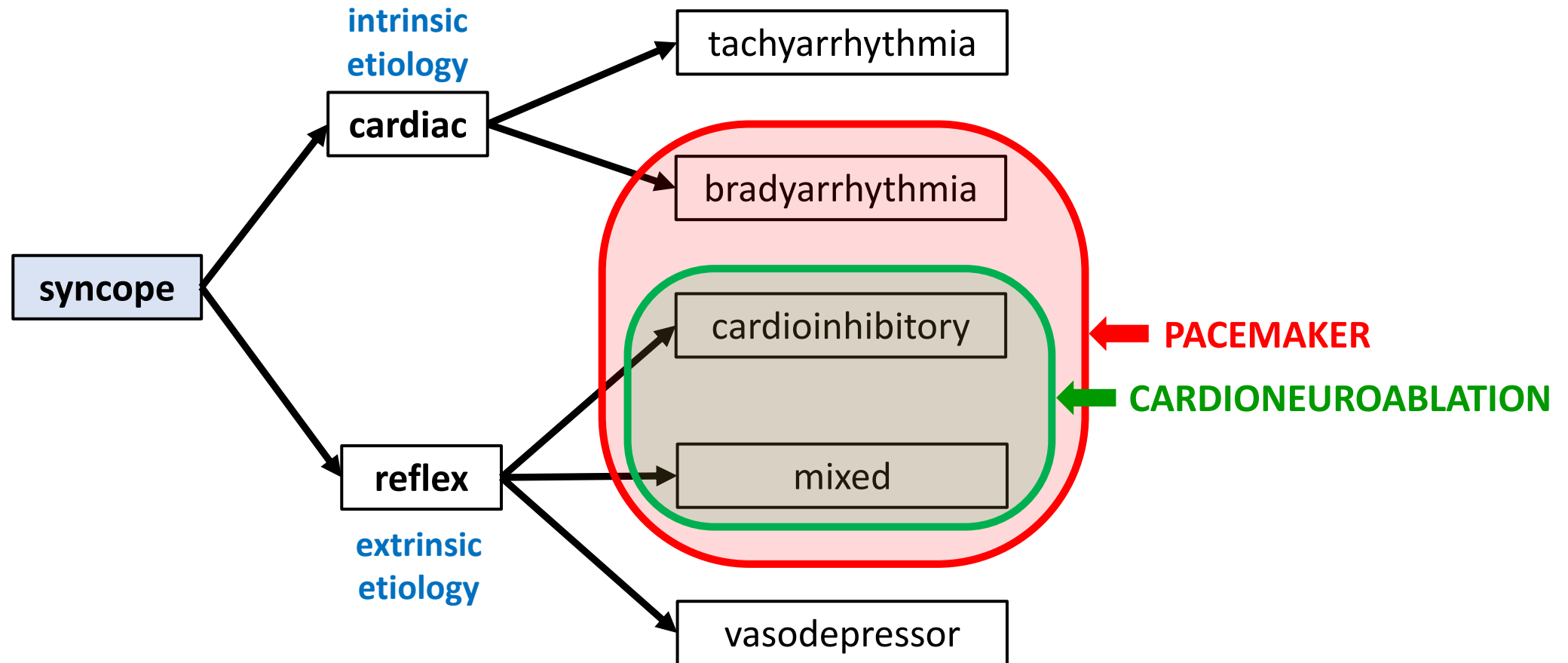
Post-tachykardické
pauzy



Reflexní
bradyarytmie



Intervenční léčba synkop



Kardioneuroablace – dokumenty typu „state of the art“



ESC

European Society of Cardiology
https://doi.org/10.1093/europace/euad033

Europace (2023) 00, 1–10

CONTROVERSY

Clinical controversy: methodology and indications of cardioneuroablation for reflex syncope

