Lo más relevante de la cardiología

…. en Arritmias

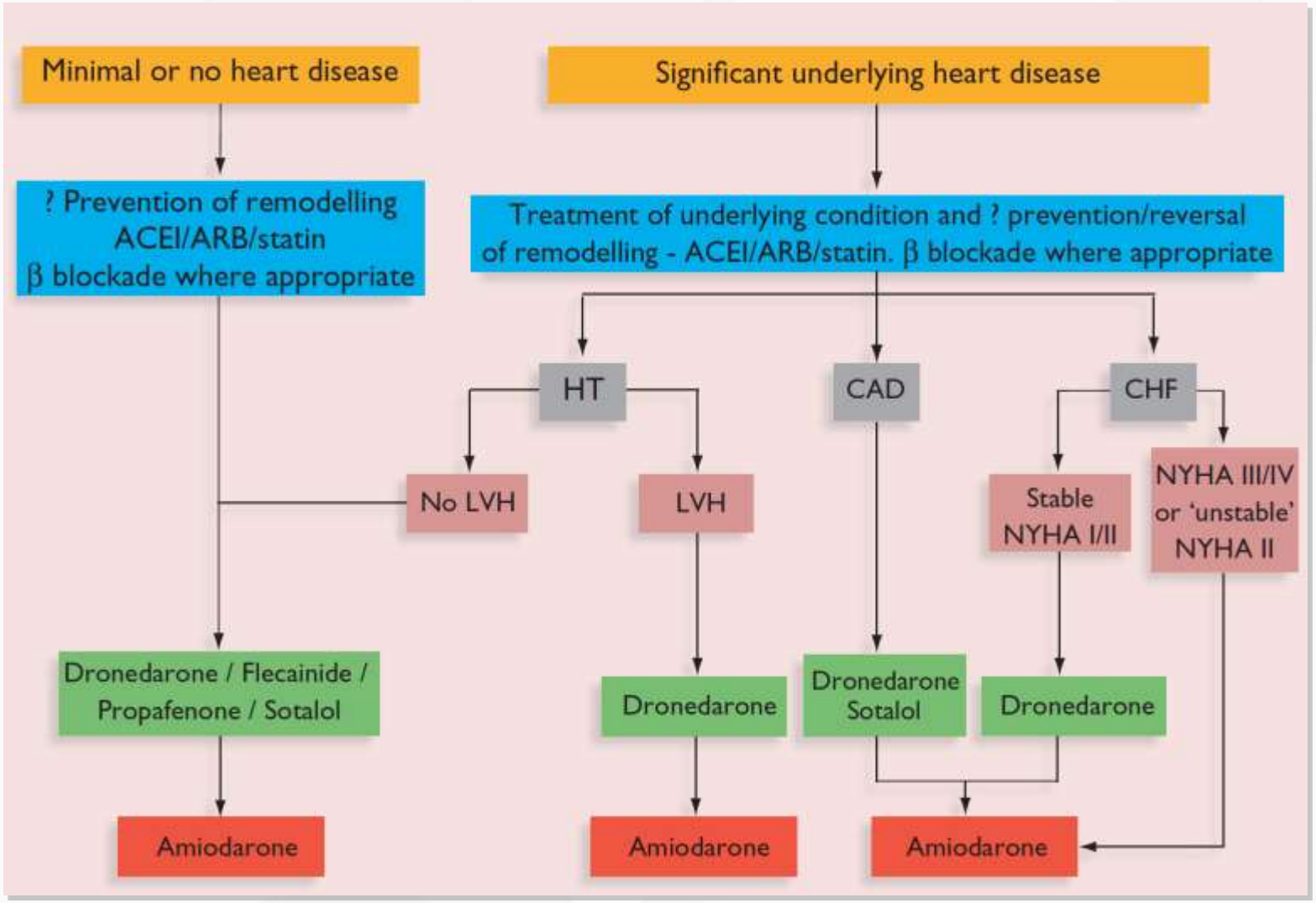
Gran cantidad de información

Interacción y solapamiento con otras áreas

A veces no sólo un artículo sino varios

Guidelines for the management of atrial fibrillation

European Heart Journal 2010; 31:2369–2429



MINISTERIO DE SANIDAD, POLÍTICA SOCIAL E IGUALDAD

agencia española de medicamentos y productos sanitarios

Agencia Española de Medicamentos y Productos Sanitarios AEMPS

DRONEDARONA (△ MULTAQ®): RIESGO DE ALTERACIONES HEPÁTICAS

La Agencia Española de Medicamentos y Productos Sanitarios (AEMPS) comunica a los profesionales sanitarios nueva información y medidas de vigilancia sobre alteraciones hepáticas asociadas al medicamento Multaq® (dronedarona):

- ***Deben realizarse pruebas de función hepática antes de iniciar el tratamiento con dronedarona y durante el mismo.***
- ***Si se confirma que los niveles de* Alanina aminotransferasa *(ALT) están incrementados ≥ 3 veces el límite normal superior, el tratamiento con dronedarona debe interrumpirse.***

U.S. Department of Health & Human Services

FDA U.S. Food and Drug Administration

Comunicado de la FDA sobre la seguridad de los medicamentos: Multaq (dronedarona) y el aumento en el riesgo de muerte y graves problemas cardiovasculares

Tabla 1: Eventos durante el estudio PALLAS hasta el 30 de junio de 2011.

	Multaq N=1572 n (%)	Placebo N=1577 n (%)	Índice de riesgo	p-valor
Muerte cerebrovascular, infarto del miocardio, accidente cerebrovascular, embolia sistémica*	32 (2)	14 (0.9)	2.3	0.009
Muerte, hospitalización cardiovascular no planificada*	118 (7.5)	81 (5.1)	1.5	0.006
Muerte	16 (1)	7 (0.4)	2.3	0.065
Infarto del miocardio	3 (0.2)	3 (0.2)	1.0	1
Accidente cerebrovascular	17 (1.1)	7 (0.4)	2.4	0.047
Hospitalización por problemas de salud	34 (2.2)	15 (1)	2.3	0.008

*covariantes primarias

Nota: Éstos son datos preliminares proporcionados por el fabricante; por lo tanto, los datos no han pasado procedimientos de control de calidad ni han sido completamente adjudicados.

Datos sobre Multaq

- Se usa para reducir el riesgo de hospitalización por evento cardiovascular en pacientes con fibrilación auricular paroxística o persistente (FA) o flutter auricular (FLA), con un reciente episodio de FA/FLA y factores de riesgo cardiaco asociados quienes están en ritmo sinusal o van a ser cardiovertidos [consulte la etiqueta de Multaq]
- Desde su aprobación en julio de 2009 hasta junio del 2011, se han distribuido aproximadamente 1 millón de recetas de Multaq y aproximadamente 241 000 reciben recetas de Multaq de las farmacias de atención ambulatoria en los EE.UU. [2]

MINISTERIO DE SANIDAD, POLÍTICA SOCIAL E IGUALDAD

agencia española de medicamentos y productos sanitarios

Agencia Española de Medicamentos y Productos Sanitarios
AEMPS

DRONEDARONA (MULTAQ®): CONCLUSIONES DE LA REVALUACIÓN DE SU RELACIÓN BENEFICIO-RIESGO

La AEMPS informa a los profesionales sanitarios sobre las conclusiones finales de la revaluación del balance beneficio-riesgo de dronedarona:

- **Dronedarona mantiene un balance beneficio-riesgo favorable en una población limitada de pacientes.**
- **Se han introducido nuevas restricciones de uso, contraindicaciones y recomendaciones de monitorización de las funciones cardiovascular, hepática, pulmonar y renal, al inicio y durante el tratamiento.**

Estas nuevas **restricciones son las siguientes:**

Dronedarona (Multaq®) está únicamente indicada en pacientes adultos clínicamente estables con fibrilación auricular (FA) paroxística o persistente para el mantenimiento del ritmo sinusal después de la cardioversión efectiva.

Debido a su perfil de seguridad, dronedarona solo debe utilizarse después de considerar otras alternativas de tratamiento. Tanto el inicio del tratamiento como el seguimiento del mismo debe realizarse bajo la supervisión de un médico especialista en cardiología.

A Randomized Active-Controlled Study Comparing the Efficacy and Safety of Vernakalant to Amiodarone in Recent-Onset Atrial Fibrillation

J Am Coll Cardiol. 2011;57;313-321

Estudio multicéntrico, aleatorizado, doble-ciego con controlador activo

- Criterios de inclusión:
  - Edad 18 a 85 años.
  - FA sintomática de 3 a 48 horas de duración.
  - Apto para cardioversión.

254 pacientes aleatorizados

232 tratados

116

Vernakalant

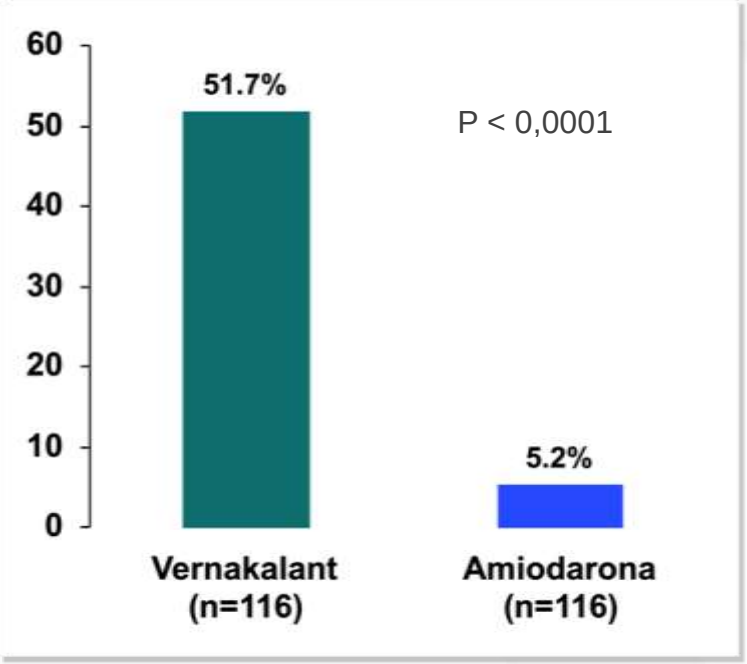
Amiodarona

116

A Randomized Active-Controlled Study Comparing the Efficacy and Safety of Vernakalant to Amiodarone in Recent-Onset Atrial Fibrillation

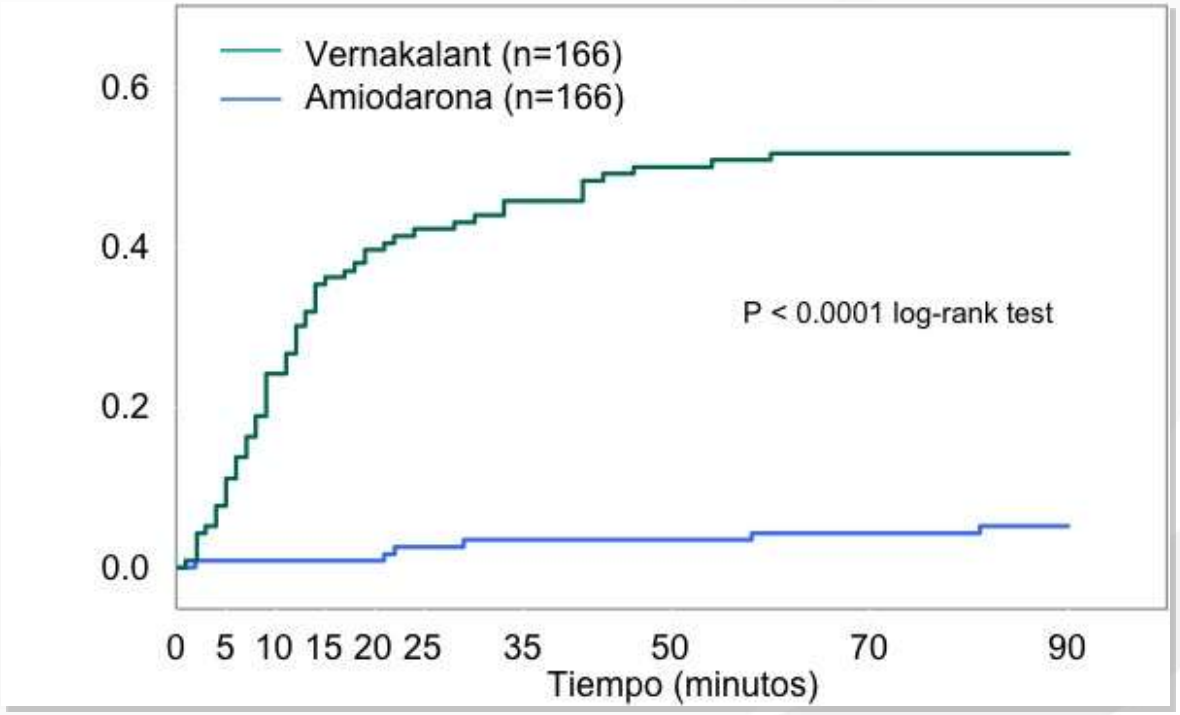
J Am Coll Cardiol. 2011;57;313-321

La mediana de tiempo a reversión con Vernakalant fue de 11 minutos.



