ΑΣΥΜΠΤΩΜΑΤΙΚΗ ΚΟΙΛΙΑΚΗ ΕΚΤΑΚΤΟΣΥΣΤΟΛΙΑ

ΧΡΗΣΤΟΣ ΤΑΣΣΟΠΟΥΛΟΣ

ΚΑΡΔΙΟΛΟΓΟΣ

EHRA Certified EP Specialist

- **ΓΕΝ. ΚΛΙΝΙΚΗ EUROMEDICA**
- **ΓΝ ΠΑΠΑΓΕΩΡΓΙΟΥ ΘΕΣΣΑΛΟΝΙΚΗ**

ΓΕΝΙΚΑ ΣΤΑΤΙΣΤΙΚΑ ΣΤΟΙΧΕΙΑ

- ARIC Study :
  - 2-minute ECG detected PVCs in **5.5%** of the population

- Framingham Heart Study:
  - PVCs or other more complex ventricular arrhythmias in **12%** of individuals without coronary disease monitored for 1 hour

Bikkina M, Larson MG, Levy D. Prognostic implications of asymptomatic ventricular arrhythmias: the Framingham Heart Study. Ann Intern Med. 1992;117:990–996. doi: 10.7326/0003-4819-117-12-990

- Population based study Lichtenstein :
  - At least one PVC in **69%** of participants Holter-ECG 24h
  - the median PVC count : 2
  - 95th percentile : 193 PVCs

Circulation. 2020;141:1404–1418. DOI: 10.1161/CIRCULATIONAHA.119.042434

ΠΟΣΟΙ ΕΙΝΑΙ ΟΙ ΑΣΥΜΠΤΩΜΑΤΙΚΟΙ ;

ΠΟΣΟΙ ΕΙΝΑΙ ΟΙ ΑΣΥΜΠΤΩΜΑΤΙΚΟΙ ;

JACC: CLINICAL ELECTROPHYSIOLOGY VOL. 6, NO. 6, 2020

PUBLISHED BY ELSEVIER

Risk Stratification of Patients With Apparently Idiopathic Premature Ventricular Contractions

A Multicenter International CMR Registry

→ **13%**

ΛΟΓΟΣ ΚΑΡΔΙΟΛΟΓΙΚΗΣ ΕΞΕΤΑΣΗΣ

- **ΠΡΟΑΘΛΗΤΙΚΟΣ ΕΛΕΓΧΟΣ 74%**
- **ΠΡΟΕΓΧΕΙΡΗΤΙΚΟΣ ΕΛΕΓΧΟΣ 19%**
- **ΤΥΧΑΙΑ ΚΑΤΑΓΡΑΦΗ ΚΑΤΑ ΤΗΝ ΔΙΑΡΚΕΙΑ ΚΑΠΟΙΑΣ ΕΠΕΜΒΑΣΗΣ 8%**

ΠΟΣΟΙ ΕΙΝΑΙ ΟΙ ΑΣΥΜΠΤΩΜΑΤΙΚΟΙ ;

?

ΑΠΟΥΣΙΑ ΣΥΜΠΤΩΜΑΤΩΝ = ΜΕΙΩΜΕΝΟΣ ΚΙΝΔΥΝΟΣ;

Prognosis of asymptomatic patients with frequent PVCs:

Kennedy, H.L.; Whitlock, J.A.; Sprague, M.K.; Kennedy, L.J.; Buckingham, T.A.; Goldberg, R.J.

Long-Term Follow-up of Asymptomatic Healthy Subjects with Frequent and Complex Ventricular Ectopy. N. Engl. J. Med. 1985, 312, 193–197

→ **ΚΑΜΜΙΑ ΔΙΑΦΟΡΑ ΜΕ ΤΟΝ ΥΓΙΗ ΠΛΗΘΥΣΜΟ, N=76, 10y**

Lee AKY, Andrade J, Hawkins NM, Alexander G, Bennett MT, Chakrabarti Set al.

Outcomes of untreated frequent premature ventricular complexes with Normal left ventricular function. Heart 2019;105:1408–13.

→ **ΜΕΙΩΣΗ ΦΟΡΤΙΟΥ ΑΠΟ 18% → 1% ΣΕ ΕΝΑ ΕΤΟΣ , N= 100**

Nomura Y, Seki S, Hazeki D, Ueno K, Tanaka Y, Masuda Ket al.
Risk factors for development of ventricular tachycardia in patients with ventricular premature contraction with a structurally normal heart. J Arrhythm 2020;36:127–33.

→ **94% ΠΑΡΟΥΣΙΑΣΑΝ ΒΕΛΤΙΩΣΗ΄Η ΣΤΑΘΕΡΗ ΕΙΚΟΝΑ ΣΕ 1.3-3 ΕΤΗ**

ΑΠΟΥΣΙΑ ΣΥΜΠΤΩΜΑΤΩΝ = ΜΕΙΩΜΕΝΟΣ ΚΙΝΔΥΝΟΣ;

2 ΜΕΤΑΝΑΛΥΣΕΙΣ (11 and 8 large population-based studies) ~150,000 healthy subjects

ΚΟΙΛΙΑΚΗ ΕΚΤΑΚΤΟΣΥΣΤΟΛΙΑ (≥1x/standard ECG ή ≥30x/ΩΡΑ)

- **1.72-x increase in the risk of MACE**

  (all-cause mortality, cardiovascular mortality, sudden cardiac death or development of ischaemic heart disease

- **2.64-x increase in the risk of SCD**

Lee, V.; Hemingway, H.; Harb, R.; Crake, T.; Lambiase, P. The prognostic significance of premature ventricular complexes in adults without clinically apparent heart disease: A meta-analysis and systematic review. Heart 2012, 98, 1290–1298

Ataklte, F.; Erqou, S.; Laukkanen, J.; Kaptoge, S. Meta-Analysis of Ventricular Premature Complexes and Their Relation to Cardiac Mortality in General Populations. Am. J. Cardiol. 2013, 112, 1263–1270

ESC European Society of Cardiology
European Heart Journal (2022) 43, 3997–4126
https://doi.org/10.1093/eurheartj/ehac262

2022 ESC Guidelines for the management of patients with ventricular arrhythmias and the prevention of sudden cardiac death

Developed by the task force for the management of patients with ventricular arrhythmias and the prevention of sudden cardiac death of the European Society of Cardiology (ESC)

Endorsed by the Association for European Paediatric and Congenital Cardiology (AEPC)

Idiopathic PVC/VT and PVC-induced cardiomyopathy	
Catheter ablation as first-line treatment is recommended for symptomatic idiopathic VT/PVCs from the RVOT or the left fascicles.	I
Beta-blockers or non-dihydropyridine CCBs are indicated in symptomatic patients with idiopathic VT/PVCs from an origin other than the RVOT or the left fascicles.	I
In patients with PVCs/VT and a presentation not typical for an idiopathic origin,[c] CMR should be considered, despite a normal echocardiogram.	IIa
Beta-blockers, non-dihydropyridine CCBs or flecainide should be considered when catheter ablation is not available, not desired, or is particularly risky in symptomatic patients with idiopathic VT/PVCs from the RVOT or the left fascicles.	IIa
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In patients with an unexplained reduced EF and a PVC burden of at least 10%, PVC-induced cardiomyopathy should be considered.	IIa
In patients with suspected PVC-induced cardiomyopathy, CMR should be considered.	IIa
In non-responders to CRT with frequent, predominately monomorphic PVCs limiting optimal biventricular pacing despite pharmacological therapy, catheter ablation or AADs should be considered.	IIa
Catheter ablation may be considered for idiopathic VT/PVCs in asymptomatic patients with repeatedly more than 20% of PVCs per day at follow-up.	IIb
Amiodarone as a first-line treatment is not recommended in patients with idiopathic VTs/PVCs.	III

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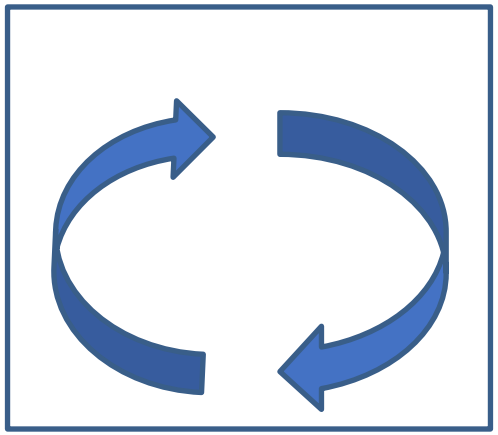
ΥΠΟΣΤΡΩΜΑ

ΦΟΡΤΙΟ VPB/ LVEF



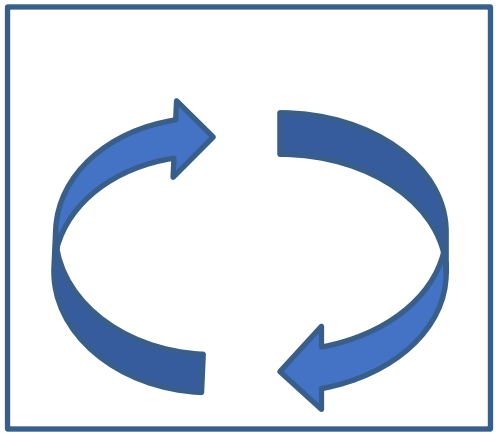
ΣΗΜΕΙΟ ΠΡΟΕΛΕΥΣΗΣ

ΣΥΜΠΤΩΜΑΤΑ

ΠΑΡΑΜΕΤΡΟΙ ΠΟΥ ΠΡΕΠΕΙ ΝΑ ΛΗΦΘΟΥΝ ΥΠΟΨΙΝ

ΥΠΟΣΤΡΩΜΑ

ΦΟΡΤΙΟ VPB/ LVEF



ΣΗΜΕΙΟ ΠΡΟΕΛΕΥΣΗΣ

ΣΥΜΠΤΩΜΑΤΑ

Total population (n=1424)		Percent increase*	(95% CI)	p
Characteristic, unit (SD)	←*fewer PVCs* *more PVCs* →			
Age, years (4.9)		11	(3 to 19)	**0.003**
Male		11	(-9 to 36)	0.32
Height, cm (9.4)		23	(12 to 36)	**<0.0001**
Systolic blood pressure, mmHg (21.5)		9	(2 to 17)	**0.01**
Congestive heart failure		45	(0 to 111)	0.051
Myocardial infarction		22	(-2 to 53)	0.07
Exercise Intensity†		-15	(-25 to -3)	**0.02**
Smoking status‡		18	(3 to 36)	**0.02**
Ejection fraction§		59	(-5 to 85)	**<0.0001**