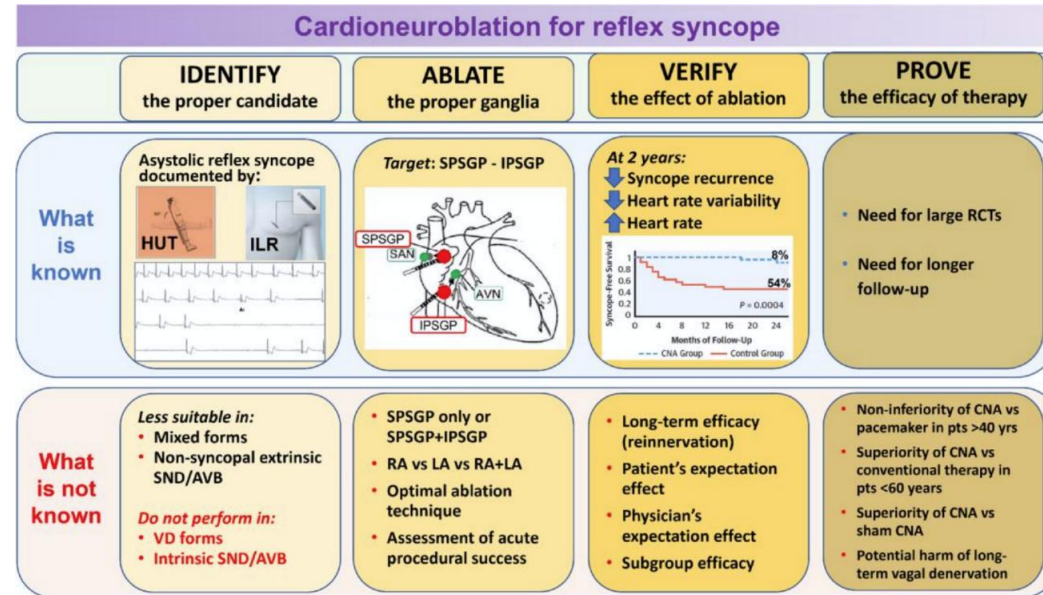
Michele Brignole ^{1*}, Tolga Aksu ², Leonardo Calò ³, Philippe Debruyne ⁴, Jean Claude Deharo ⁵, Alessandra Fanciulli ⁶, Artur Fedorowski ^{7,8,9}, Piotr Kulakowski ¹⁰, Carlos Morillo ¹¹, Angel Moya ¹², Brian Olshansky ¹³, Roman Piotrowski ¹⁰, Sebastian Stec ¹⁴, and Dan Wichterle ^{15,16}

TOPICS IN REVIEW

Cardioneuroablation: Where are we at?

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Cardioneuroablation for the treatment of reflex syncope and functional bradyarrhythmias. A Clinical Consensus Statement of the European Heart Rhythm Association (EHRA) of the ESC, the Heart Rhythm Society (HRS), the Asia Pacific Heart Rhythm Society (APHRS) and the Latin American Heart Rhythm Society (LAHRS)