Reversión de de FA a RS a los 90 minutos (%)

	10 min	25 min	35 min
Vernakalant	24,1%	42,2%	45,7%
Amiodarona	0,9%	2,6%	3,5%



CARDIO ACTUALIDAD 2011

ORIGINAL ARTICLE

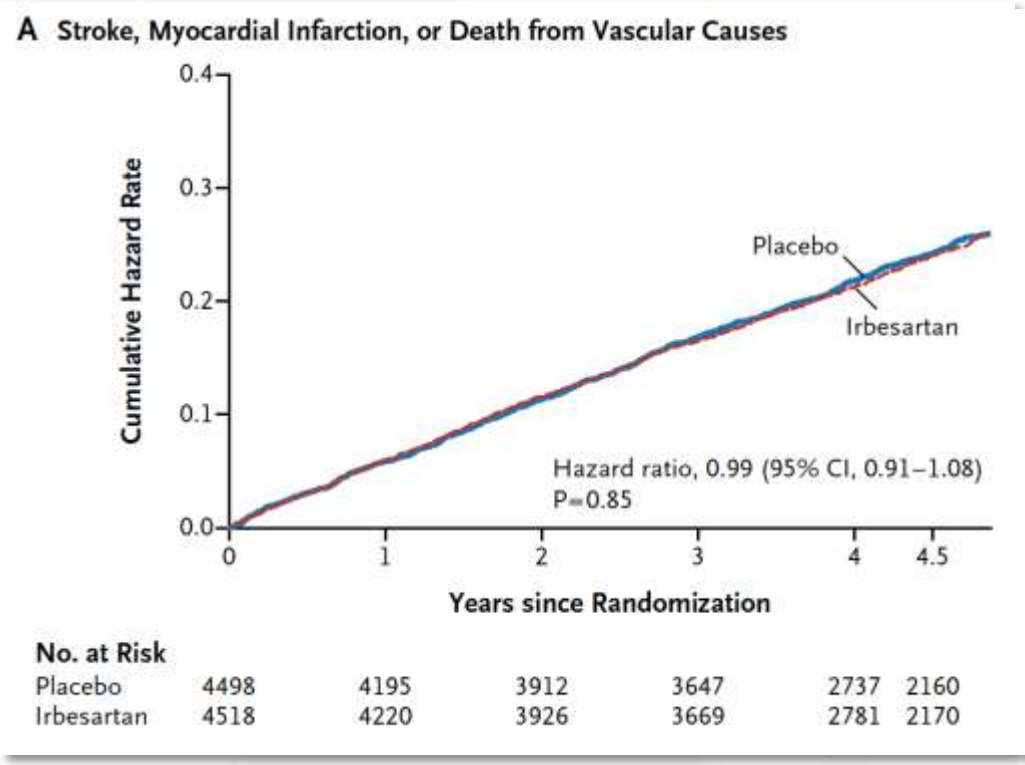
Irbesartan in Patients with Atrial Fibrillation

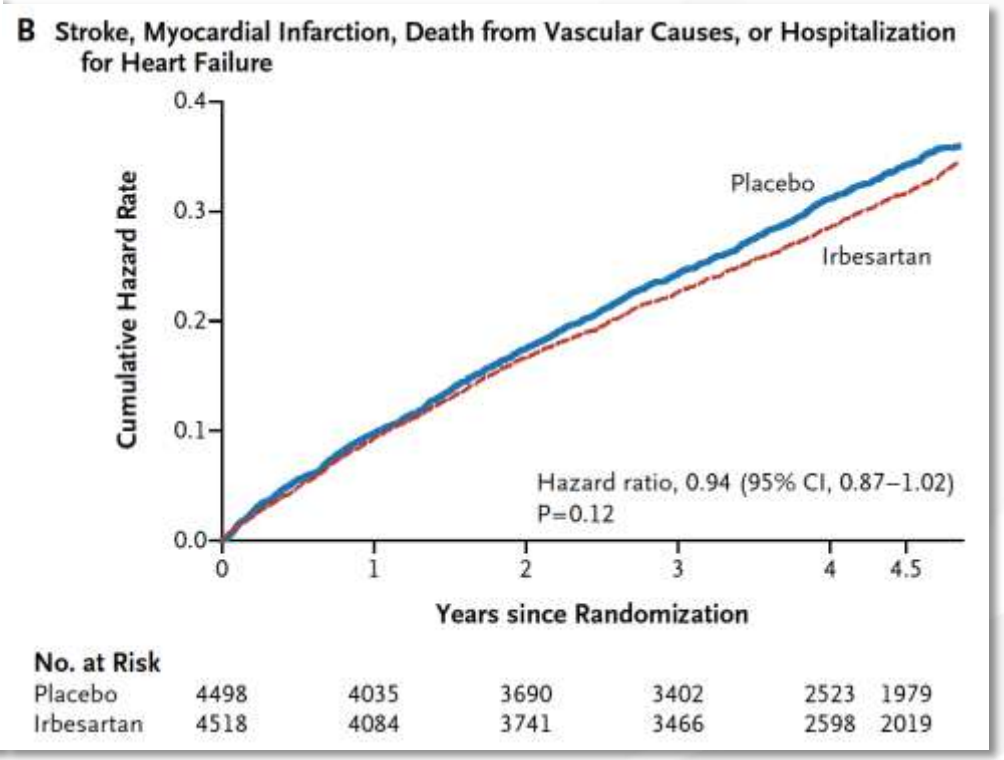
The ACTIVE I Investigators*

N Engl J Med 2011;364:928-38

METHODS

We randomly assigned patients with a history of risk factors for stroke and a systolic blood pressure of at least 110 mm Hg to receive either irbesartan at a target dose of 300 mg once daily or double-blind placebo.





ORIGINAL ARTICLE

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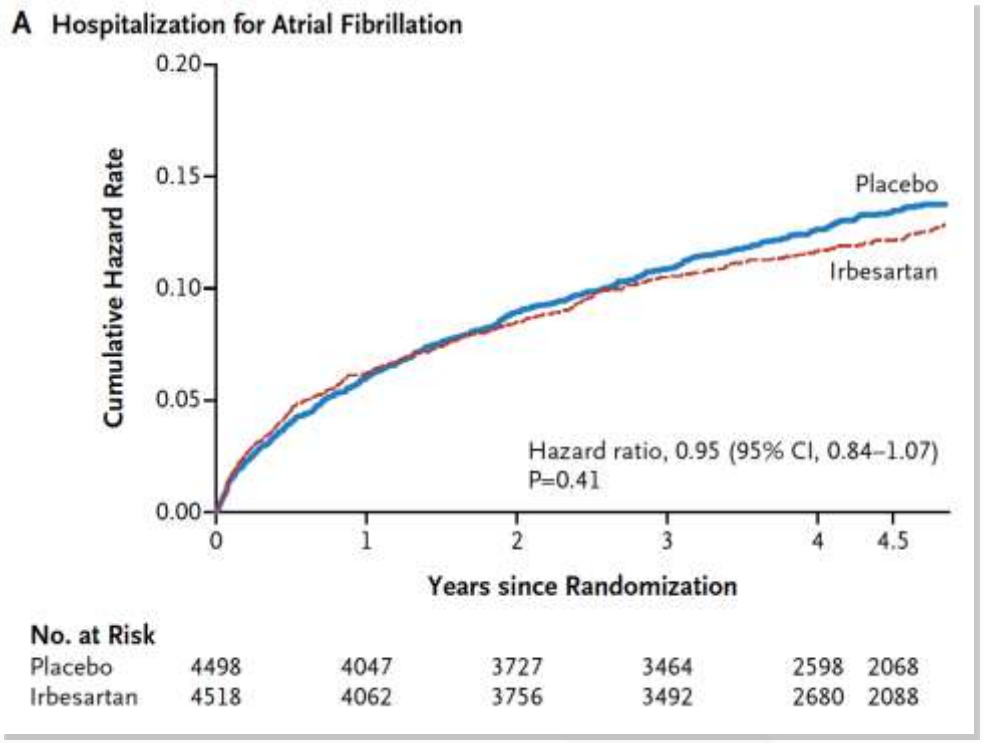
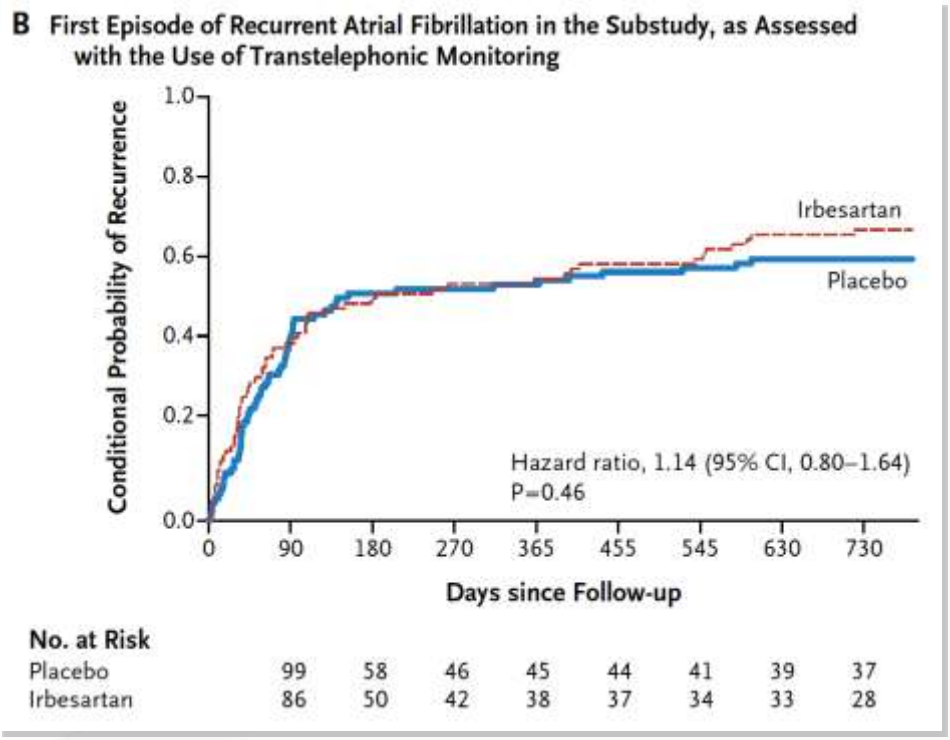




CONCLUSIONS

Irbesartan did not reduce cardiovascular events in patients with atrial fibrillation.