JACC: Clinical Electrophysiology
Volume 6, Issue 6, June 2020, Pages 722-735

Ventricular Arrhythmias

Risk Stratification of Patients With Apparently Idiopathic Premature Ventricular Contractions: A Multicenter International CMRRegistry

- **Group with myocardial abnormalities →**

  29% sudden cardiac death, resuscitated cardiac arrest, nonfatal episodes of VF or sVT

  Vs

- **0.2% of the group without myocardial abnormalities.**

Over a follow-up of 67 months

ΒΑΣΙΚΗ ΚΑΡΔΙΟΛΟΓΙΚΗ ΔΙΑΓΝΩΣΤΙΚΗ ΠΡΟΣΕΓΓΙΣΗ:

- **ΑΤΟΜΙΚΟ ΑΝΑΜΝΗΣΤΙΚΟ → ΣΥΓΚΟΠΗ, ΑΙΣΘΗΜΑ ΠΑΛΜΩΝ**
- **12-L- ECG → ΚΑΤΑΓΡΑΦΗ ΜΟΡΦΟΛΟΓΙΑΣ → ΑΔΡΟΣ ΕΝΤΟΠΙΣΜΟΣ ΕΣΤΙΑΣ ΠΡΟΕΛΕΥΣΗΣ, BRUGADA?**
- **HOLTER - ECG → ΠΡΟΣΔΙΟΡΙΣΜΟΣ ΑΝΑΛΟΓΙΚΟΥ ΦΟΡΤΙΟΥ**
- **ECHO → LVEF; , ΕΝΔΕΙΞΕΙΣ ΔΟΜΙΚΗΣ ΝΟΣΟΥ;**
- **ΔΟΚΙΜΑΣΙΑ ΚΟΠΩΣΕΩΣ, CARD-CT → ΕΝΔΕΙΞΕΙΣ ΣΤΕΦ. ΝΟΣΟΥ —> CORO/PCI**

ΕΠΙΠΡΟΣΘΕΤΟΣ ΕΛΕΓΧΟΣ:

- **CARD-MRI → ARVC, ΙΝΩΣΗ ΚΑΙ ΤΙ ΤΥΠΟΣ;**

ΒΑΣΙΚΗ ΚΑΡΔΙΟΛΟΓΙΚΗ ΔΙΑΓΝΩΣΤΙΚΗ ΠΡΟΣΕΓΓΙΣΗ:

- **ΑΤΟΜΙΚΟ ΑΝΑΜΝΗΣΤΙΚΟ → ΣΥΓΚΟΠΗ, ΑΙΣΘΗΜΑ ΠΑΛΜΩΝ**
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- **HOLTER - ΟΡΤΙΟΥ**
- **ECHO ';**
- **ΔΟΚΙΜΑΣ /PCI**

ΕΠΙΠΡΟΣΘΕΤΟ

- **CARD-MR**

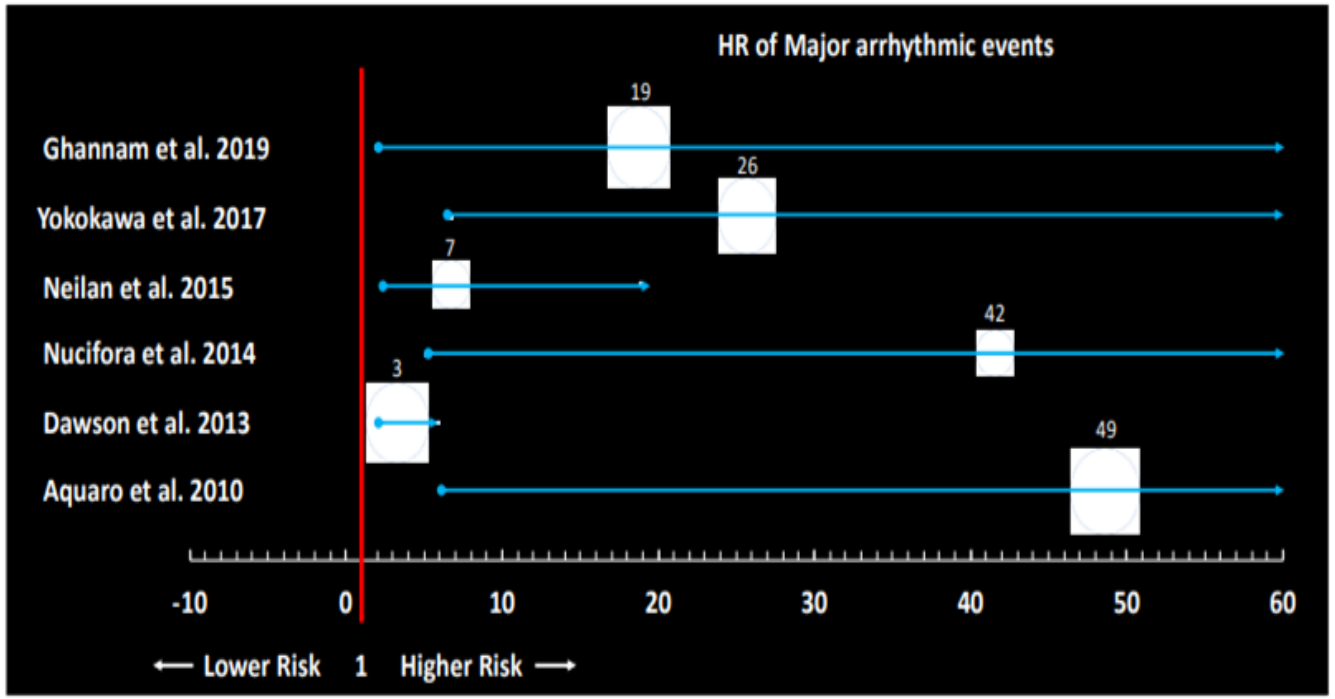


Figure 3. Forest plot showing the results of the principal studies investigating the prognostic role of cardiac magnetic resonance abnormalities in patients with frequent premature ventricular contractions.