Brignole M et al. Europace 2023;25(5):euad033

Pachon JC et al. Heart Rhythm O2 2023;4:401–413

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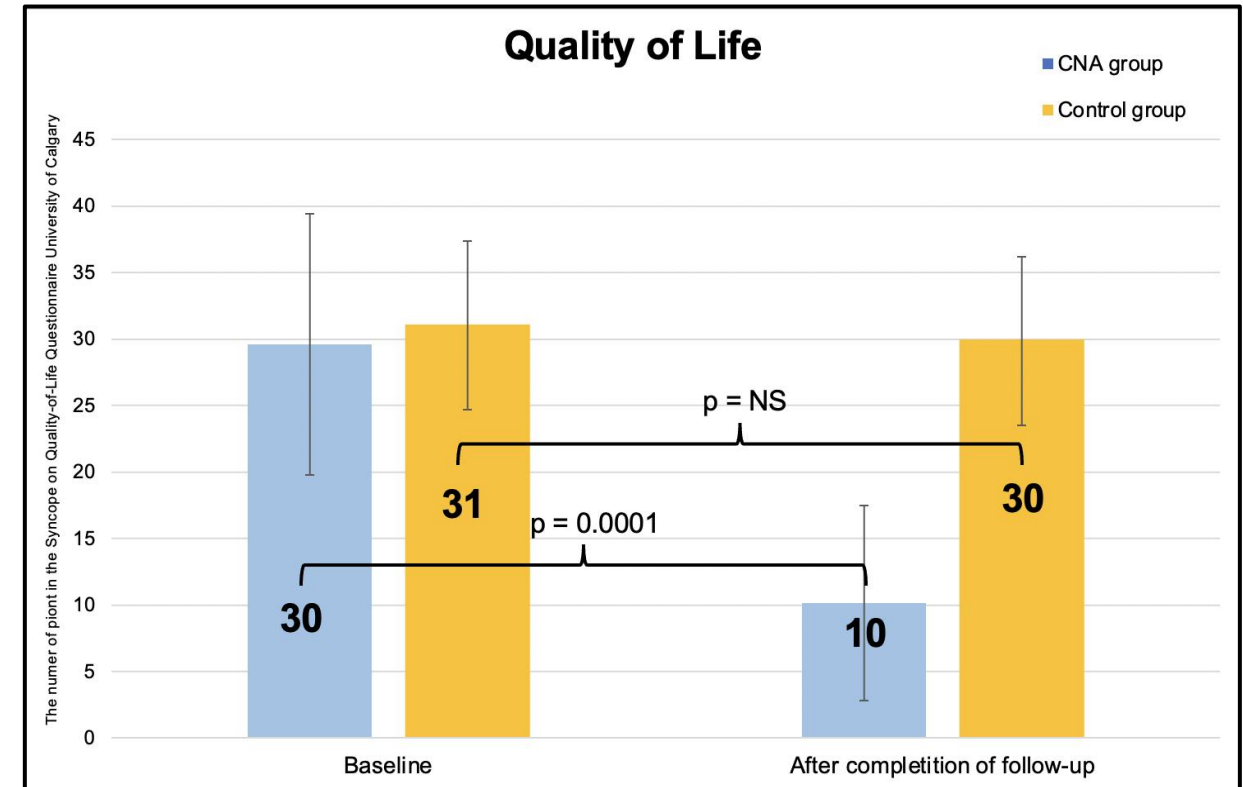
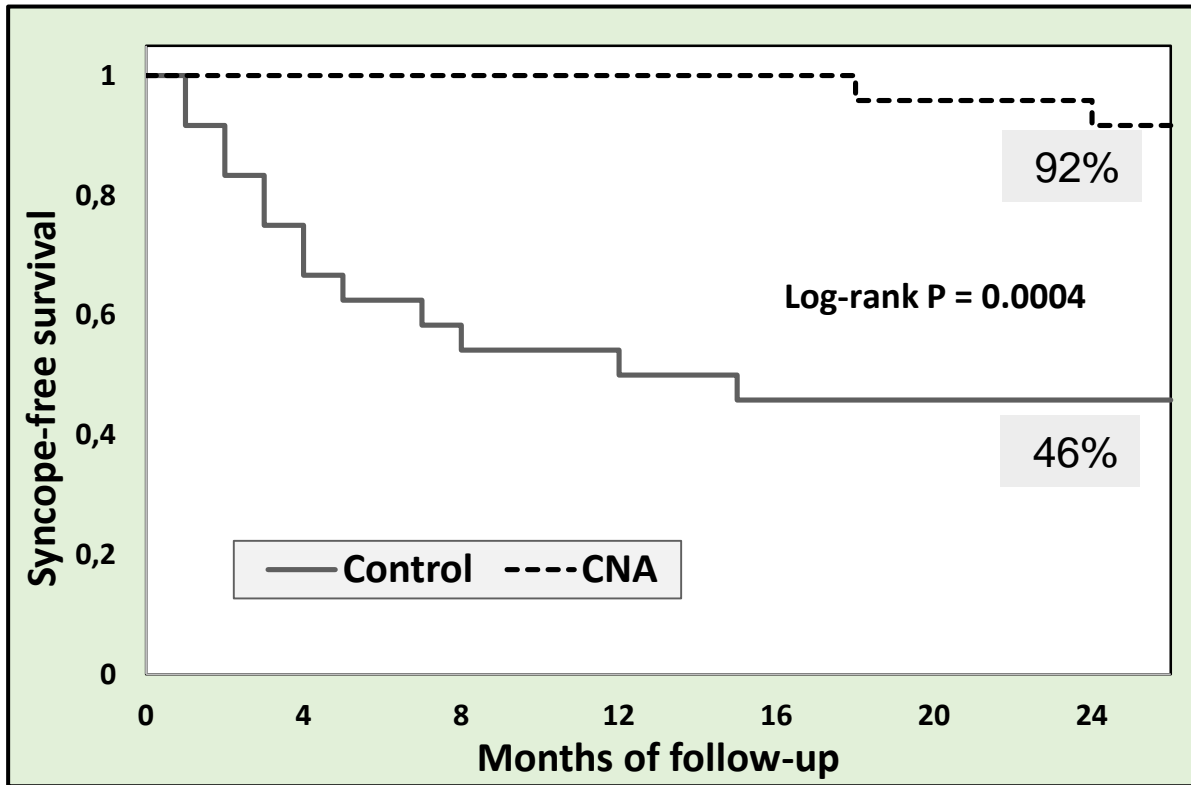
Intervenční léčba kardioinhibičních synkop nebo funkčních bradyarytmií