Effect of Lenient Versus Strict Rate Control on Cardiac Remodeling in Patients With Atrial Fibrillation

Data of the RACE II (RAte Control Efficacy in permanent atrial fibrillation II) Study

J Am Coll Cardiol 2011;58:942–9

Table 2 Echocardiographic Parameters According to Randomization Strategy

Echocardiographic Parameter	Lenient vs. Strict Rate Control	
	Difference in Δ (95% CI)	p Value
LA size, mm	1.6 (−0.3 to 3.4)	0.09
LA volume, ml (n = 317)	3.2 (−5.0 to 11.5)	0.88
LV end-diastolic diameter, mm	1.1 (−0.8 to 3.0)	0.24

Table 3 Echocardiographic Parameters According to Resting Heart Rate During All Follow-up Visits After the Dose-Adjustment Phase

Echocardiographic Parameter	80–110 Beats/Min vs. <80 Beats/Min	
	Difference in Δ (95% CI)	p Value
LA size, mm	1.5 (−0.8 to 3.8)	0.19
LA volume, ml	1.5 (−11.5 to 8.6)	0.77
LV end-diastolic diameter, mm	1.1 (−1.3 to 3.4)	0.37

Conclusions Female sex, not lenient rate control, seemed to be associated with significant adverse cardiac remodeling in patients with permanent AF …

2011 ACCF/AHA/HRS Focused Update on the Management of Patients With Atrial Fibrillation (Update on Dabigatran)

A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines

J Am Coll Cardiol 2011:1330–7

Table 2. Recommendation for Emerging Antithrombotic Agents

2011 Focused Update Recommendation	Comments
Class I	
1. Dabigatran is useful as an alternative to warfarin for the prevention of stroke and systemic thromboembolism in patients with paroxysmal to permanent AF and risk factors for stroke or systemic embolization who do not have a prosthetic heart valve or hemodynamically significant valve disease, severe renal failure (creatinine clearance <15 mL/min) or advanced liver disease (impaired baseline clotting function) (3). *(Level of Evidence: B)*	New recommendation

Dabigatran Versus Warfarin in Patients With Atrial Fibrillation

An Analysis of Patients Undergoing Cardioversion

Circulation. 2011;123:131-136

Conclusions

… the largest cardioversion experience to date …

The frequencies of stroke and major bleeding within 30 days of cardioversion on the 2 doses of dabigatran were low and comparable to those on warfarin with or without transesophageal echocardiography guidance.

Dabigatran is a reasonable alternative to warfarin in patients requiring cardioversion.

Table 1. Cardioversion, TEE, and Outcome

	D110		D150		Warfarin	
	n	%	n	%	n	%
Total randomized	6015		6076		6022	
Cardioversions performed	647*		672		664	
Electric	554	85.63	550	81.85	553	83.28
Pharmacological	91	14.06	122	18.15	111	16.72
TEE	165	25.50	162	24.11	88	13.25
Normal sinus rhythm at discharge	566	87.48	596	88.69	595	89.61
Stroke and systemic embolism	5	0.77	2	0.30	4	0.60
<30 d after cardioversion						
Major bleeding	11	1.70	4	0.60	4	0.60
<30 d after cardioversion						

CARDIO ACTUALIDAD 2011

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Apixaban in Patients with Atrial Fibrillation

N Engl J Med 2011;364:806-17

METHODS

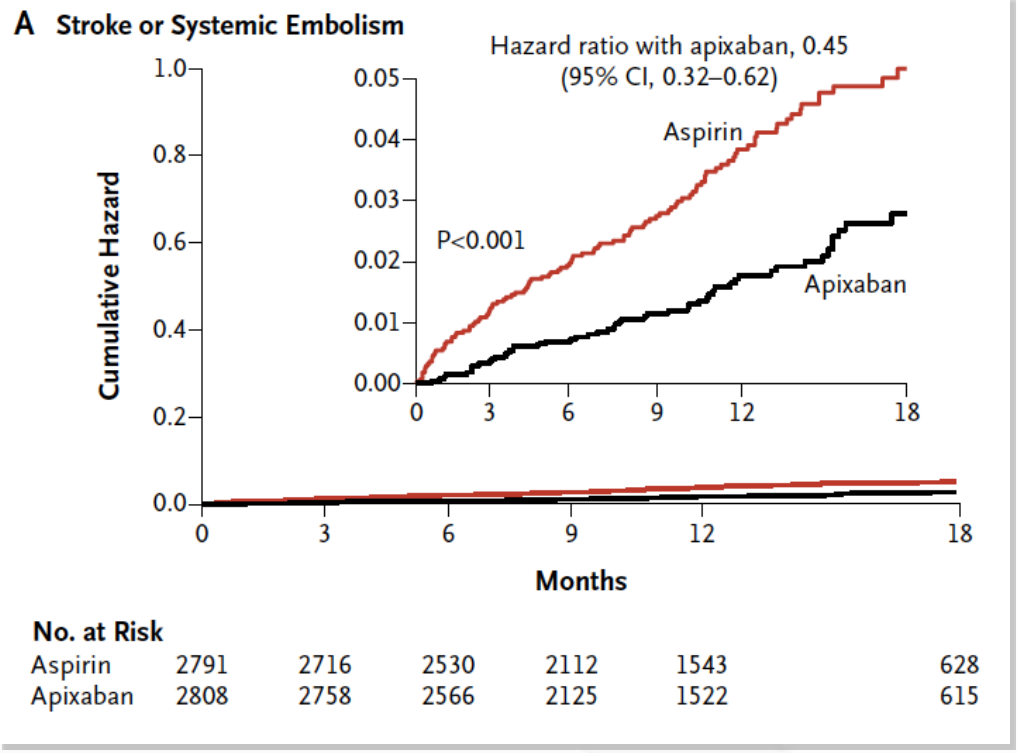
In a double-blind study, we randomly assigned 5599 patients with atrial fibrillation who were at increased risk for stroke and for whom vitamin K antagonist therapy was unsuitable to receive apixaban (at a dose of 5 mg twice daily) or aspirin (81 to 324 mg per day), to determine whether apixaban was superior. The mean follow up period was 1.1 years. The primary outcome was the occurrence of stroke or systemic embolism.

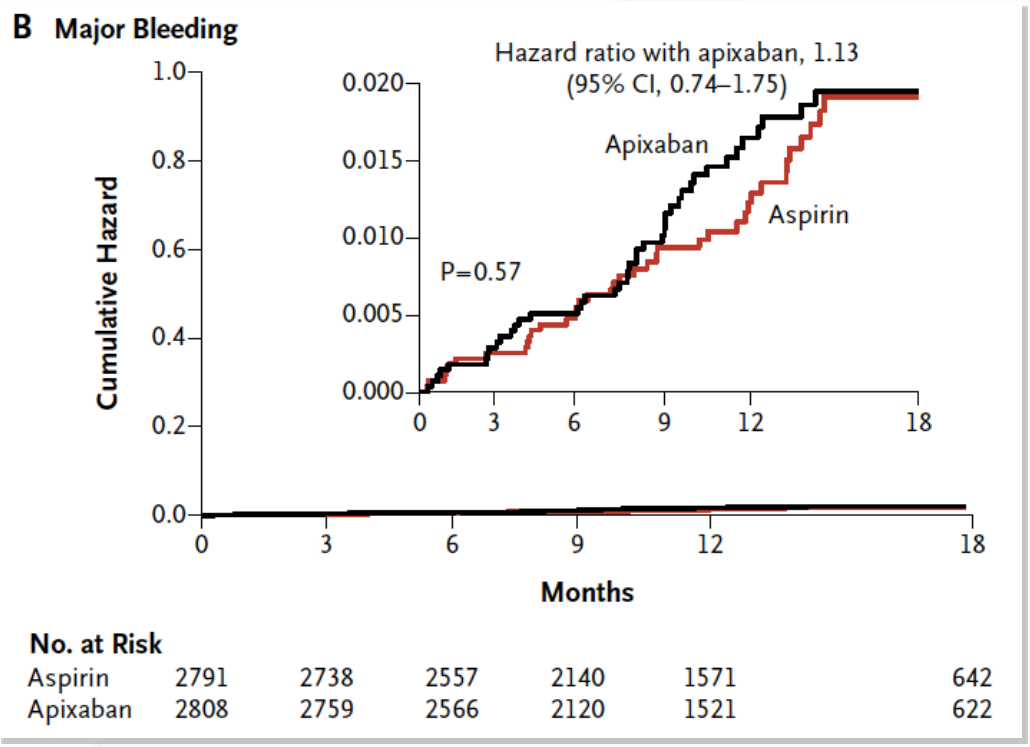
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Apixaban in Patients with Atrial Fibrillation

N Engl J Med 2011;364:806-17





CONCLUSIONS

In patients with atrial fibrillation for whom vitamin K antagonist therapy was unsuitable, apixaban reduced the risk of stroke or systemic embolism without significantly increasing the risk of major bleeding or intracranial hemorrhage.

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 SEPTEMBER 15, 2011 VOL. 365 NO. 11

Apixaban versus Warfarin in Patients with Atrial Fibrillation

N Engl J Med 2011;365:981-92

METHODS

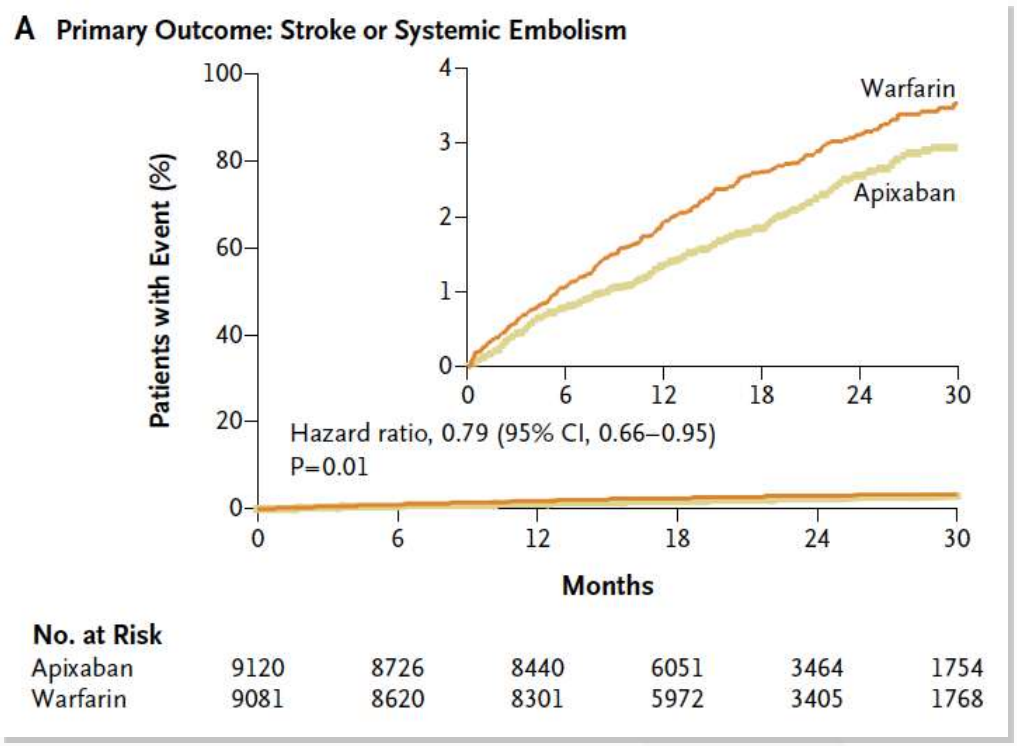
In this randomized, double-blind trial, we compared apixaban (at a dose of 5 mg twice daily) with warfarin (target international normalized ratio, 2.0 to 3.0) in 18,201 patients with atrial fibrillation and at least one additional risk factor for stroke. The primary outcome was ischemic or hemorrhagic stroke or systemic embolism. The trial was designed to test for noninferiority, with key secondary objectives of testing for superiority with respect to the primary outcome and to the rates of major bleeding and death from any cause.