ΠΙΘΑΝΟ ΑΡΡΥΘΜΙΟΓΟΝΟ ΥΠΟΣΤΡΩΜΑ

- **ΣΤΕΦΑΝΙΑΙΑ ΝΟΣΟΣ**
- **NICMP**
- **ΠΑΡΕΛΘΟΥΣΑ ΜΥΟΚΑΡΔΙΤΙΔΑ**
- **ΣΑΡΚΟΕΙΔΩΣΗ**
- **ARVC**
- **CHANNELOPATHIES**

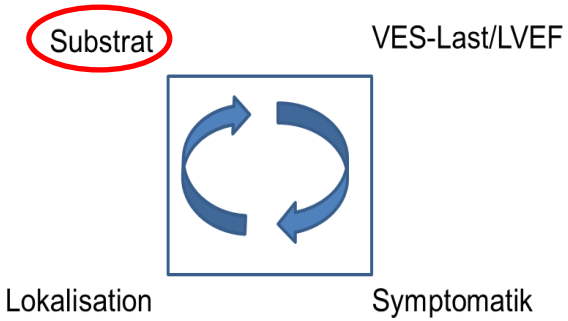
ΠΡΟΓΝΩΣΗ VPB

ΙΔΙΟΠΑΘΕΙΣ

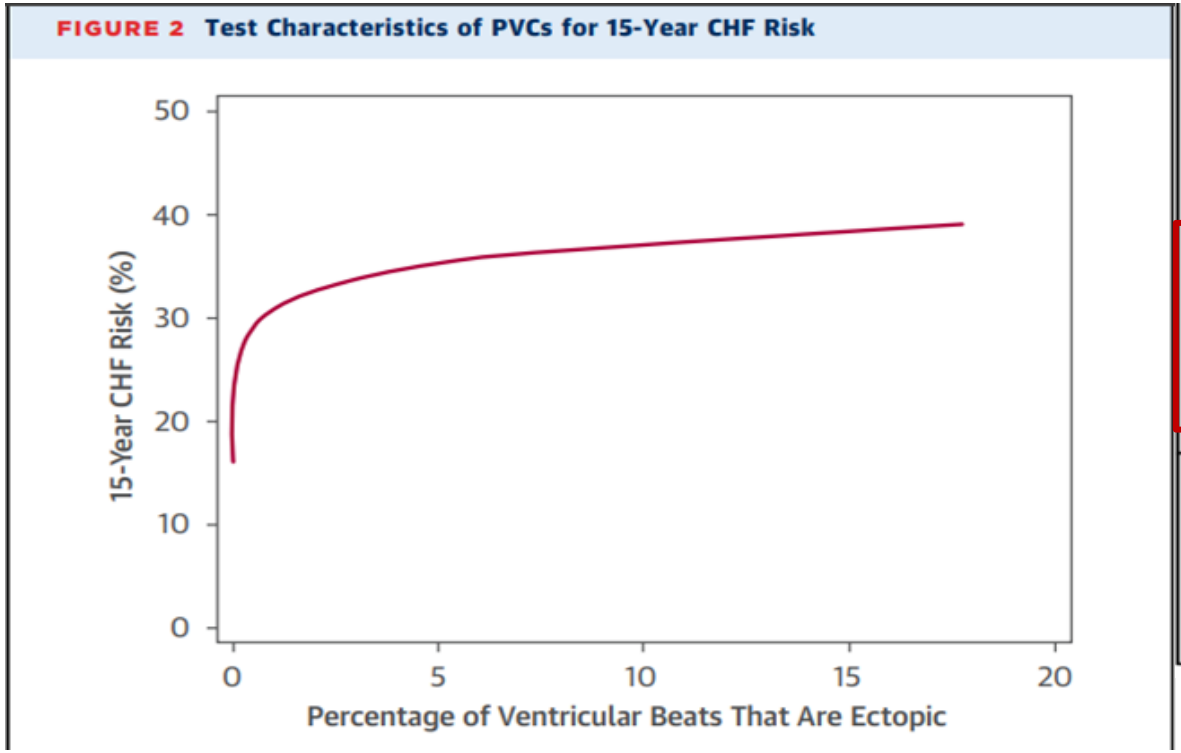
ΓΕΝΙΚΑ ΚΑΛΗ ΠΡΟΓΝΩΣΗ

ΕΠΙ ΥΠΟΣΤΡΩΜΑΤΟΣ

- ICMP
- DCM
- ARVC
- ΣΑΡΚΟΕΙΔΩΣΗ



ΚΙΝΔΥΝΟΣ ΜΥΟΚΑΡΔΙΟΠΑΘΕΙΑΣ



Percent PVC count	15-Year CHF Risk	PPV	NPV	Sensitivity	Specificity
0%	16.2%	27.5%	100%	100%	0.2%
0.01%	19.3%	29.6%	78.5%	78.9%	29.1%
0.1%	25.2%	33.9%	75.7%	41.0%	69.7%
0.5%	29.0%	41.1%	75.0%	23.1%	87.5%
1.0%	30.8%	45.1%	74.5%	16.3%	92.5%
1.5%	31.9%	50.8%	74.3%	13.1%	95.2%
3.0%	33.8%	52.5%	73.7%	8.4%	97.1%
6.0%	35.7%	44.4%	72.9%	3.2%	98.5%
10.0%	37.2%	40.0%	72.6%	0.8%	99.5%
17.7%	36.4%	0%	72.5%	0.0%	100%

The predicted 15-year risk for CHF (using the log base 2-transformed PVC model) is plotted against the percentage of PVCs. The positive predictive value (PPV), negative predictive value (NPV), sensitivity, and specificity for the diagnosis of CHF at 15 years for an individual participant are listed for various unadjusted PVC cutoff values. Abbreviations as in Figure 1.

Dukes, J.W.; Dewland, T.A.; Vittinghoff, E.; Mandyam, M.C.; Heckbert, S.R.; Siscovick, D.S.; Stein, P.K.; Psaty, B.M.; Sotoodehnia, N.; Gottdiener, J.S.; et al. Ventricular Ectopy as a Predictor of Heart Failure and Death. J. Am. Coll. Cardiol. **2015**, 66, 101–109, N=1139

PVC - Induced Cardiomyopathy (TICMP):

ΔΙΑΤΑΣΗ ΑΡ ΚΟΙΛΙΑΣ ΚΑΙ ΜΕΙΩΣΗ LVEF

+

ΣΥΧΝΕΣ ΕΚΤΑΚΤΕΣ ΚΟΙΛΙΑΚΕΣ ΣΥΣΤΟΛΕΣ

+

ΠΛΗΡΗΣ΄Η ΜΕΡΙΚΗ ΑΝΑΚΑΜΨΗ ΤΗΣ ΣΥΣΤΟΛΙΚΗΣ ΛΕΙΤΟΥΡΓΙΑΣ ΜΕΤΑ ΑΠΟ ΕΠΙΤΥΧΗ ΘΕΡΑΠΕΙΑ ΤΩΝ ΕΚΤΑΚΤΩΝ ΚΟΙΛΙΑΚΩΝ ΣΥΣΤΟΛΩΝ

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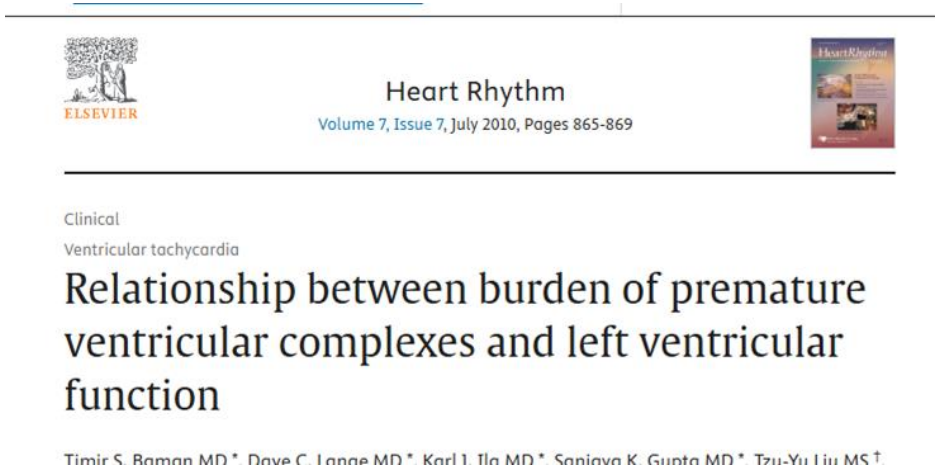


ELSEVIER

Heart Rhythm

Volume 7, Issue 7, July 2010, Pages 865-869

Clinical

Ventricular tachycardia

Relationship between burden of premature ventricular complexes and left ventricular function

Timir S. Baman MD *, Dave C. Lange MD *, Karl J. Ilg MD *, Sanjaya K. Gupta MD *, Tzu-Yu Liu MS †,

VC burden of >24% best separated the patient population with impaired left ventricular function (sensitivity 79%, specificity 78%)
Lowest PVC burden resulting in a reversible cardiomyopathy was 10%.

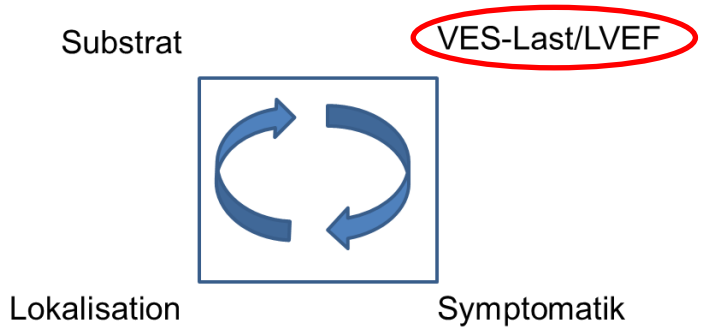
PVC burden (hazard ratio 1.12, 95% confidence interval 1.08 to 1.16; *P* <.01) was independently associated with PVC-induced cardiomyopathy.

ΦΟΡΤΙΟ VPB ΚΑΙ ΠΡΟΓΝΩΣΗ

ΥΨΗΛΟ ΦΟΡΤΙΟ ΕΚΤΑΚΤΩΝ ΣΥΣΤΟΛΩΝ → ΑΥΞΗΜΕΝΗ ΘΝΗΤΟΤΗΤΑ

- 31% increased risk of death (HR: 1.31; 95% CI: 1.06 to 1.63; p = 0.01) during a median follow-up of >13 years

Ventricular ectopy as a predictor of heart failure and death
Dukes JW, Dewland TA, Vittinghoff E, et al *J Am Coll Cardiol*. 2015;66:101–109.
(Observational study >1,100 participants older than age 65 years)



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In non-responders to CRT with frequent, predominately monomorphic PVCs limiting optimal biventricular pacing despite pharmacological therapy, catheter ablation or AADs should be considered.	IIa
Catheter ablation may be considered for idiopathic VT/PVCs in asymptomatic patients with repeatedly more than 20% of PVCs per day at follow-up.	IIb
Amiodarone as a first-line treatment is not recommended in patients with idiopathic VTs/PVCs.	III

ΠΑΡΑΓΟΝΤΕΣ ΚΙΝΔΥΝΟΥ ΓΙΑ ΜΥΟΚΑΡΔΙΟΠΑΘΕΙΑ

- **ΑΡΡΕΝ ΦΥΛΟ**
- **ΑΠΟΥΣΙΑ ΣΥΜΠΤΩΜΑΤΩΝ**
- **PVC burden of ≥16%**
- **ΣΤΑΘΕΡΗ ΚΑΤΑΝΟΜΗ ΕΚΤΑΚΤΟΣΥΣΤΟΛΙΑΣ ΣΤΟ 24ω**
- **ΜΟΝΟΜΟΡΦΕΣ ΒΡΑΧΕΙΕΣ ΚΟΙΛΙΑΚΕΣ ΡΙΠΕΣ**