Věk	Kardioneuroablace	Pacemaker
18-40 let	ANO	NE !!!
40-60 let	spíše ANO	spíše NE
nad 60 let	spíše NE	spíše ANO

Cardioneuroablation for Reflex Syncope (ROMAN trial)

Cardioneuroablation for reflex syncope: efficacy and effects on autonomic cardiac regulation
A prospective randomized trial

24 + 24 patients



Intervenční léčba kardioinhibičních synkop nebo funkčních bradyarytmií

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Kardioneuroablace nebo pacemaker: observační studie

Permanent pacing versus cardioneuroablation for cardioinhibitory vasovagal syncope

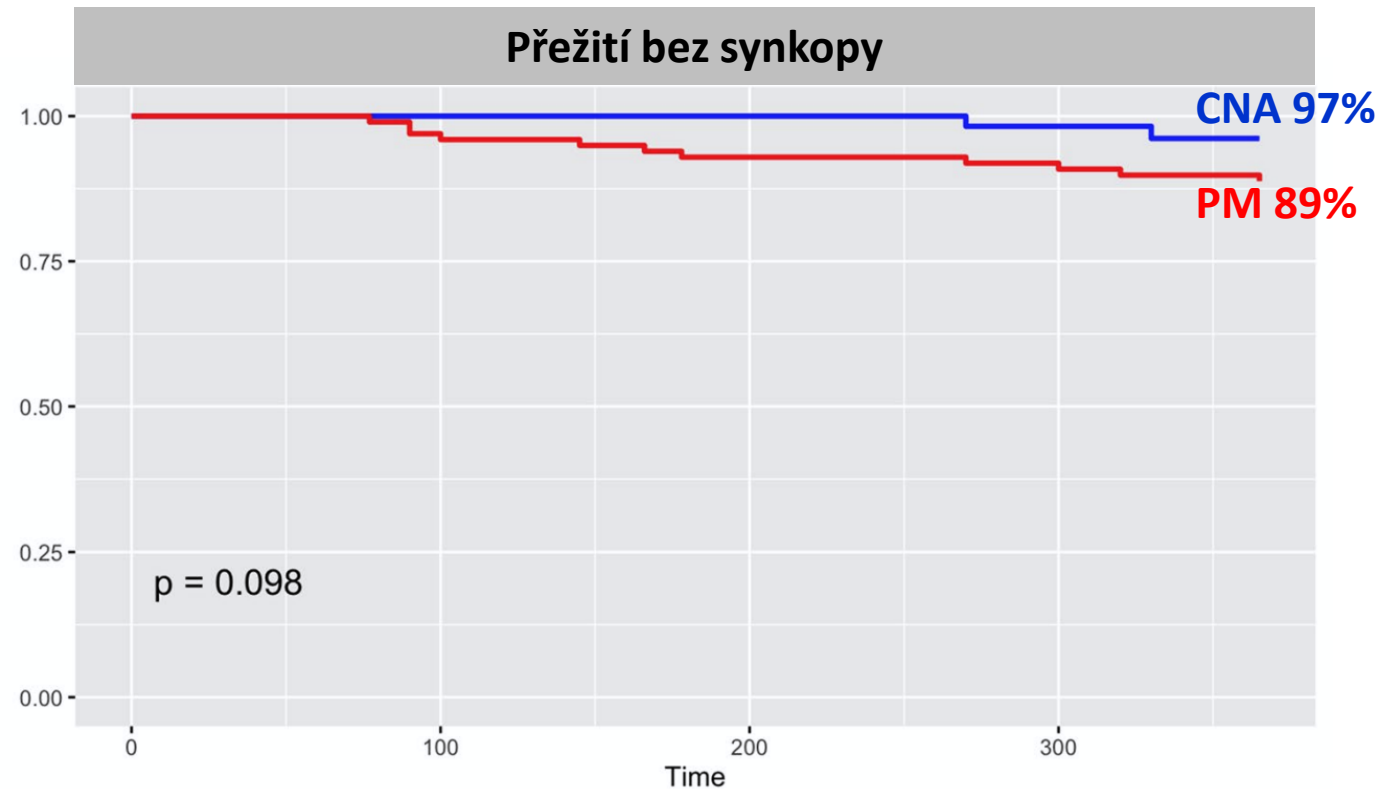
Nerandomizovaná observační studie

Kardioneuroablace (N=61)

VS

Pacemaker – RDR / CLS / leadless (N=101)

- **Věk:** 36 ± 11 let
- **Četnost synkop:** 7 ± 4 / rok
- **Sledování:** 1 rok
- **Endpoint:** Rekurence synkopy



Gopinathannair R et al. J Interv Card Electrophysiol 2022 Dec 23.
doi: 10.1007/s10840-022-01456-x.

Kardioneuroablace nebo pacemaker: probíhající randomizované studie

 National Library of Medicine National Center for Biotechnology Information	N = 6
ClinicalTrials.gov	

- Pacienti bez intervence
 - (1) kardioneuroablace
 - (2) implantace pacemakeru
- Pacienti s implantovaným pacemakerem
 - (1) kardioneuroablace + downgrade/ukončení stimulace
 - (2) konzervativní postup