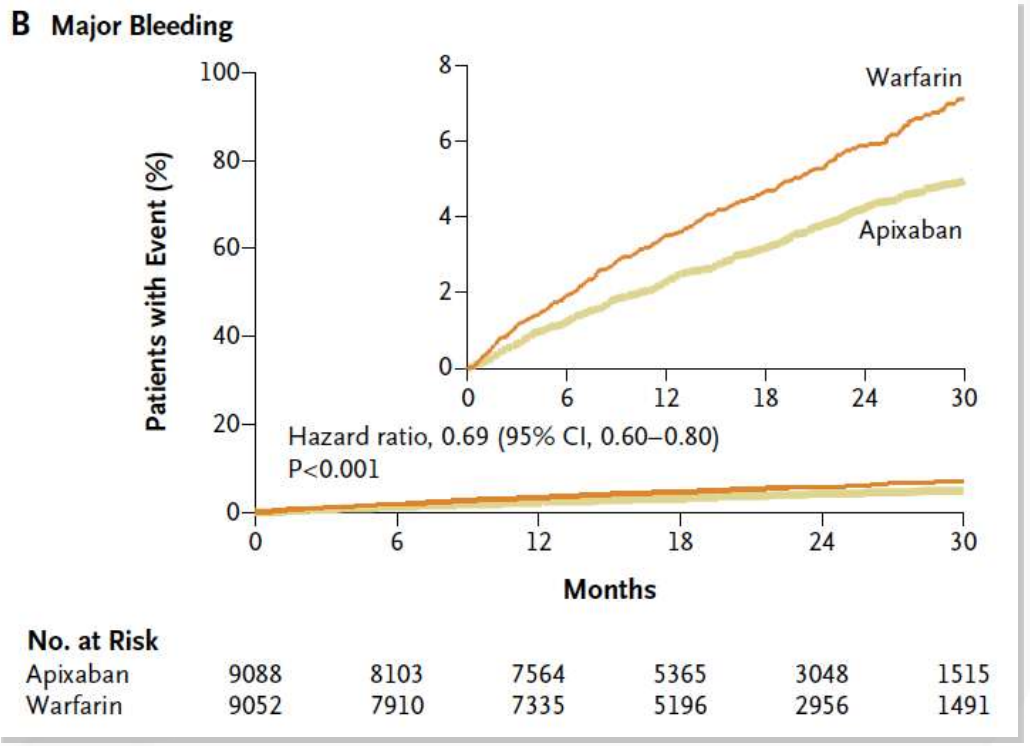
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Apixaban in Patients with Atrial Fibrillation

N Engl J Med 2011;364:806-17





CONCLUSIONS

In patients with atrial fibrillation, apixaban was superior to warfarin in preventing stroke or systemic embolism, caused less bleeding, and resulted in lower mortality.

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 SEPTEMBER 8, 2011 VOL. 365 NO. 10

Rivaroxaban versus Warfarin in Nonvalvular Atrial Fibrillation

N Engl J Med 2011;365:883-91

METHODS

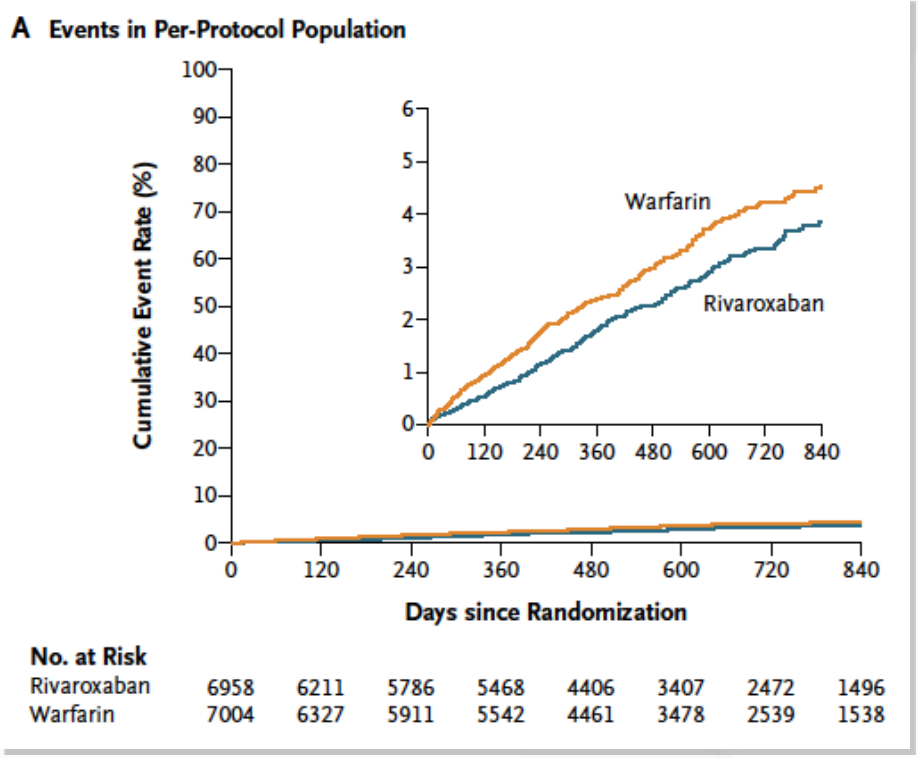
In a double-blind trial, we randomly assigned 14,264 patients with nonvalvular atrial fibrillation who were at increased risk for stroke to receive either rivaroxaban (at a daily dose of 20 mg) or dose-adjusted warfarin. The per-protocol, as-treated primary analysis was designed to determine whether rivaroxaban was noninferior to warfarin for the primary end point of stroke or systemic embolism.

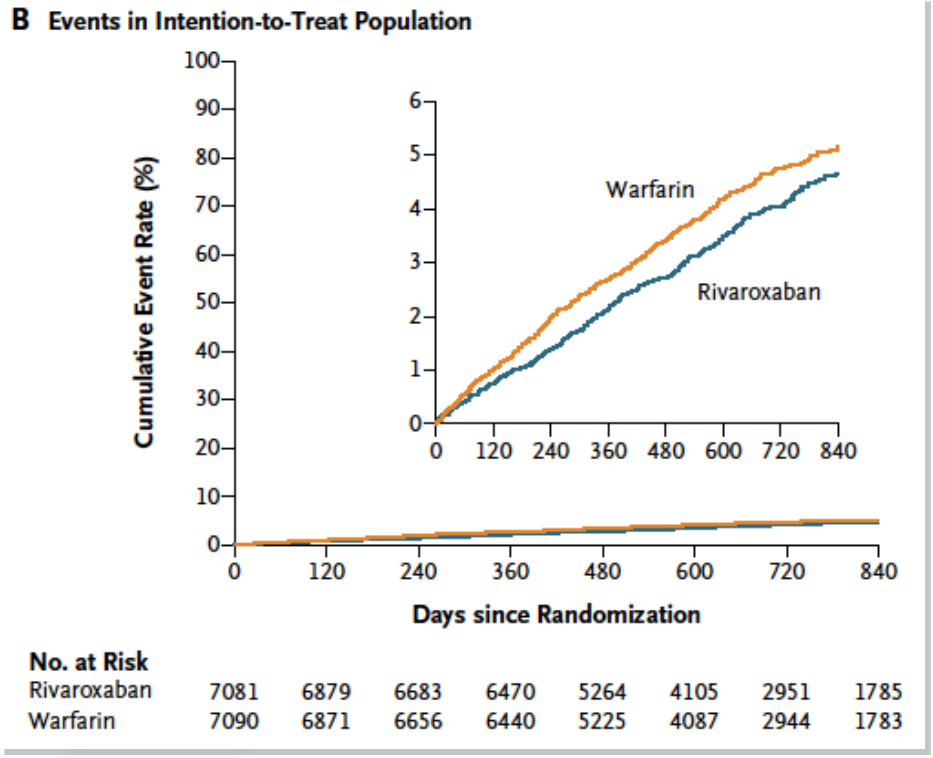
The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 SEPTEMBER 8, 2011 VOL. 365 NO. 10

Rivaroxaban versus Warfarin in Nonvalvular Atrial Fibrillation

N Engl J Med 2011;365:883-91





CONCLUSIONS

In patients with atrial fibrillation, rivaroxaban was noninferior to warfarin for the prevention of stroke or systemic embolism. There was no significant between-group difference in the risk of major bleeding, although intracranial and fatal bleeding occurred less frequently in the rivaroxaban group.

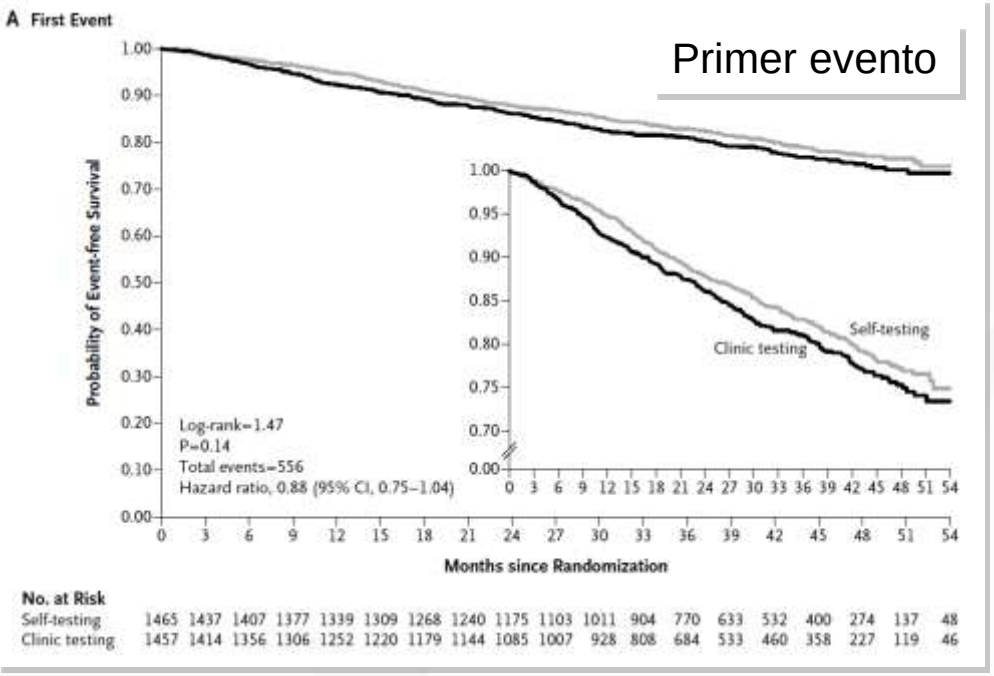
ORIGINAL ARTICLE

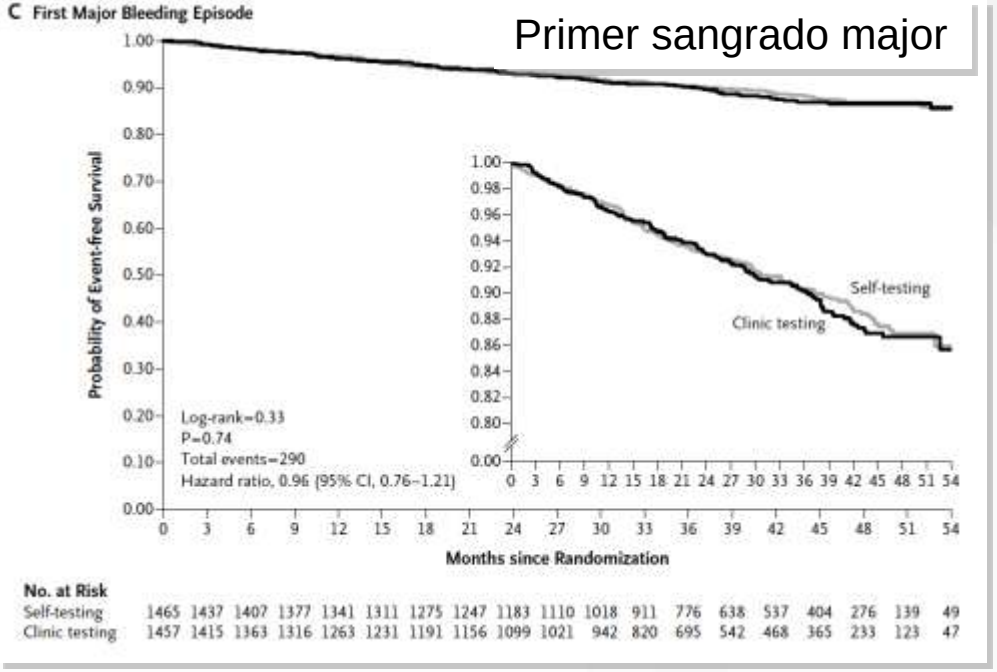
Effect of Home Testing of International Normalized Ratio on Clinical Events