(J Cardiovasc Electrophysiol, Vol. 22, pp. 663-668, June 2011),N: 249

ΒΕΛΤΙΩΣΗ LVEF ΜΕΤΑ ΑΠΟ ΚΑΤΑΛΥΣΗ

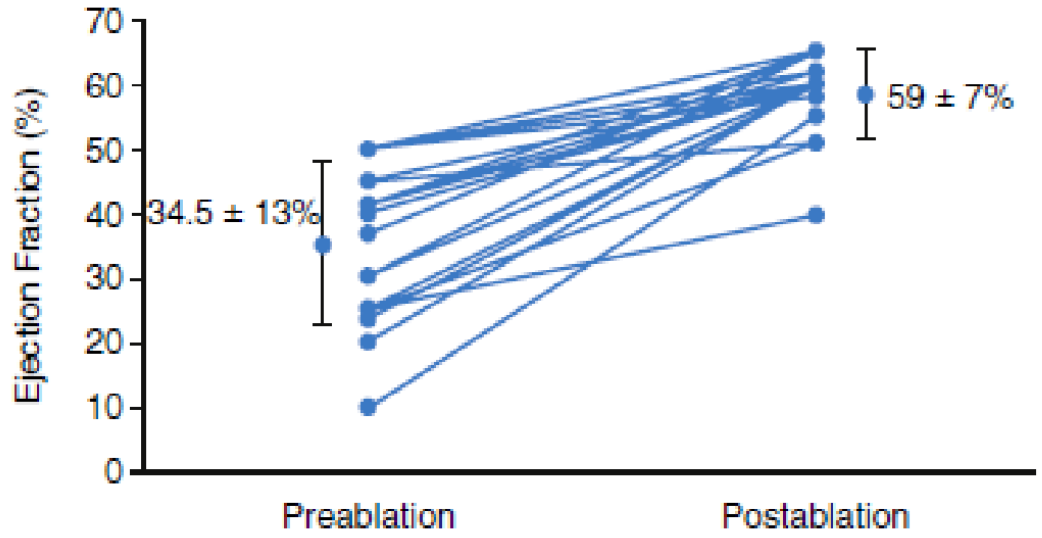
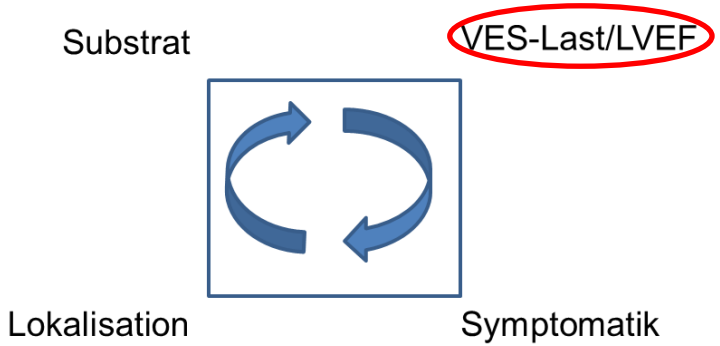


FIGURE 80.4 Ejection fractions before and after catheter ablation of frequent premature ventricular complexes in patients with a successful outcome. Mean ejection fractions and standard deviations are indicated. (From Bogun F, Crawford T, Reich S, et al. Radiofrequency ablation of frequent, idiopathic premature ventricular complexes: comparison with a control group without intervention. *Heart Rhythm*. 2007;4:863-867.)

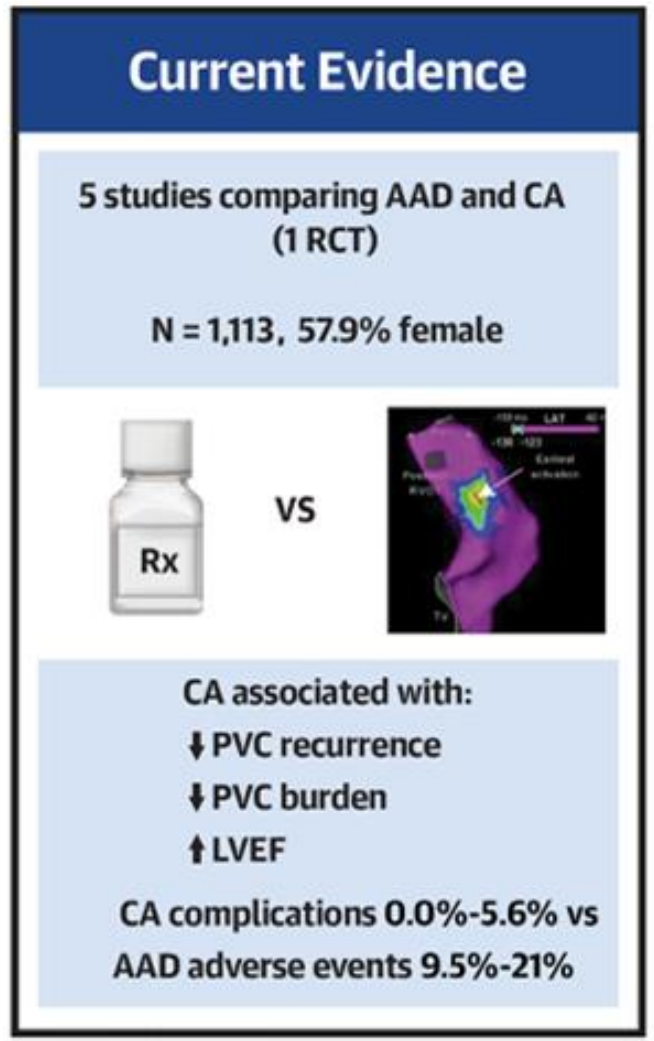


JACC: CLINICAL ELECTROPHYSIOLOGY VOL. 9, NO. 6, 2023
JUNE 2023:873-885

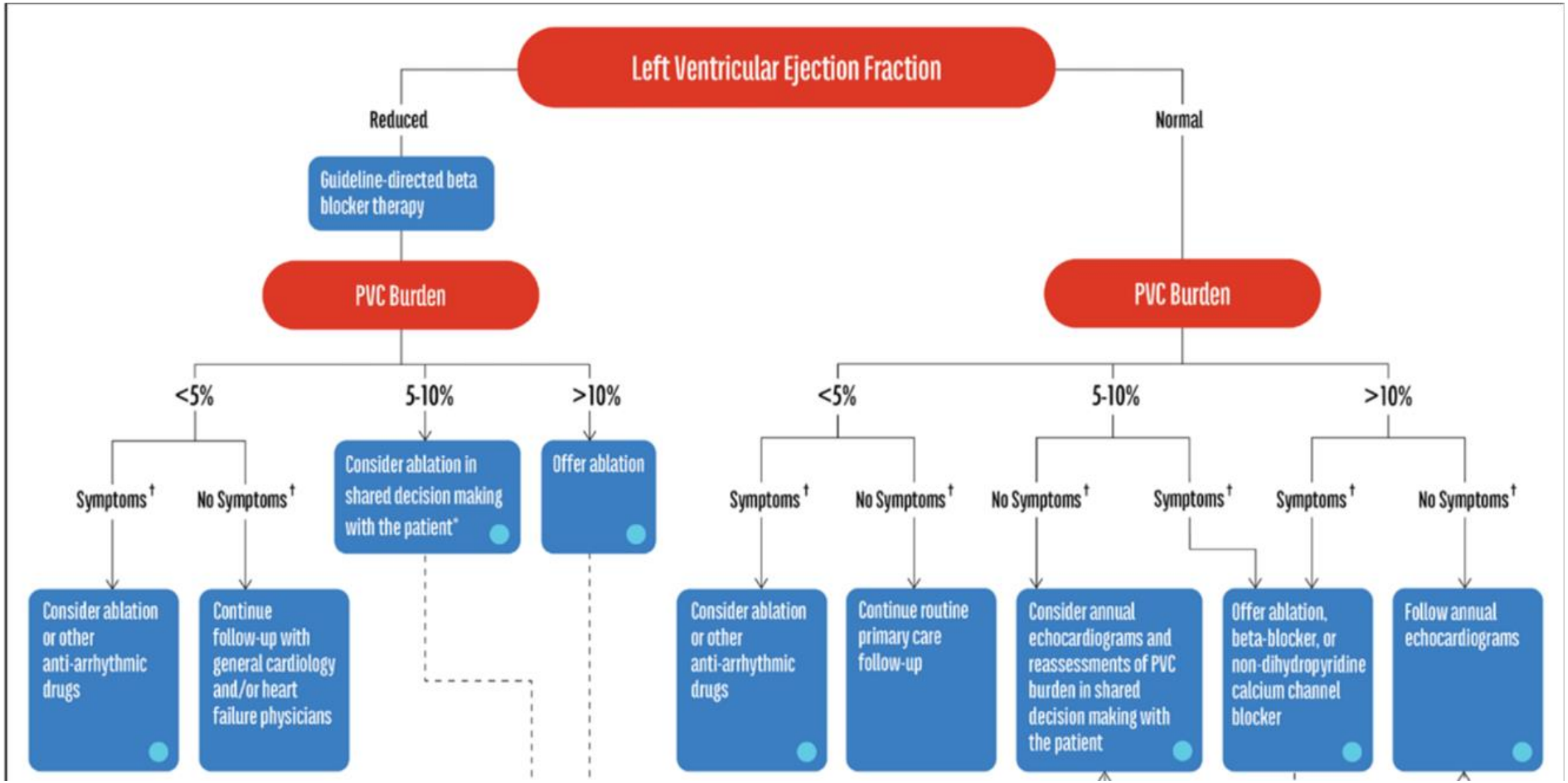
TABLE 5 A Summary of Registered Clinical Trials That Will Compare AAD vs CA for the Treatment of PVCs

Study (First Author)	Location	Year Registered	Description	Estimated Enrollment	Inclusion
ECTOPIA (Haanschoten et al)[35]	Isala hospital, Zwolle, the Netherlands	2019	Randomized trial comparing CA with 2 different AADs (sotalol vs flecainide + verapamil) in a 1:1:1 ratio with a crossover design in the AAD arm	180	PVC/NSVT burden ≥5% on 24-h Holter monitor with no structural or coronary heart disease
PAPS pilot study (Huizar et al)[36]	McGuire VA Medical Center, Virginia, USA	2017	Randomized, open-label, prospective trial comparing CA vs AAD (amiodarone preferred)	140 (39 to be collected in pilot)	PVCs (≥10% burden) and cardiomyopathy (LVEF ≤45%)
CAT-PVC (Hindricks et al)[37]	Heart Center Leipzig, Leipzig, Germany	2017	Randomized, open-label, parallel assignment trial comparing CA and amiodarone	80	Structural heart disease with or without reduced LVEF PLUS PVC frequency >10,000/24-h or symptoms or biventricular pacing <92%
AVATAR (Bolognese et al)[38]	Ospedale S. Donato, Arezzo, Italy	2013	Randomized, parallel, open-label study comparing CA and AAD (flecainide or propafenone or sotalol)	NA	Outflow tract PVC with frequency >2,000/24 h or symptomatic VT or reduced LVEF