- **275 kardioneuroablací**
- **15 pacientů s implantovaným pacemakerem**

Preference pacienta

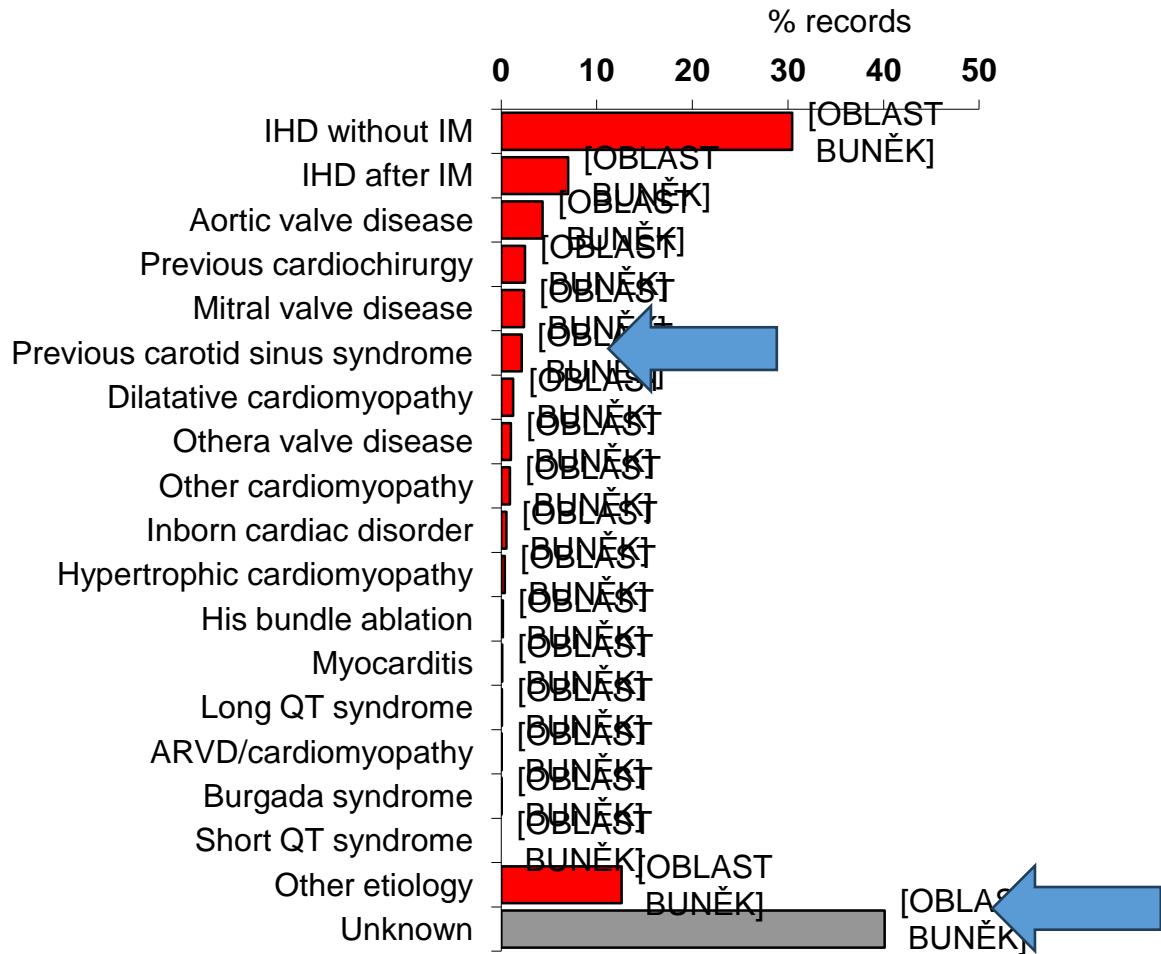
- Diskomfort
- Stigmatizace