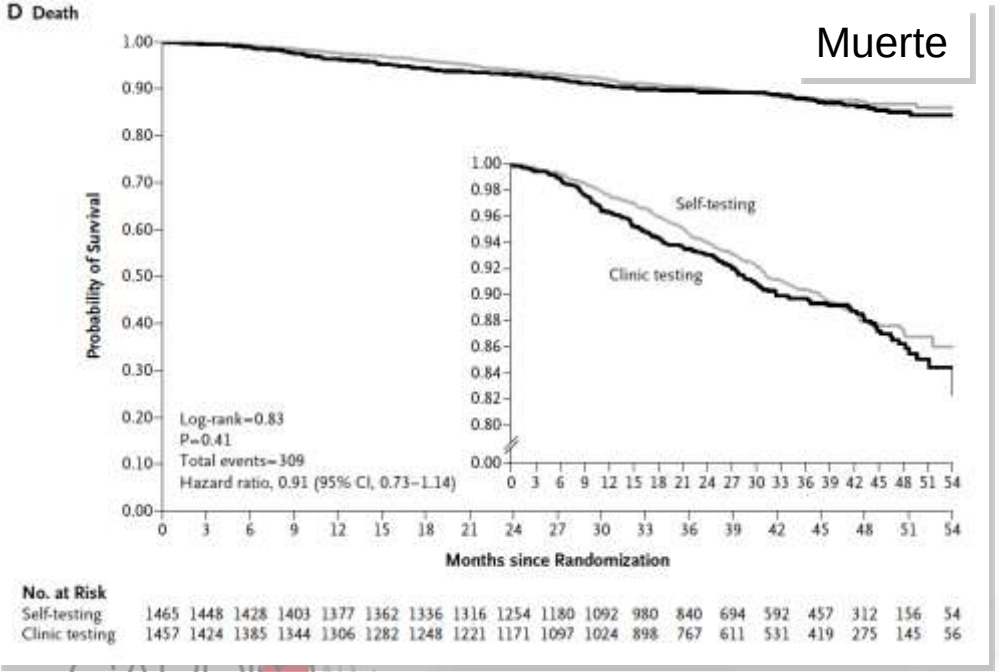
N Engl J Med 2010;363:1608-20

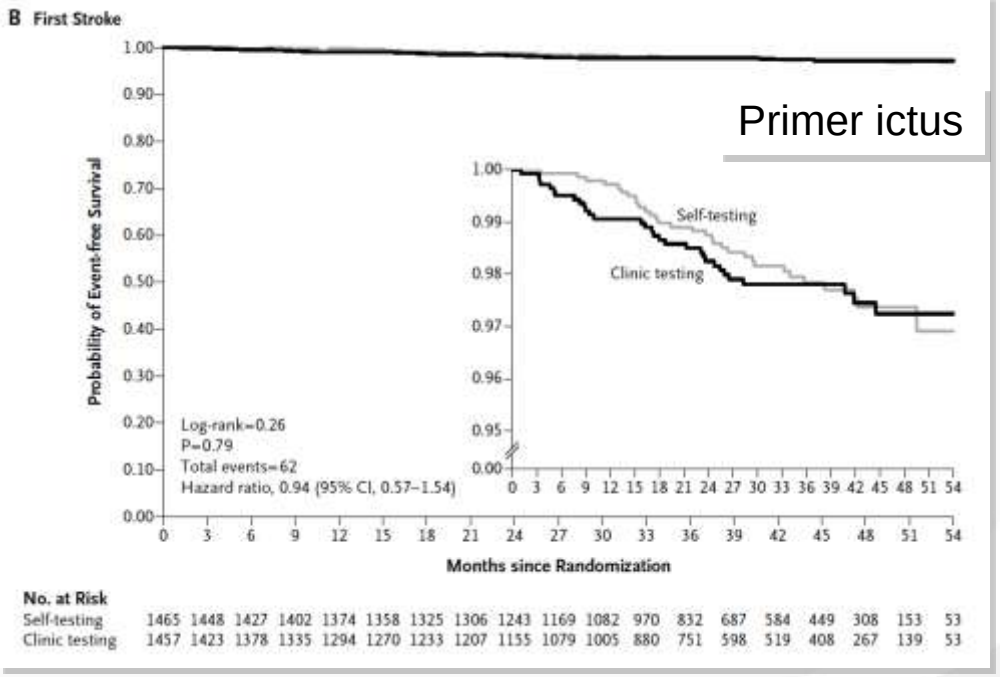
METHODS

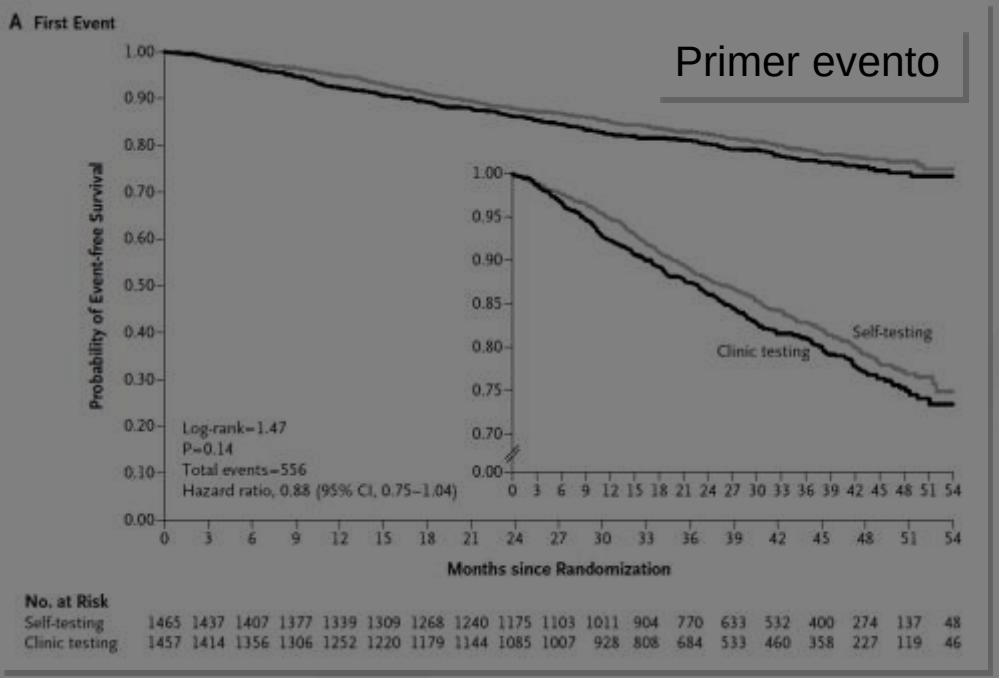
We randomly assigned 2922 patients who were taking warfarin because of mechanical heart valves or atrial fibrillation and who were competent in the use of point-of-care INR devices to either weekly self-testing at home or monthly high-quality testing in a clinic. The primary end point was the time to a first major event (stroke, major bleeding episode, or death).

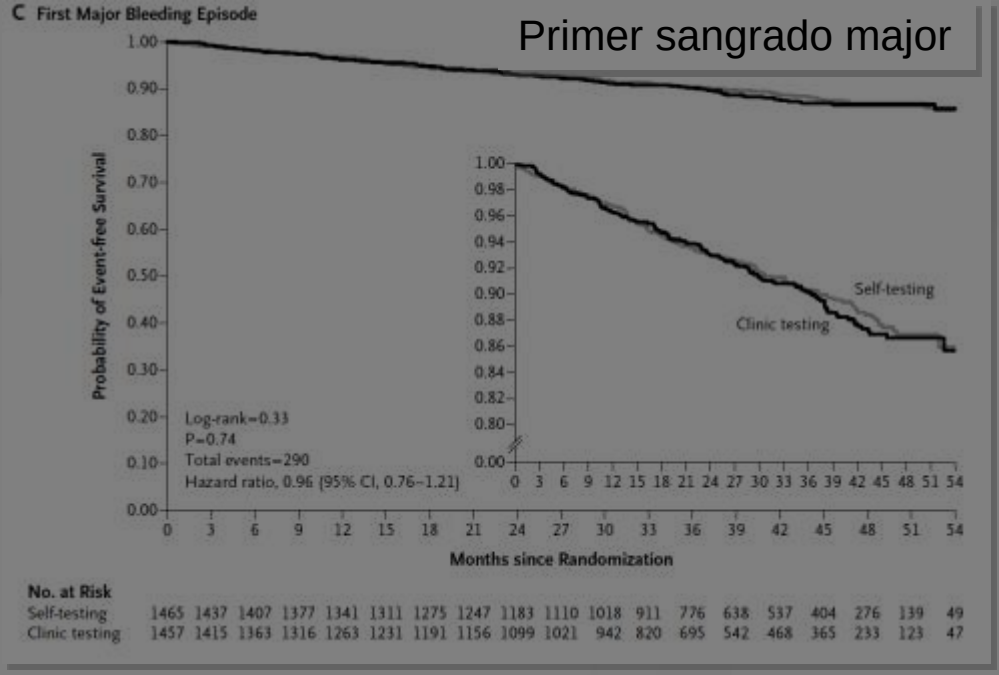

A First Event
Primer evento
Probability of Event-free Survival
Log-rank=1.47
P=0.14
Total events=556
Hazard ratio, 0.88 (95% CI, 0.75–1.04)
Self-testing
Clinic testing
Months since Randomization
No. at Risk
Self-testing 1465 1437 1407 1377 1339 1309 1268 1240 1175 1103 1011 904 770 633 532 400 274 137 48
Clinic testing 1457 1414 1356 1306 1252 1220 1179 1144 1085 1007 928 808 684 533 460 358 227 119 46

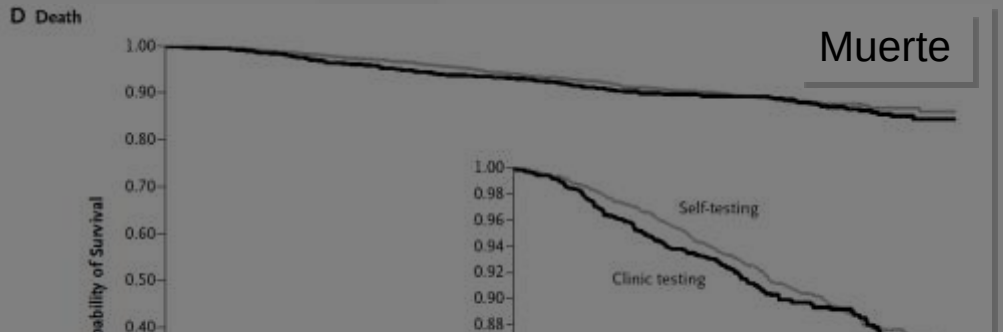

C First Major Bleeding Episode
Primer sangrado major
Probability of Event-free Survival
Log-rank=0.33
P=0.74
Total events=290
Hazard ratio, 0.96 (95% CI, 0.76–1.21)
Self-testing
Clinic testing
Months since Randomization
No. at Risk
Self-testing 1465 1437 1407 1377 1341 1311 1275 1247 1183 1110 1018 911 776 638 537 404 276 139 49
Clinic testing 1457 1415 1363 1316 1263 1231 1191 1156 1099 1021 942 820 695 542 468 365 233 123 47