CENTRAL ILLUSTRATION Cathe
Current Evidence



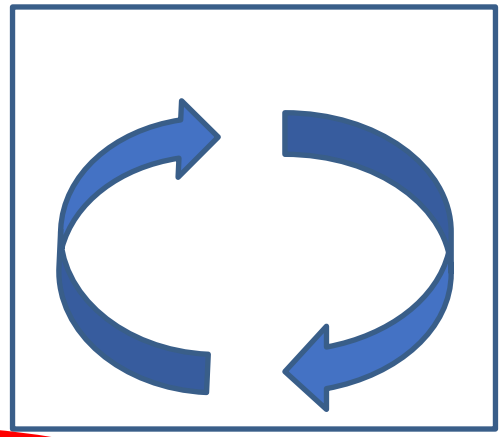
De Silva K, et al. J Am Coll Cardiol EP. 2023;9(


Left Ventricular Ejection Fraction
Reduced
Guideline-directed beta blocker therapy
PVC Burden
<5%
5-10%
>10%
Symptoms †
No Symptoms †
Consider ablation or other anti-arrhythmic drugs
Continue follow-up with general cardiology and/or heart failure physicians
Consider ablation in shared decision making with the patient*
Offer ablation
Normal
PVC Burden
<5%
5-10%
>10%
Symptoms †
No Symptoms †
No Symptoms †
Symptoms †
Symptoms †
No Symptoms †
Consider ablation or other anti-arrhythmic drugs
Continue routine primary care follow-up
Consider annual echocardiograms and reassessments of PVC burden in shared decision making with the patient
Offer ablation, beta-blocker, or non-dihydropyridine calcium channel blocker
Follow annual echocardiograms

ΠΑΡΑΜΕΤΡΟΙ ΠΟΥ ΠΡΕΠΕΙ ΝΑ ΛΗΦΘΟΥΝ ΥΠΟΨΙΝ

ΥΠΟΣΤΡΩΜΑ

ΦΟΡΤΙΟ VPB/ LVEF



ΣΗΜΕΙΟ ΠΡΟΕΛΕΥΣΗΣ

ΣΥΜΠΤΩΜΑΤΑ

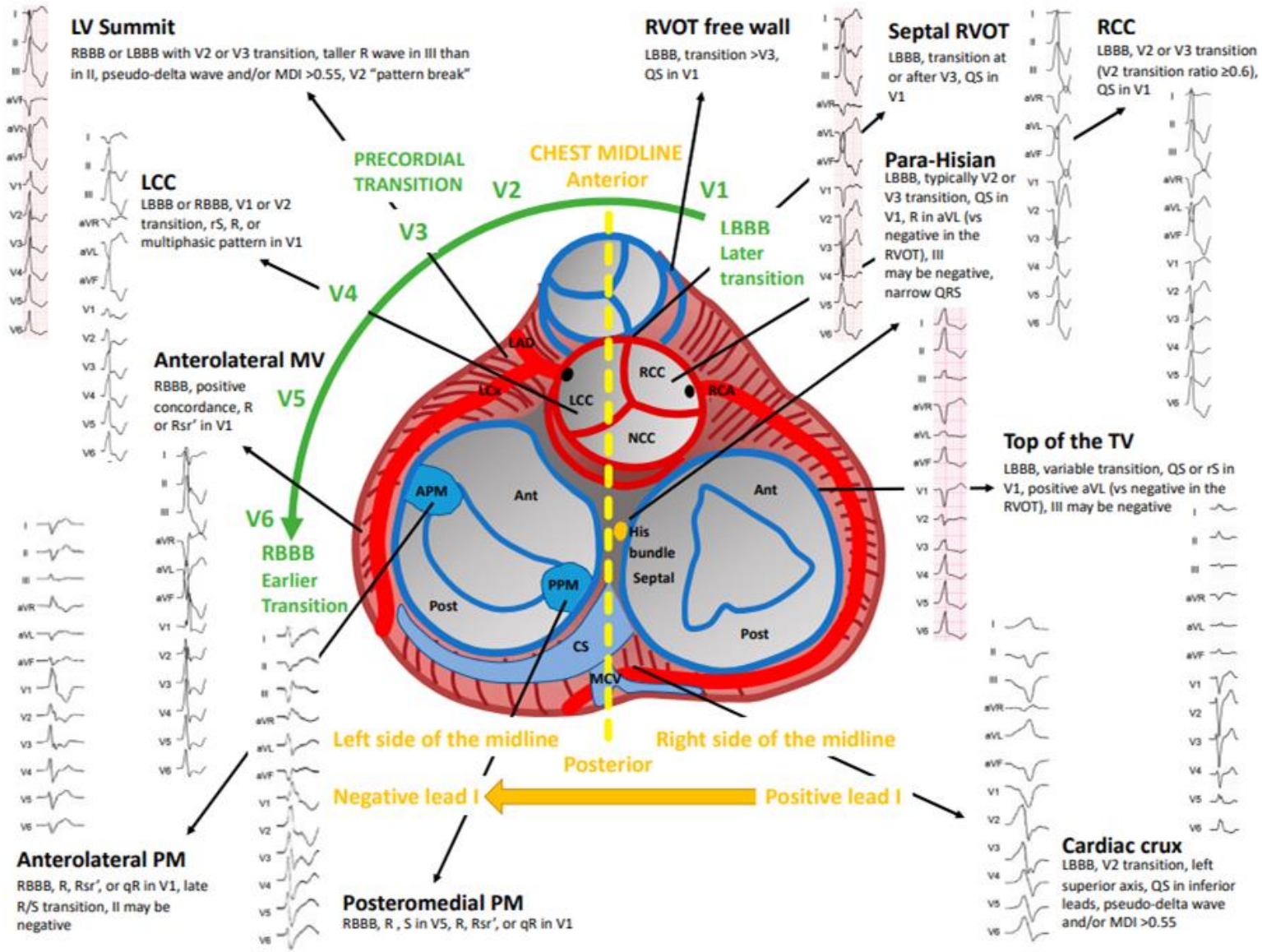
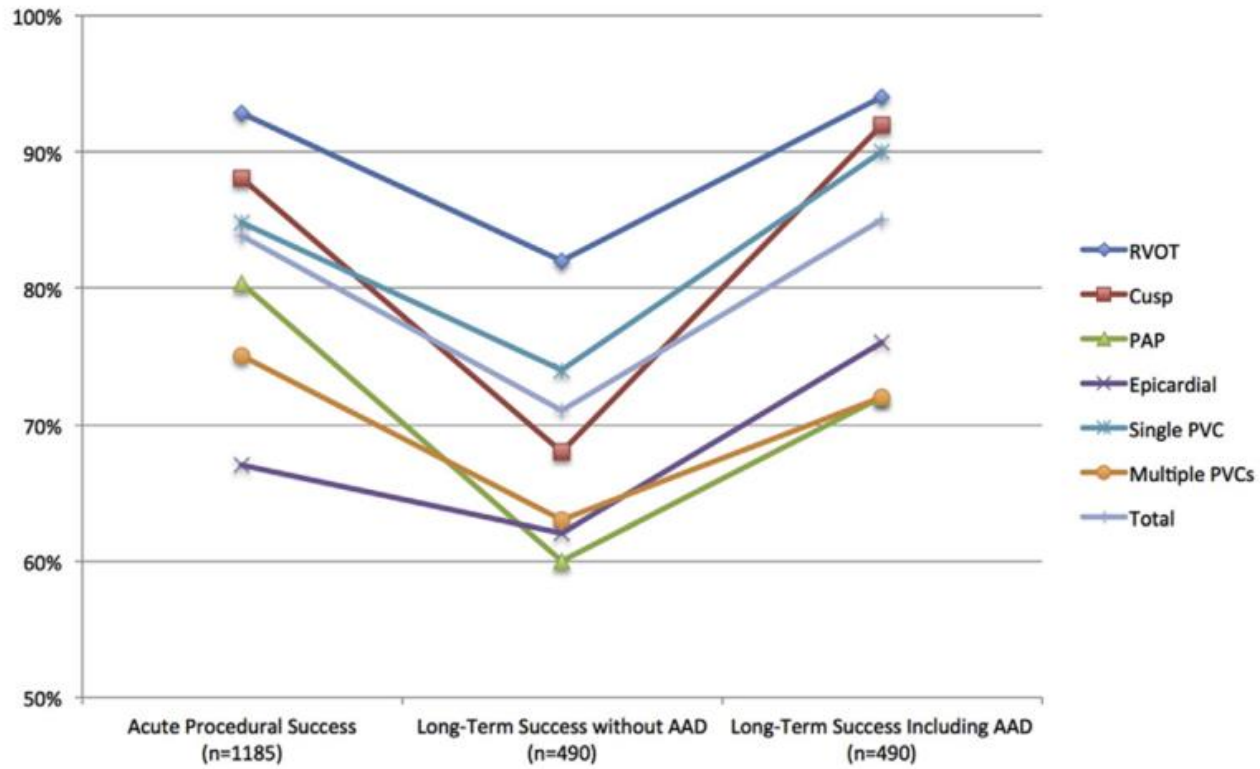


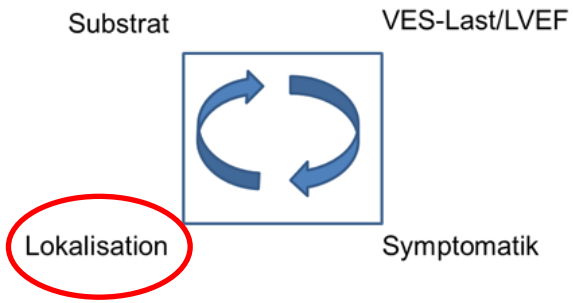
Figure 1. Schematic representation of the main sites of origin of idiopathic premature ventricular contractions and their ECG features.