- Jasně neindikovaná implantace

Technické/klinické důvody

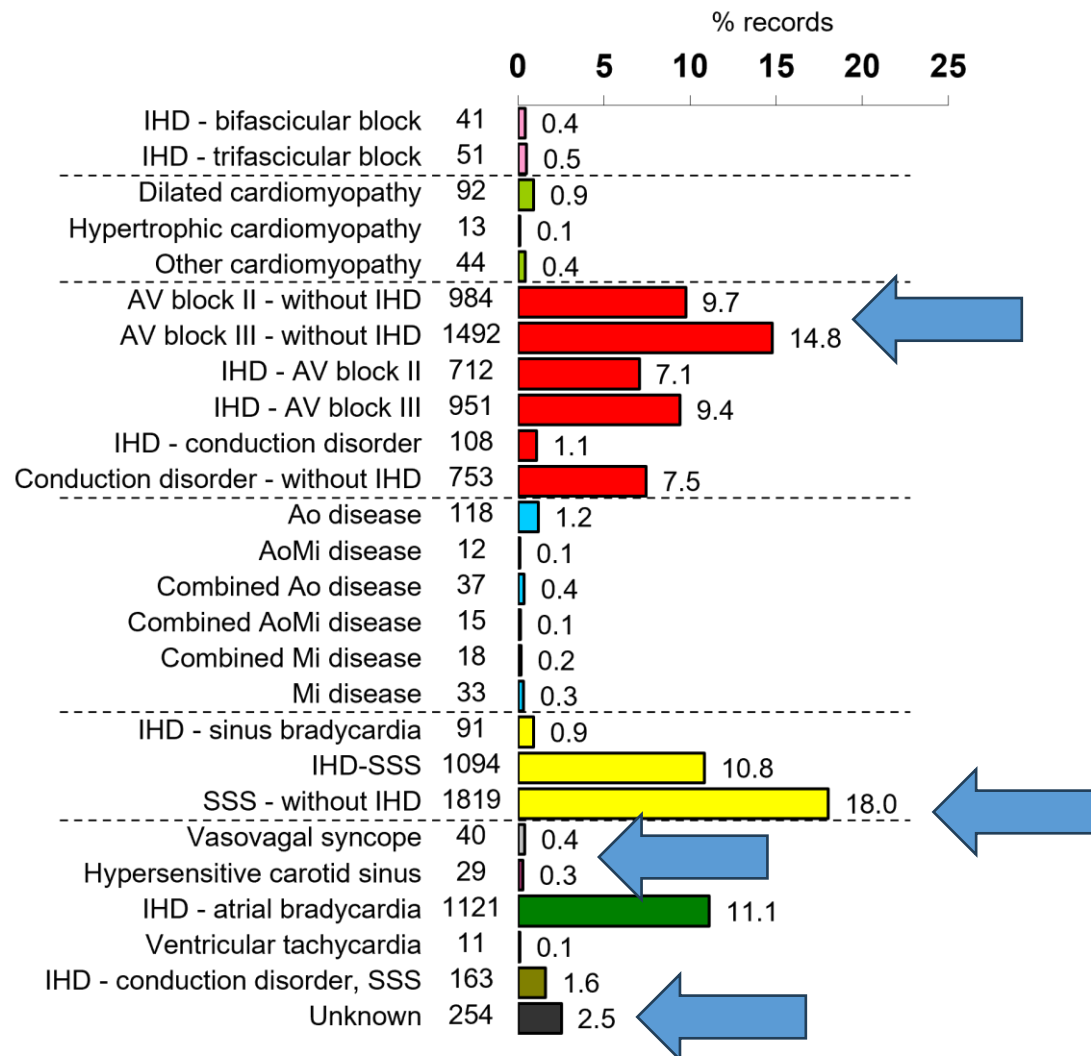
- Porucha elektrod
- Infekční endokarditida
- Recidivující dekubity kapsy