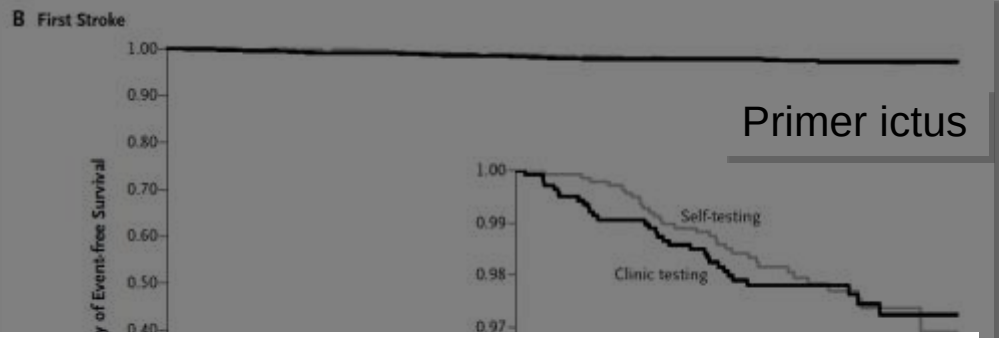

D Death
Muerte
Probability of Survival
Log-rank=0.83
P=0.41
Total events=309
Hazard ratio, 0.91 (95% CI, 0.73–1.14)
Self-testing
Clinic testing
Months since Randomization
No. at Risk
Self-testing 1465 1448 1428 1403 1377 1362 1336 1316 1254 1180 1092 980 840 694 592 457 312 156 54
Clinic testing 1457 1424 1385 1344 1306 1282 1248 1221 1171 1097 1024 898 767 611 531 419 275 145 56


B First Stroke
Primer ictus
Probability of Event-free Survival
Log-rank=0.26
P=0.79
Total events=62
Hazard ratio, 0.94 (95% CI, 0.57–1.54)
Self-testing
Clinic testing
Months since Randomization
No. at Risk
Self-testing 1465 1448 1427 1402 1374 1358 1325 1306 1243 1169 1082 970 832 687 584 449 308 153 53
Clinic testing 1457 1423 1378 1335 1294 1270 1233 1207 1155 1079 1005 880 751 598 519 408 267 139 53









CONCLUSIONS

As compared with monthly high-quality clinic testing, weekly self-testing did not delay the time to a first stroke, major bleeding episode, or death to the extent suggested by prior studies. These results do not support the superiority of self-testing over clinic testing in reducing the risk of stroke, major bleeding episode, and death among patients taking warfarin therapy.

Catheter Ablation for Atrial Fibrillation

Are Results Maintained at 5 Years of Follow-Up?

J Am Coll Cardiol 2011;57:160–6

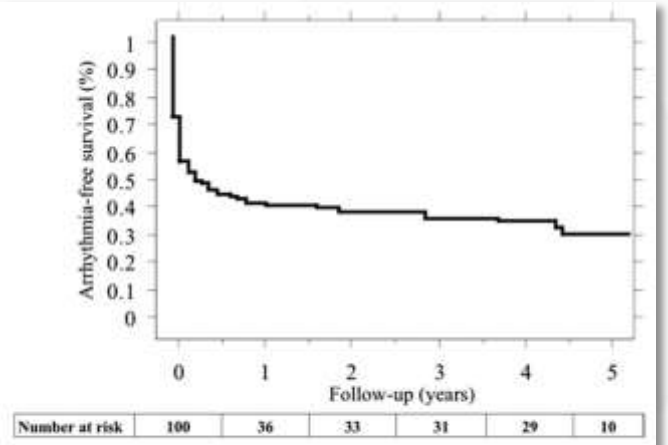


Figure 2 Single Procedure Success

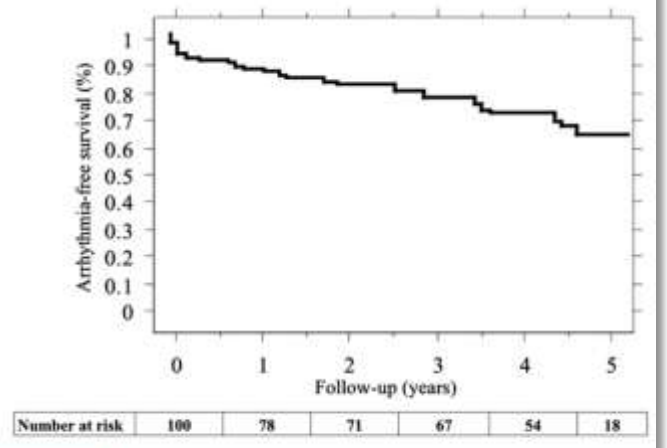
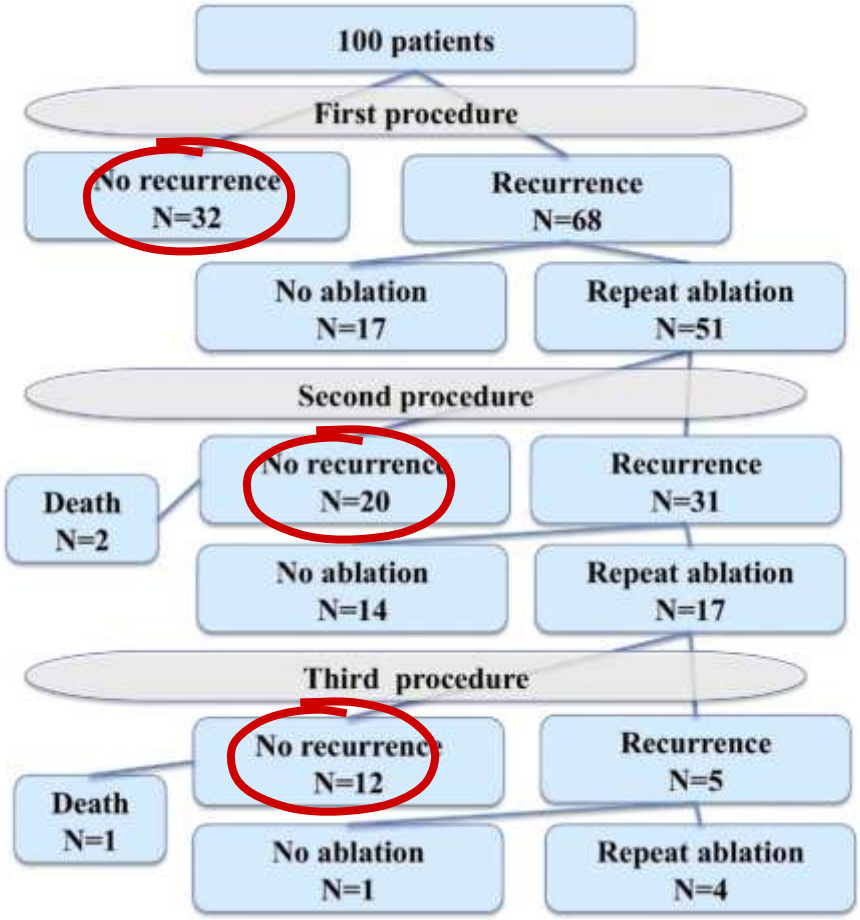


Figure 3 Multiple Procedure Success



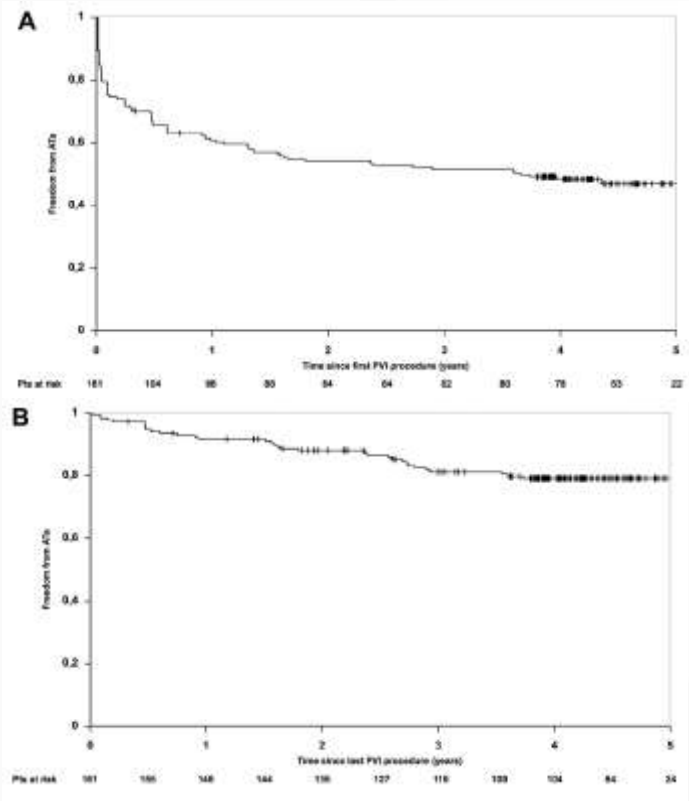
Conclusions In selected patients with AF, a catheter ablation strategy with repeat intervention as necessary provides acceptable long-term relief. Although most recurrences transpire over the first 6 to 12 months, a slow but steady decline in arrhythmia-free survival is noted thereafter.