ΣΗΜΑΣΙΑ ΤΟΥ ΣΗΜΕΙΟΥ ΠΡΟΕΛΕΥΣΗΣ VPB

FIGURE 1 Acute and Long-Term Ablation Success

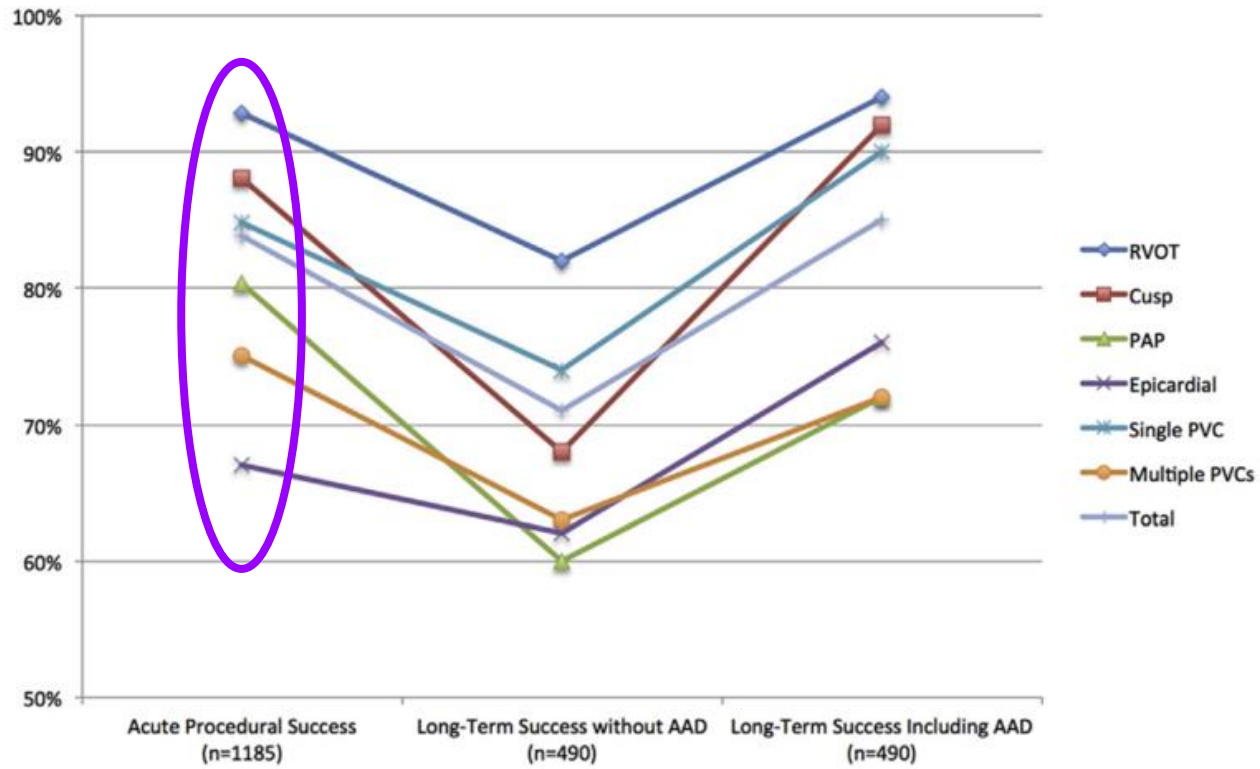


Acute and long-term success rates after ablation of premature ventricular complexes (PVCs) with and without the use of antiarrhythmic drugs (AADs). Acute procedural success data are for the entire cohort, whereas long-term success data are for 490 patients at centers where Holter monitoring was performed routinely after ablation. Results are shown by PVC location and single versus multiple PVCs. PAP = papillary muscle; RVOT = right ventricular outflow tract.

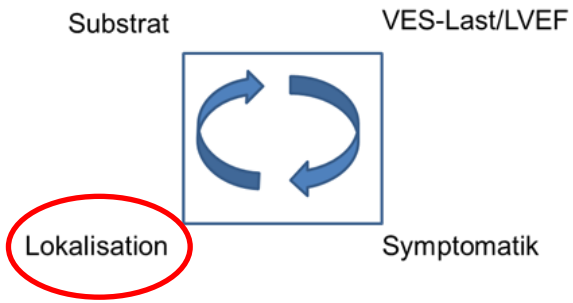


ΣΗΜΑΣΙΑ ΤΟΥ ΣΗΜΕΙΟΥ ΠΡΟΕΛΕΥΣΗΣ VPB

FIGURE 1 Acute and Long-Term Ablation Success

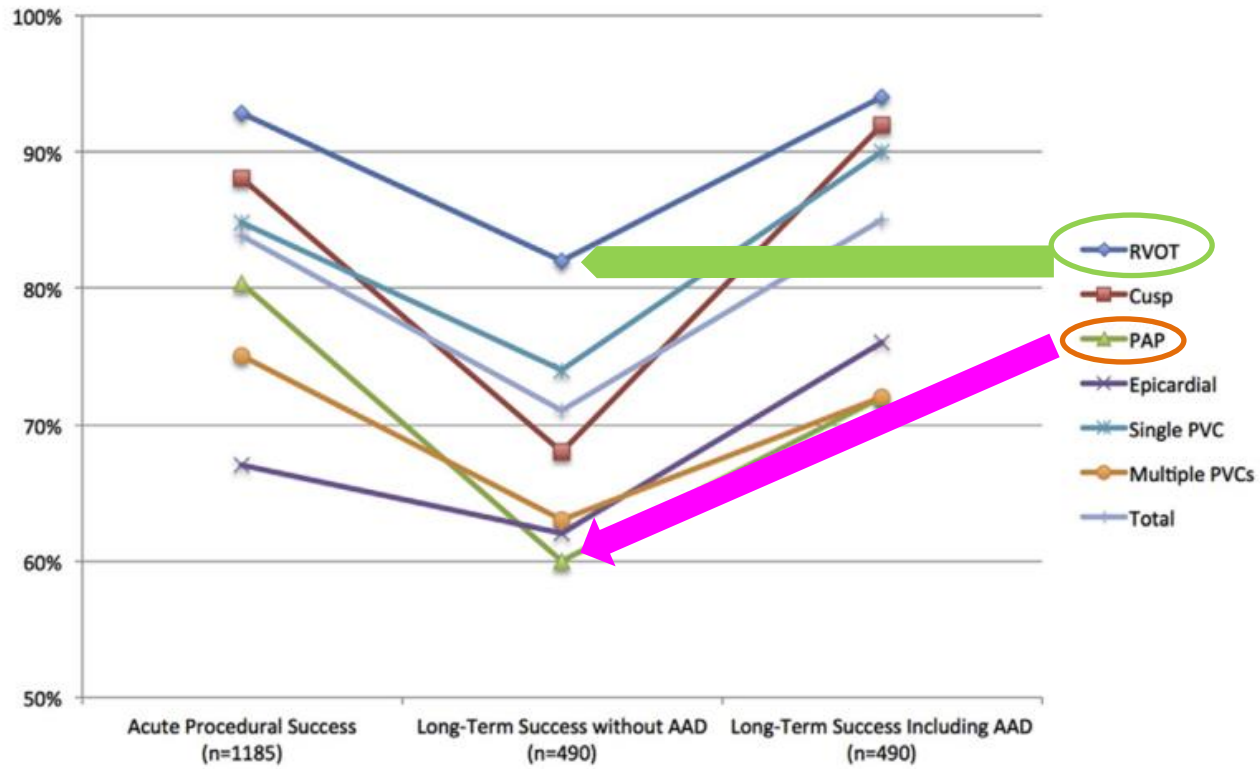


Acute and long-term success rates after ablation of premature ventricular complexes (PVCs) with and without the use of antiarrhythmic drugs (AADs). Acute procedural success data are for the entire cohort, whereas long-term success data are for 490 patients at centers where Holter monitoring was performed routinely after ablation. Results are shown by PVC location and single versus multiple PVCs. PAP = papillary muscle; RVOT = right ventricular outflow tract.