REPACE 2021 (N = 10 096)

Pacemaker implantation - etiology



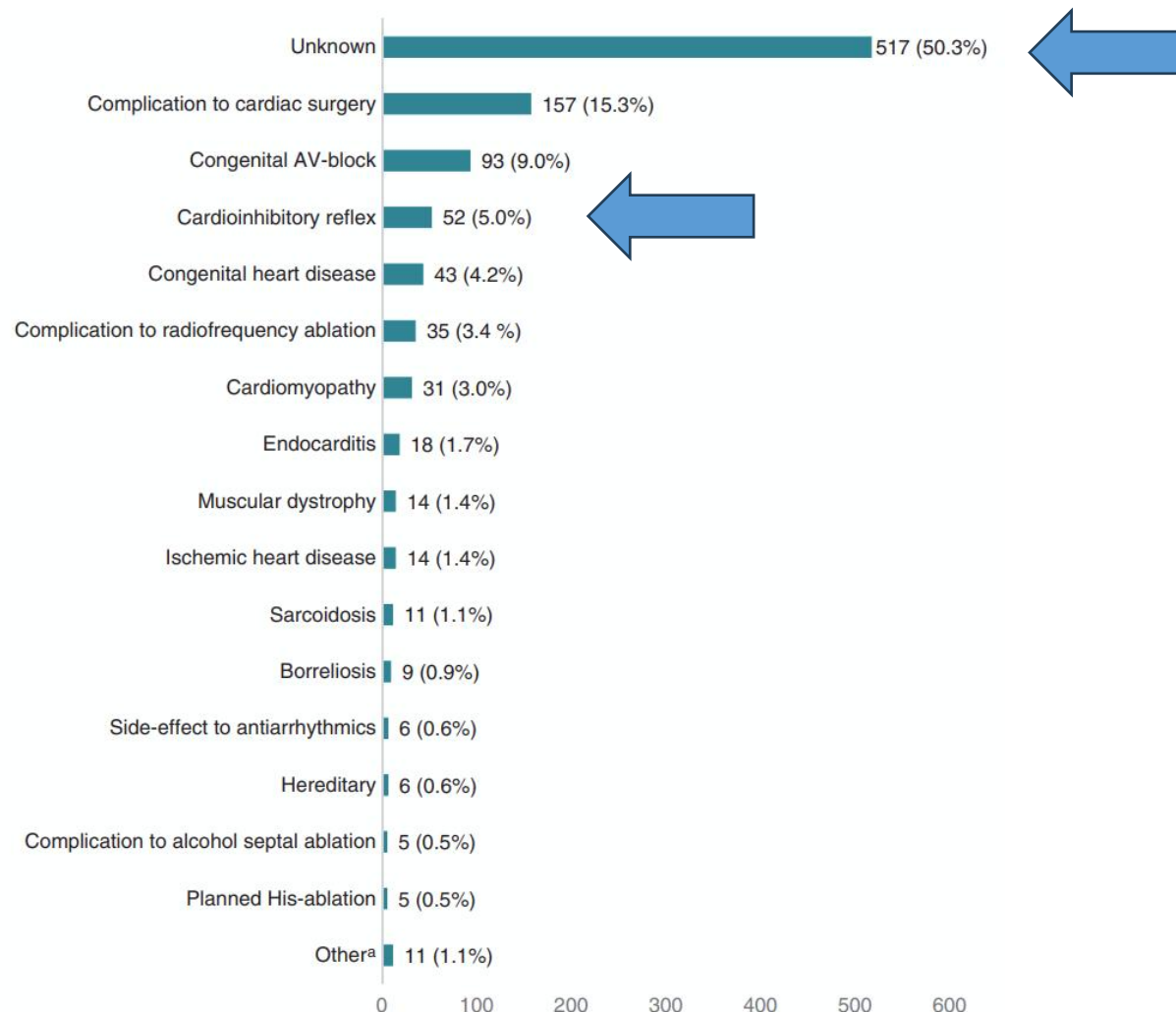
Pacemaker implantation - main diagnosis



Jiný evropský kardiostimulační registr

- Dánsko
- 1996-2015
- AV blokáda
- Věk <50 let

N = 1027



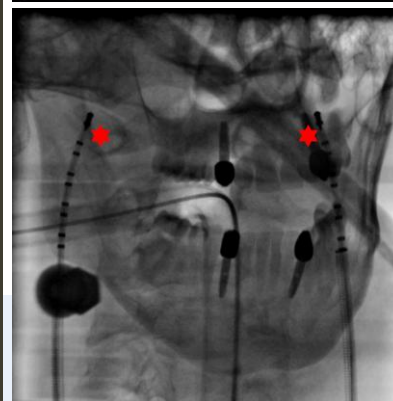
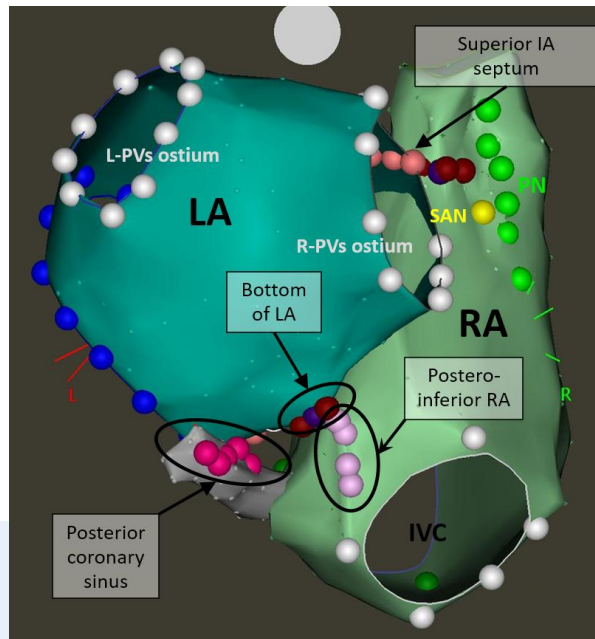
Souhrn: léčba kardioinhibičních synkop a funkčních bradyarytmií

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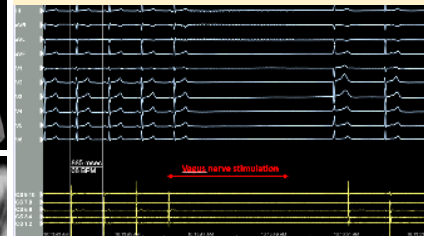
Arytmologie KK IKEM

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ECVS-induced sinus arrest



ECVS-induced AV block