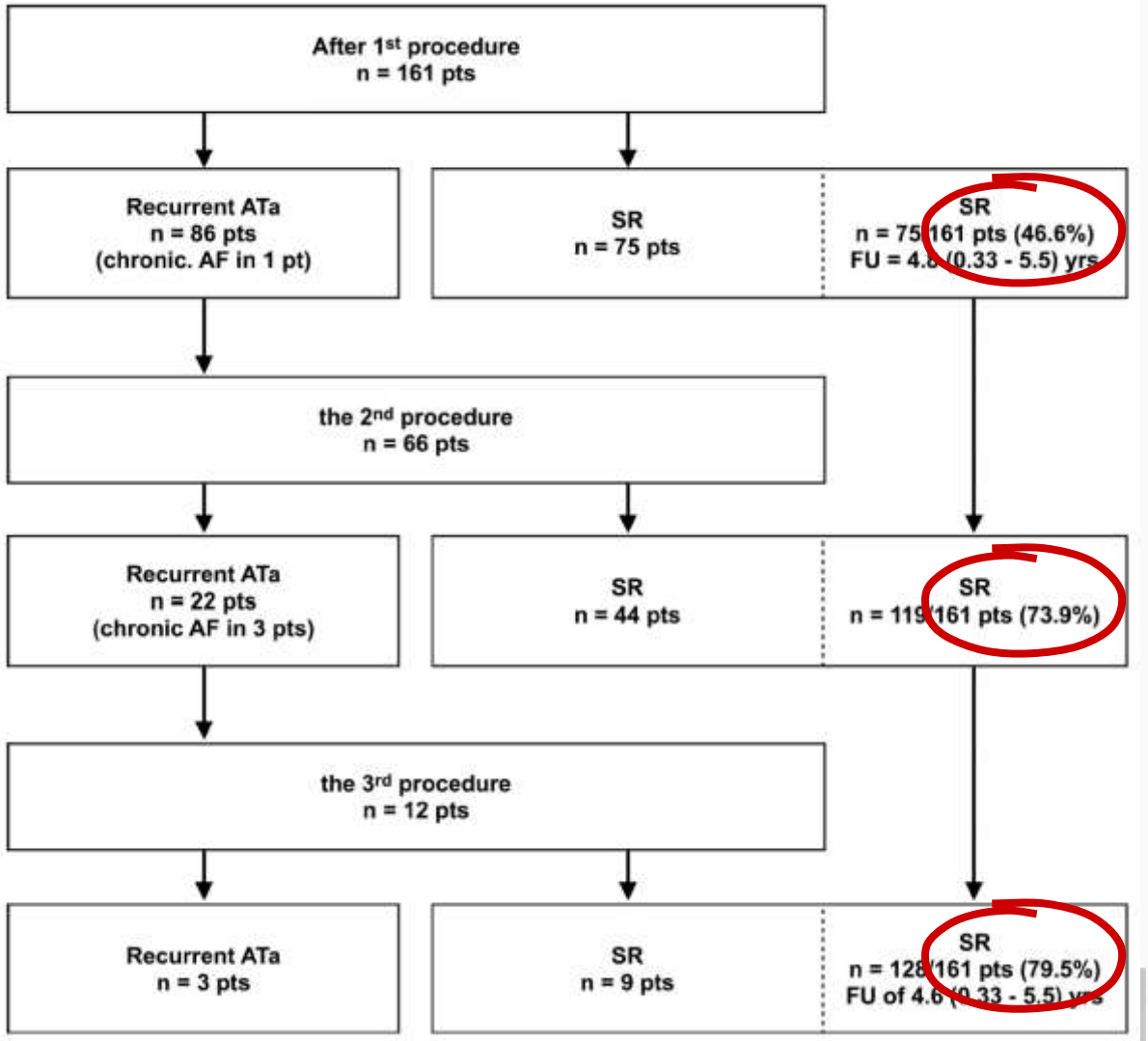
Long-Term Results of Catheter Ablation in Paroxysmal Atrial Fibrillation

Lessons From a 5-Year Follow-Up

Circulation. 2010;122:2368-2377

Longterm freedom from recurrence after the initial procedure (A) and after the last ablation procedure with a median of 1 (1 to 3) ablation procedure (B)





Conclusions

In the majority of patients with PAF and normal LV function, CPVI can restore stable SR. After successful CPVI, AF may recur at a steady rate during long-term follow-up.

Radiofrequency Catheter Ablation of Atrial Fibrillation: A Cause of Silent Thromboembolism?

Magnetic Resonance Imaging Assessment of Cerebral Thromboembolism in Patients Undergoing Ablation of Atrial Fibrillation

Circulation. 2010;122:1667-1673

	Patients With Periprocedural Silent Cerebral Ischemic Lesion	Patients Without Periprocedural Cerebral Ischemic Lesion	
No. of patients	33	198	
Spontaneous echo contrast	3	5	0.074
Mean ACT value during the procedure, s	269±28	282±32	0.014
Electric or pharmacological cardioversion during ablation	15 (45)	46 (23)	0.009
procedure, s			
Type of procedure		95 (48)	0.75	0.33	1.73	0.511
PV isolation	13 (39)	73 (37)				0.473
						0.226
						0.379
						0.336
						0.336
						0.009

RF LACA carries a low risk of symptomatic cerebral ischemia but is associated with a **substantial risk of silent cerebral ischemia** …

Independent **risk factors** are … the level of activated clotting time and, in particular, … **cardioversion to sinus rhythm during the procedure**

Incidence of Asymptomatic Intracranial Embolic Events After Pulmonary Vein Isolation

Comparison of Different Atrial Fibrillation Ablation Technologies in a Multicenter Study

J Am Coll Cardiol 2011;58:681–8

Table 3 Characteristics of New Embolic Events in All 3 Groups

	Externally Irrigated RF Group (n = 27)	Cryoballoon Group (n = 23)	PVAC (n = 24)
Patients with new embolic events	2 (7.4)	1 (4.3)	9 (37.5)
No. of embolic lesions/patient	1	1	2.7 ± 1.3
Size of embolic lesions, mm	6	4	6.0 (4.5–8.5)
Localization of embolic lesions	Frontal (right): 1, cerebellar (left): 1	Temporo-occipital (right): 1	Cerebellar: 10 parietal: 5 occipital: 4 frontal: 5 *(13 right, 11 left)

Conclusions The PVAC is associated with a significantly higher incidence of subclinical intracranial embolic events. Further study of the causes and significance of these emboli is required to determine the safety of the PVAC.

The NEW ENGLAND JOURNAL of MEDICINE

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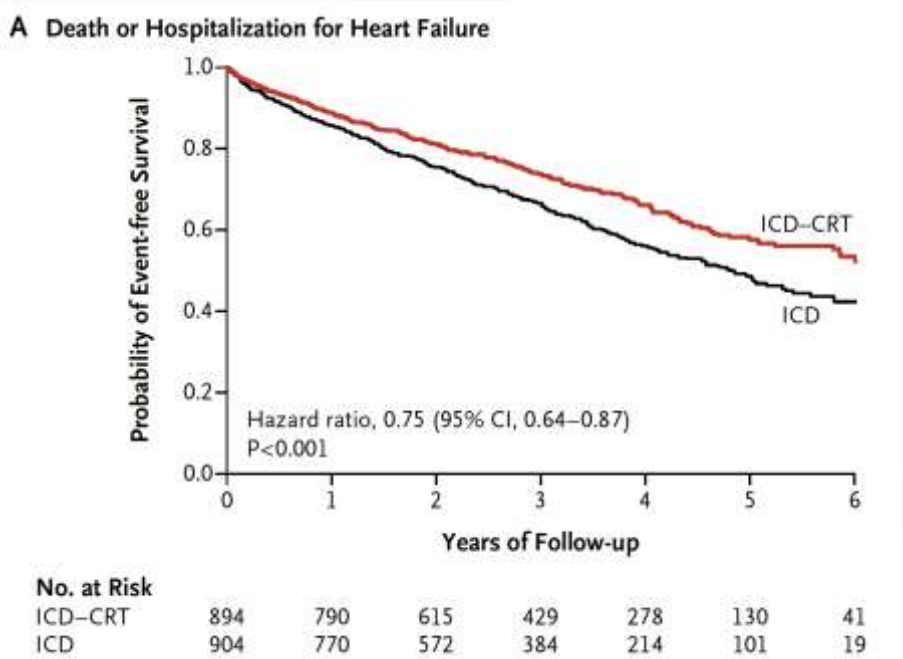
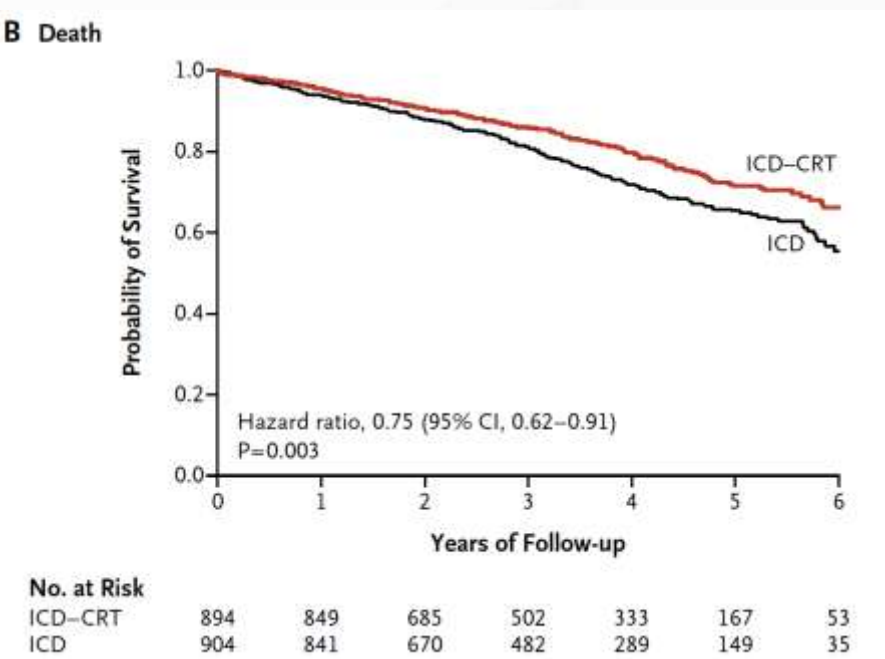
N Engl J Med 2010;363:2385-95

Cardiac-Resynchronization Therapy for Mild-to-Moderate Heart Failure

METHODS

We randomly assigned patients with New York Heart Association (NYHA) class II or III heart failure, a left ventricular ejection fraction of 30% or less, and an intrinsic QRS duration of 120 msec or more or a paced QRS duration of 200 msec or more to receive either an ICD alone or an ICD plus CRT. The primary outcome was death from any cause or hospitalization for heart failure.





Outcome	ICD (N=904)	ICD–CRT (N=894)	Hazard Ratio (95% CI)	P Value
	no. (%)			
All patients				
Primary outcome: death or hospitalization for heart failure	364 (40.3)	297 (33.2)	0.75 (0.64–0.87)	<0.001
Secondary outcomes				
Death from any cause	236 (26.1)	186 (20.8)	0.75 (0.62–0.91)	0.003
Death from cardiovascular cause	162 (17.9)	130 (14.5)	0.76 (0.60–0.96)	0.02
Hospitalization for heart failure	236 (26.1)	174 (19.5)	0.68 (0.56–0.83)	<0.001

CONCLUSIONS

Among patients with NYHA class II or III heart failure, a wide QRS complex, and left ventricular systolic dysfunction, the addition of CRT to an ICD reduced rates of death and hospitalization for heart failure. This improvement was accompanied by more adverse events.

Cardiac Resynchronization Therapy Is More Effective in Women Than in Men

The MADIT-CRT (Multicenter Automatic Defibrillator Implantation Trial With Cardiac Resynchronization Therapy) Trial

J Am Coll Cardiol 2011;57:813–20

Relative Merits of Left Ventricular Dyssynchrony, Left Ventricular Lead Position, and Myocardial Scar to Predict Long-Term Survival of Ischemic Heart Failure Patients Undergoing Cardiac Resynchronization Therapy

Larger baseline LV dyssynchrony predicted **superior long-term survival**, whereas discordant LV lead position and myocardial scar predicted worse outcome

Circulation. 2011;123:70-78

Impaired Renal Function Is Associated With Echocardiographic Nonresponse and Poor Prognosis After Cardiac Resynchronization Therapy

J Am Coll Cardiol 2011;57:549–55

Predictors of Response to Cardiac Resynchronization Therapy in the Multicenter Automatic Defibrillator Implantation Trial With Cardiac Resynchronization Therapy (MADIT-CRT)

Circulation. 2011;124:1527-1536

Cardiac Resynchronization Therapy in Asymptomatic or Mildly Symptomatic Heart Failure Patients in Relation to Etiology

Results From the REVERSE (REsynchronization reVErses Remodeling in Systolic Left vEntricular Dysfunction) Study

… CRT reverses left ventricular remodeling with a **more extensive effect on nonischemic patients**.