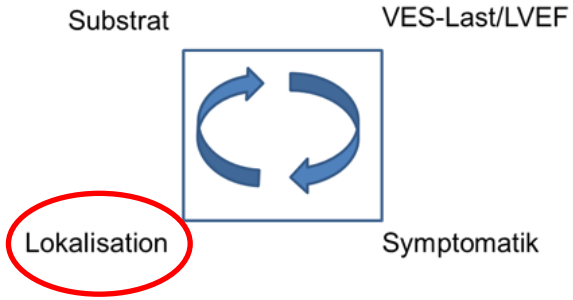


ΣΗΜΑΣΙΑ ΤΟΥ ΣΗΜΕΙΟΥ ΠΡΟΕΛΕΥΣΗΣ VPB

FIGURE 1 Acute and Long-Term Ablation Success

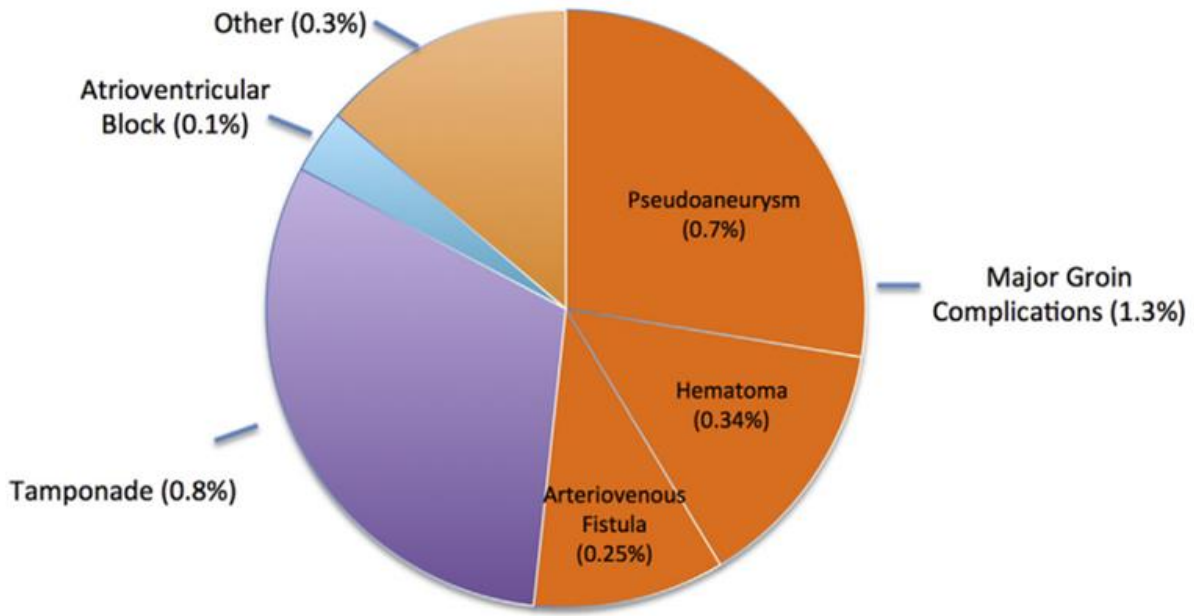


Acute and long-term success rates after ablation of premature ventricular complexes (PVCs) with and without the use of antiarrhythmic drugs (AADs). Acute procedural success data are for the entire cohort, whereas long-term success data are for 490 patients at centers where Holter monitoring was performed routinely after ablation. Results are shown by PVC location and single versus multiple PVCs. PAP = papillary muscle; RVOT = right ventricular outflow tract.

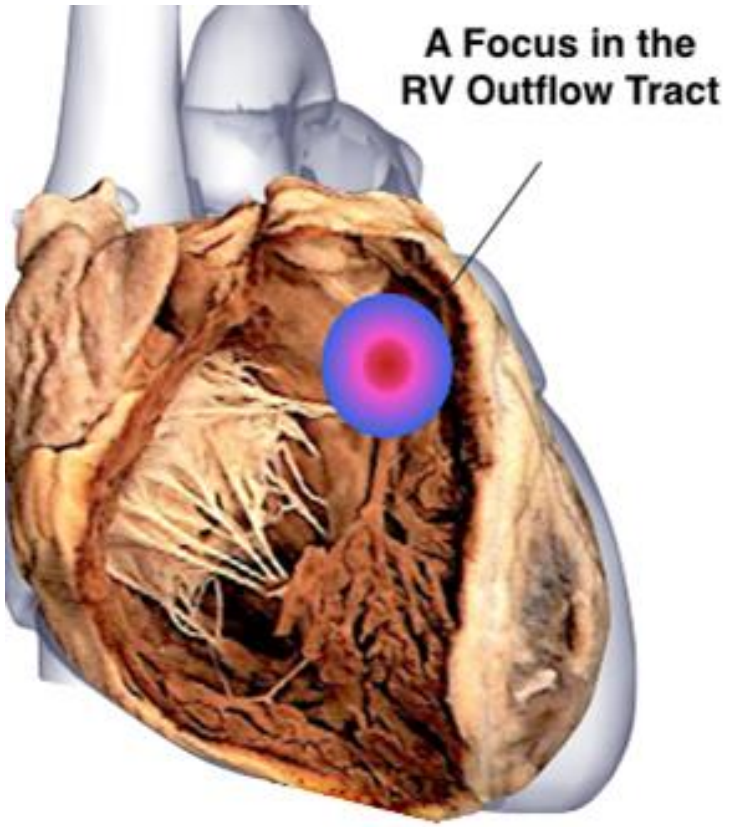


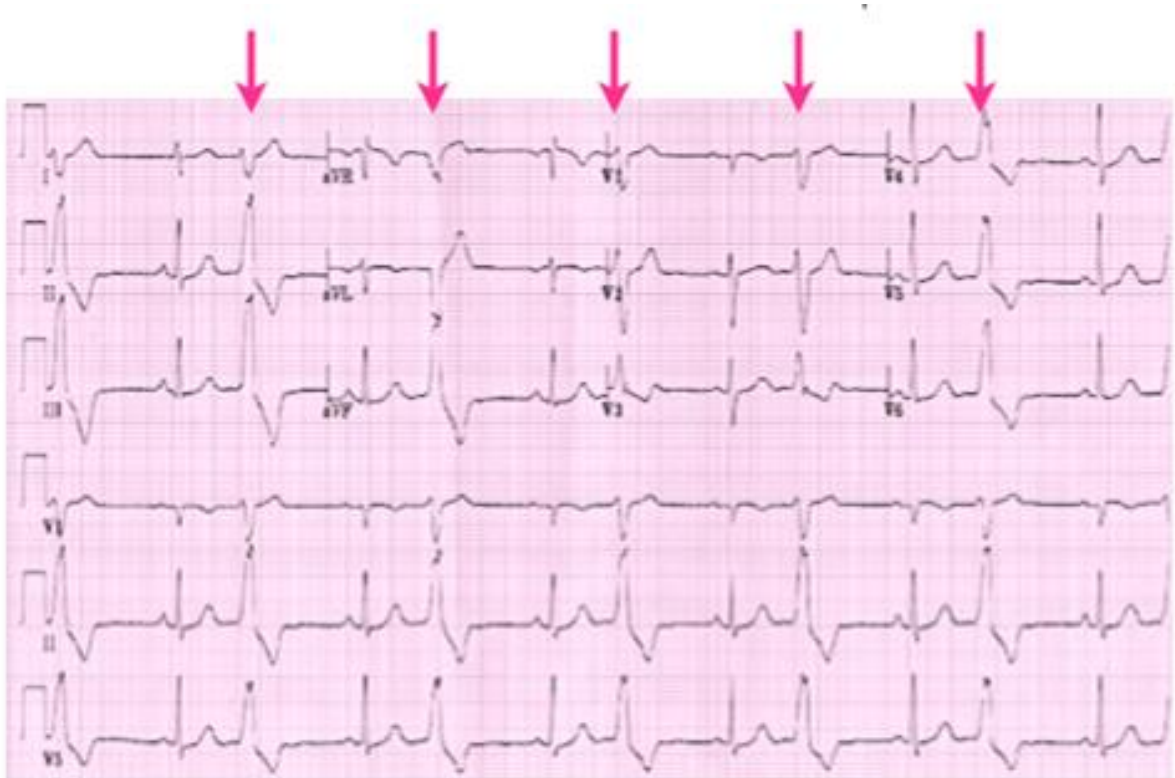
ΠΟΣΟΣΤΟ ΕΠΙΠΛΟΚΩΝ ABLATION

FIGURE 4 Distribution of Major Complications (Total 2.4%)



Groin complications constituted more than one-half of all major complications after ablation. Cardiac tamponade was the next most common major complication at a rate of 0.8%.





Isolated RV outflow tract ectopics (arrows)

ΣΥΝΟΨΗ

ΒΑΣΙΚΗ ΚΑΡΔΙΟΛΟΓΙΚΗ ΔΙΑΓΝΩΣΤΙΚΗ ΠΡΟΣΕΓΓΙΣΗ:

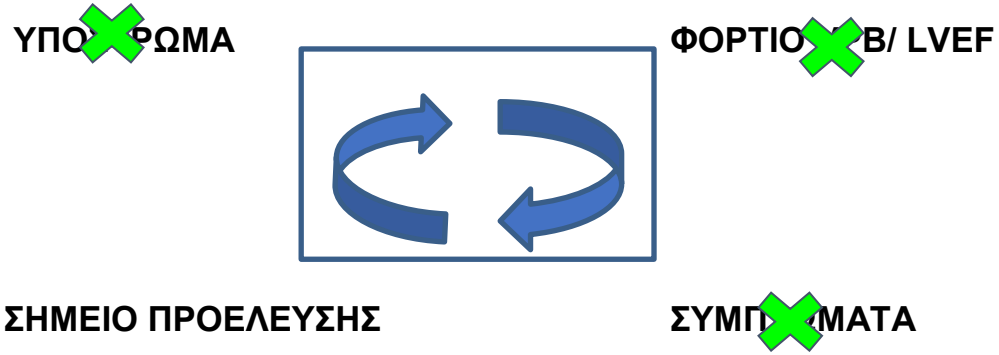
- **ΑΤΟΜΙΚΟ ΑΝΑΜΝΗΣΤΙΚΟ → ΣΥΓΚΟΠΗ, ΑΙΣΘΗΜΑ ΠΑΛΜΩΝ**
- **12-L- ECG → ΚΑΤΑΓΡΑΦΗ ΜΟΡΦΟΛΟΓΙΑΣ → ΑΔΡΟΣ ΕΝΤΟΠΙΣΜΟΣ ΕΣΤΙΑΣ ΠΡΟΕΛΕΥΣΗΣ, BRUGADA?**
- **HOLTER - ECG → ΠΡΟΣΔΙΟΡΙΣΜΟΣ ΑΝΑΛΟΓΙΚΟΥ ΦΟΡΤΙΟΥ**
- **ECHO → LVEF; , ΕΝΔΕΙΞΕΙΣ ΔΟΜΙΚΗΣ ΝΟΣΟΥ;**
- **ΔΟΚΙΜΑΣΙΑ ΚΟΠΩΣΕΩΣ, CARD-CT → ΕΝΔΕΙΞΕΙΣ ΣΤΕΦ. ΝΟΣΟΥ —> CORO/PCI**

ΕΠΙΠΡΟΣΘΕΤΟΣ ΕΛΕΓΧΟΣ:

- **CARD-MRI → ARVC, ΙΝΩΣΗ ;**

ΣΥΣΤΑΣΗ ΘΕΡΑΠΕΙΑΣ ΑΣΥΜΠΤΩΜΑΤΙΚΗΣ ΕΚΤΑΚΤΟΣΥΣΤΟΛΙΑΣ

- ΧΩΡΙΣ ΔΟΜΙΚΗ ΝΟΣΟ
- ΑΝΑΛΟΓΙΚΟ ΦΟΡΤΙΟ < 20%
- ΦΥΣΙΟΛΟΓΙΚΟ LVEF



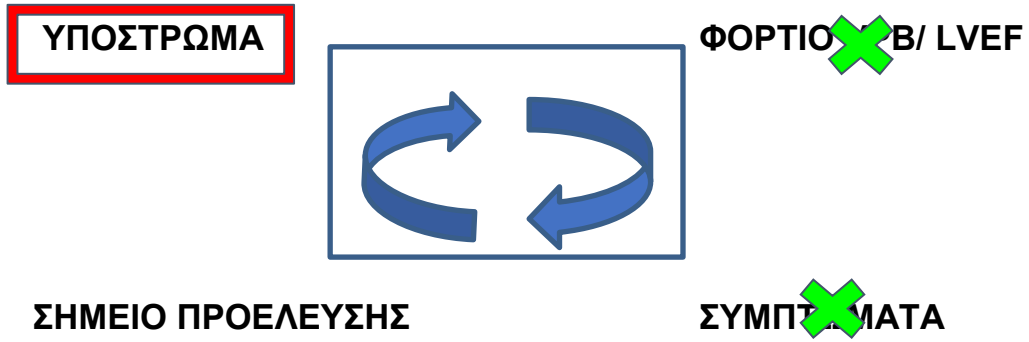
- **ΚΑΜΜΙΑ ΘΕΡΑΠΕΙΑ ΑΠΑΡΑΙΤΗΤΗ**
- **ΤΑΚΤΙΚΟΣ ΕΠΑΝΕΛΕΓΧΟΣ ΜΕ ECHO ΚΑΙ HOLTER-ECG**

Empfehlungsgrad (IC)

EHRA/HRS/APHRS Expert consensus on ventricular arrhythmias 2014

ΣΥΣΤΑΣΗ ΘΕΡΑΠΕΙΑΣ ΑΣΥΜΠΤΩΜΑΤΙΚΗΣ ΕΚΤΑΚΤΟΣΥΣΤΟΛΙΑΣ

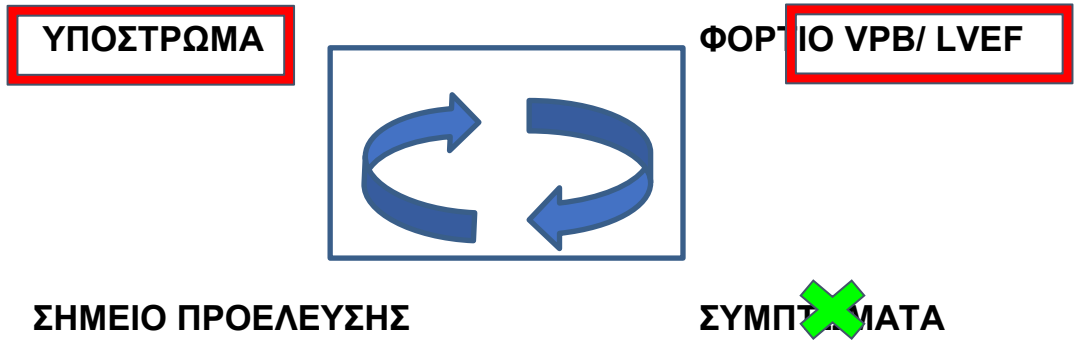
- **ΑΡΡΥΘΜΙΟΓΟΝΟ ΥΠΟΣΤΡΩΜΑ**
- **ΑΝΑΛΟΓΙΚΟ ΦΟΡΤΙΟ < 20%**
- **ΦΥΣΙΟΛΟΓΙΚΟ LVEF**



- **ΠΡΟΣΠΑΘΕΙΑ ΘΕΡΑΠΕΙΑΣ ΠΡΩΤΟΓΕΝΟΥΣ ΑΙΤΙΑΣ**
- **ΕΝΑΡΞΗ ΑΝΤΙΑΡΡΥΘΜΙΚΗΣ ΑΓΩΓΗΣ, πχ b-BLOCKER**
- **ΤΑΚΤΙΚΟΣ ΕΠΑΝΕΛΕΓΧΟΣ ΜΕ ECHO ΚΑΙ HOLTER-ECG**

ΣΥΣΤΑΣΗ ΘΕΡΑΠΕΙΑΣ ΑΣΥΜΠΤΩΜΑΤΙΚΗΣ ΕΚΤΑΚΤΟΣΥΣΤΟΛΙΑΣ

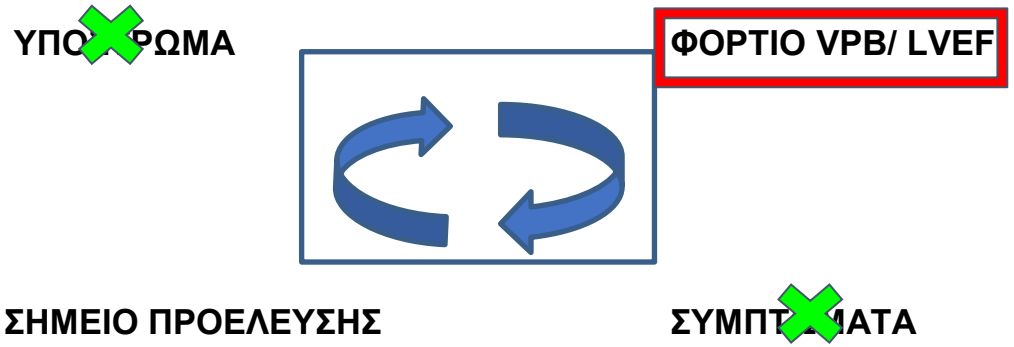
- **ΑΡΡΥΘΜΙΟΓΟΝΟ ΥΠΟΣΤΡΩΜΑ**
- **ΦΟΡΤΙΟ >10%**
- **ΜΕΙΩΜΕΝΟ LVEF**



- **ΠΡΟΣΠΑΘΕΙΑ ΘΕΡΑΠΕΙΑΣ ΠΡΩΤΟΓΕΝΟΥΣ ΑΙΤΙΑΣ**
- **ΕΝΑΡΞΗ ΑΝΤΙΑΡΡΥΘΜΙΚΗΣ ΑΓΩΓΗΣ, πχ b-BLOCKER**
- **ΤΑΚΤΙΚΟΣ ΕΠΑΝΕΛΕΓΧΟΣ ΜΕ ECHO ΚΑΙ HOLTER-ECG**
- **Ablation (Class IIa)**

ΣΥΣΤΑΣΗ ΘΕΡΑΠΕΙΑΣ ΑΣΥΜΠΤΩΜΑΤΙΚΗΣ ΕΚΤΑΚΤΟΣΥΣΤΟΛΙΑΣ

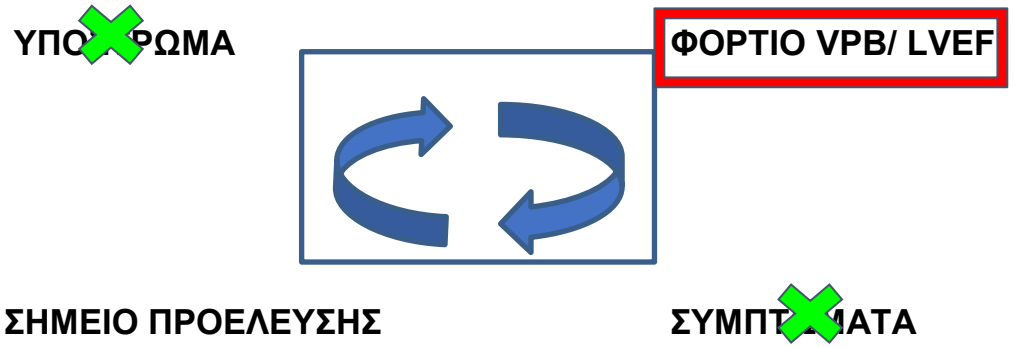
- ΧΩΡΙΣ ΔΟΜΙΚΗ ΝΟΣΟ
- ΑΝΑΛΟΓΙΚΟ ΦΟΡΤΙΟ > 20%
- ΦΥΣΙΟΛΟΓΙΚΟ LVEF



- ΘΕΡΑΠΕΙΑ ΜΕ ΑΝΤΙΑΡΡΥΘΜΙΚΑ
- ΤΑΚΤΙΚΟΣ ΕΠΑΝΕΛΕΓΧΟΣ ΜΕ ECHO ΚΑΙ HOLTER-ECG
- ΕΝΔΕΧΟΜΕΝΩΣ ABLATION (Class IIb)

ΣΥΣΤΑΣΗ ΘΕΡΑΠΕΙΑΣ ΑΣΥΜΠΤΩΜΑΤΙΚΗΣ ΕΚΤΑΚΤΟΣΥΣΤΟΛΙΑΣ

- ΧΩΡΙΣ ΔΟΜΙΚΗ ΝΟΣΟ
- ΑΝΑΛΟΓΙΚΟ ΦΟΡΤΙΟ > 10%
- ΜΕΙΩΜΕΝΟ LVEF



- ΘΕΡΑΠΕΙΑ ΜΕ ΑΝΤΙΑΡΡΥΘΜΙΚΑ (RVOT→ ABLATION)
- ΕΑΝ ΤΑ ΑΝΤΙΑΡΡΥΘΜΙΚΑ ΑΠΟΤΥΧΟΥΝ → ABLATION (Class I)


23ο Πανελλήνιο
Καρδιολογικό
Συνέδριο ΚΕΒΕ
08-10 Μαΐου 2025