J Am Coll Cardiol 2010;56:1826–31

Cardiac Resynchronization Therapy Reduces Left Atrial Volume and the Risk of Atrial Tachyarrhythmias in MADIT-CRT (Multicenter Automatic Defibrillator Implantation Trial with Cardiac Resynchronization Therapy)

J Am Coll Cardiol 2011;58:1682–9

Effectiveness of Cardiac Resynchronization Therapy by QRS Morphology in the Multicenter Automatic Defibrillator Implantation Trial–Cardiac Resynchronization Therapy (MADIT-CRT)

Circulation. 2011;123:1061-1072

… class I or II and ejection fraction 30% and **LBBB** derive substantial clinical benefit from CRT-D: a **reduction in heart failure progression and a reduction in the risk of ventricular tachyarrhythmias.** No clinical benefit was observed in patients with a non-LBBB QRS pattern

Cardiac resynchronization therapy in patients undergoing atrioventricular junction ablation for permanent atrial fibrillation: a randomized trial

European Heart Journal 2011; 32, 2420–2429

In patients undergoing **'Ablate and Pace'** therapy for severely symptomatic permanent atrial fibrillation, **CRT is superior to RV apical pacing** in reducing the clinical manifestations of HF

Long-Term Outcome After ICD and CRT Implantation and Influence of Remote Device Follow-Up
The ALTITUDE Survival Study

Circulation. 2010;122:2359-2367

Survival after **ICD and CRT-D** implantation in patients treated in naturalistic practice **compares favorably with** survival rates observed in **clinical trials**

Long-Term Complications Related to Biventricular Defibrillator Implantation
Rate of Surgical Revisions and Impact on Survival: Insights From the Italian ClinicalService Database

Circulation. 2011;123:2526-2535

… **device-related events are more frequent in CRT-D** than in single- or dual-chamber defibrillators … a worse clinical outcome is not associated with these events

Familial Evaluation in Arrhythmogenic Right Ventricular Cardiomyopathy
Impact of Genetics and Revised Task Force Criteria

Circulation. 2011;123:2701-2709

Arrhythmogenic Right Ventricular Dysplasia/Cardiomyopathy
Pathogenic Desmosome Mutations in Index-Patients Predict Outcome of Family Screening: Dutch Arrhythmogenic Right Ventricular Dysplasia/Cardiomyopathy Genotype-Phenotype Follow-Up Study

Circulation. 2011;123:2690-2700

Prognostic predictors in arrhythmogenic right ventricular cardiomyopathy: results from a 10-year registry

European Heart Journal 2011; 32:1105–1113

Right ventricular mechanical dispersion is related to malignant arrhythmias: a study of patients with arrhythmogenic right ventricular cardiomyopathy and subclinical right ventricular dysfunction

European Heart Journal 2011; 32:1089–1096

Long-Term Follow-Up of Patients With Short QT Syndrome

J Am Coll Cardiol 2011;58:587–95

Risk stratification in individuals with the Brugada type 1 ECG pattern without previous cardiac arrest: usefulness of a combined clinical and electrophysiologic approach

European Heart Journal 2011; 32:169–176

The value of a family history of sudden death in patients with diagnostic type I Brugada ECG pattern

European Heart Journal 2011; 32:2153–2160

Manifest disease, risk factors for sudden cardiac death, and cardiac events in a large nationwide cohort of predictively tested hypertrophic cardiomyopathy mutation carriers: determining the best cardiological screening strategy

European Heart Journal 2011; 32:1161–1170

Prevalence and clinical correlates of QT prolongation in patients with hypertrophic cardiomyopathy

European Heart Journal 2011; 32:1114–1120

Sudden death in hypertrophic cardiomyopathy: old risk factors re-assessed in a new model of maximalized follow-up

European Heart Journal 2010; 31:3084–3093

Incidence and Prognostic Value of Early Repolarization Pattern in the 12-Lead Electrocardiogram

Circulation. 2011;123:2931-2937

Early repolarization pattern is associated with an elevated risk of unexpected death and a decreased risk of cardiac and all-cause death. **Specific early repolarization pattern morphologies and location are associated with an adverse prognosis**.

Early Repolarization
Electrocardiographic Phenotypes Associated With Favorable Long-Term Outcome

Circulation. 2011;123:2666-2673

ST-segment morphology variants associated with ER separates subjects with and without an increased risk of arrhythmic death in middle-aged subjects. **Rapidly ascending ST segments after the J-point, the dominant ST pattern in healthy athletes, seems to be a benign variant of ER**

Prevalence of J-Point Elevation in Sudden Arrhythmic Death Syndrome Families

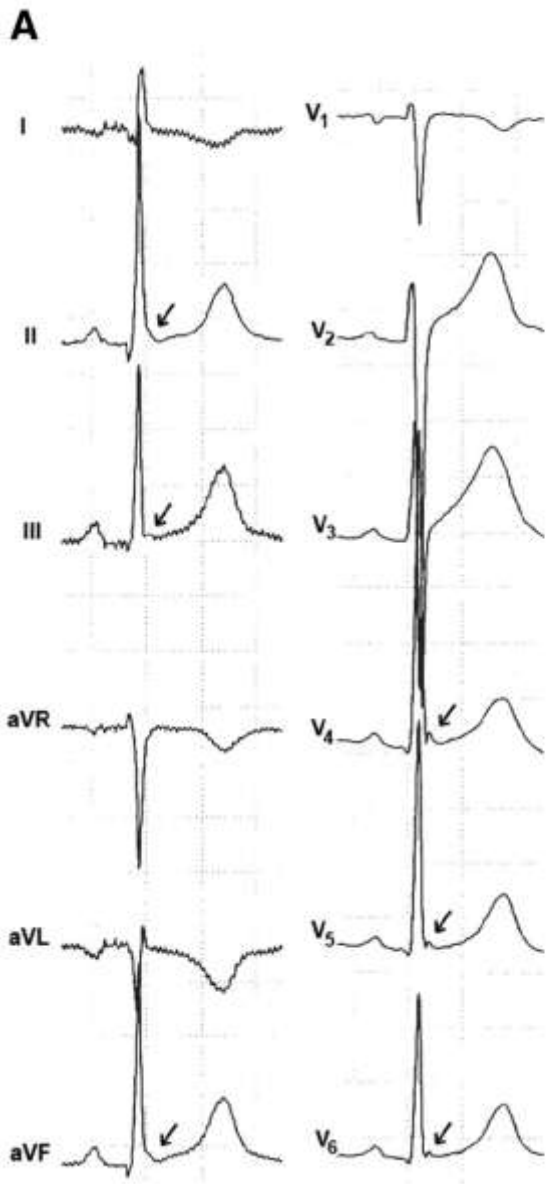
J Am Coll Cardiol 2011;58:286–90

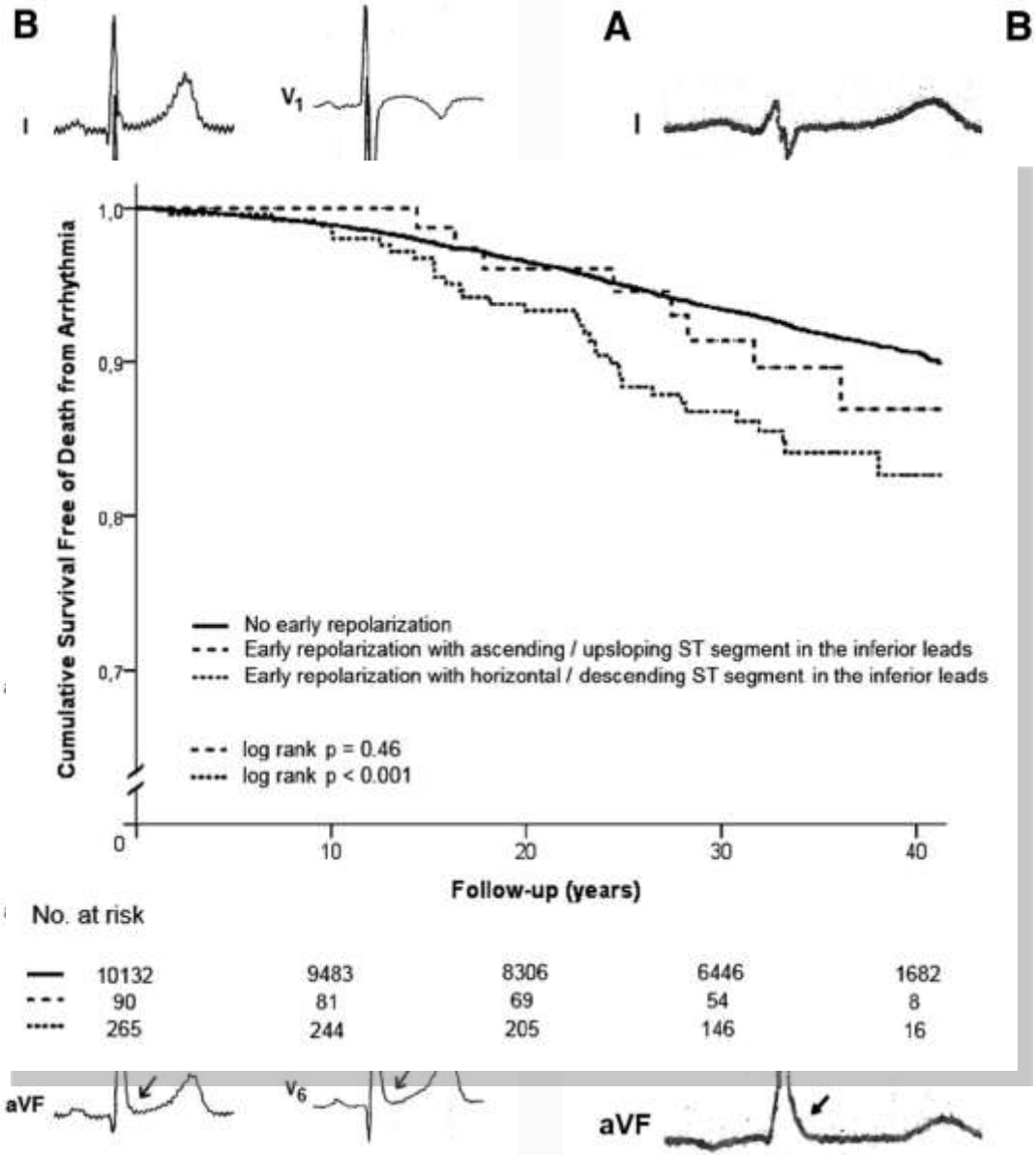
J-point elevation is more prevalent in the relatives of SADS probands than in controls. This indicates that **early repolarization is an important potentially inheritable pro-arrhythmic trait or marker of pro-arrhythmia in SADS**

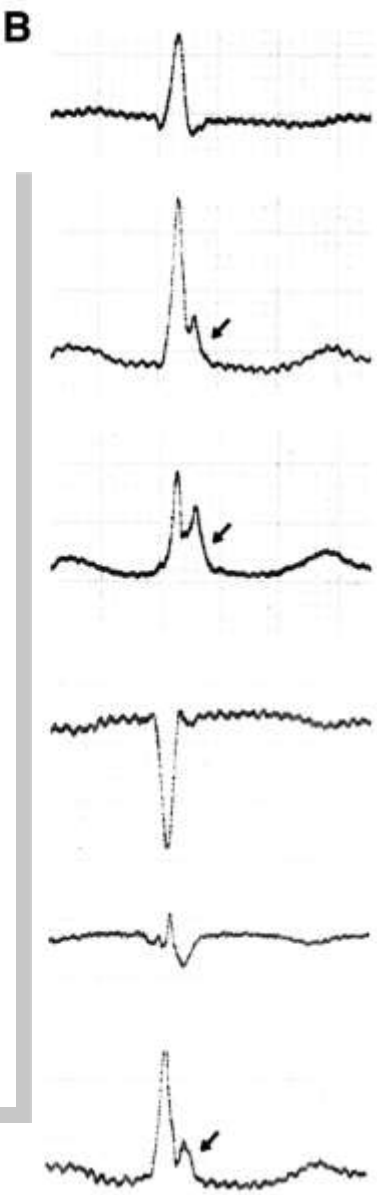
Early Repolarization

Electrocardiographic Phenotypes Associated With Favorable Long-Term Outcome

Circulation. 2011;123:2666-2673



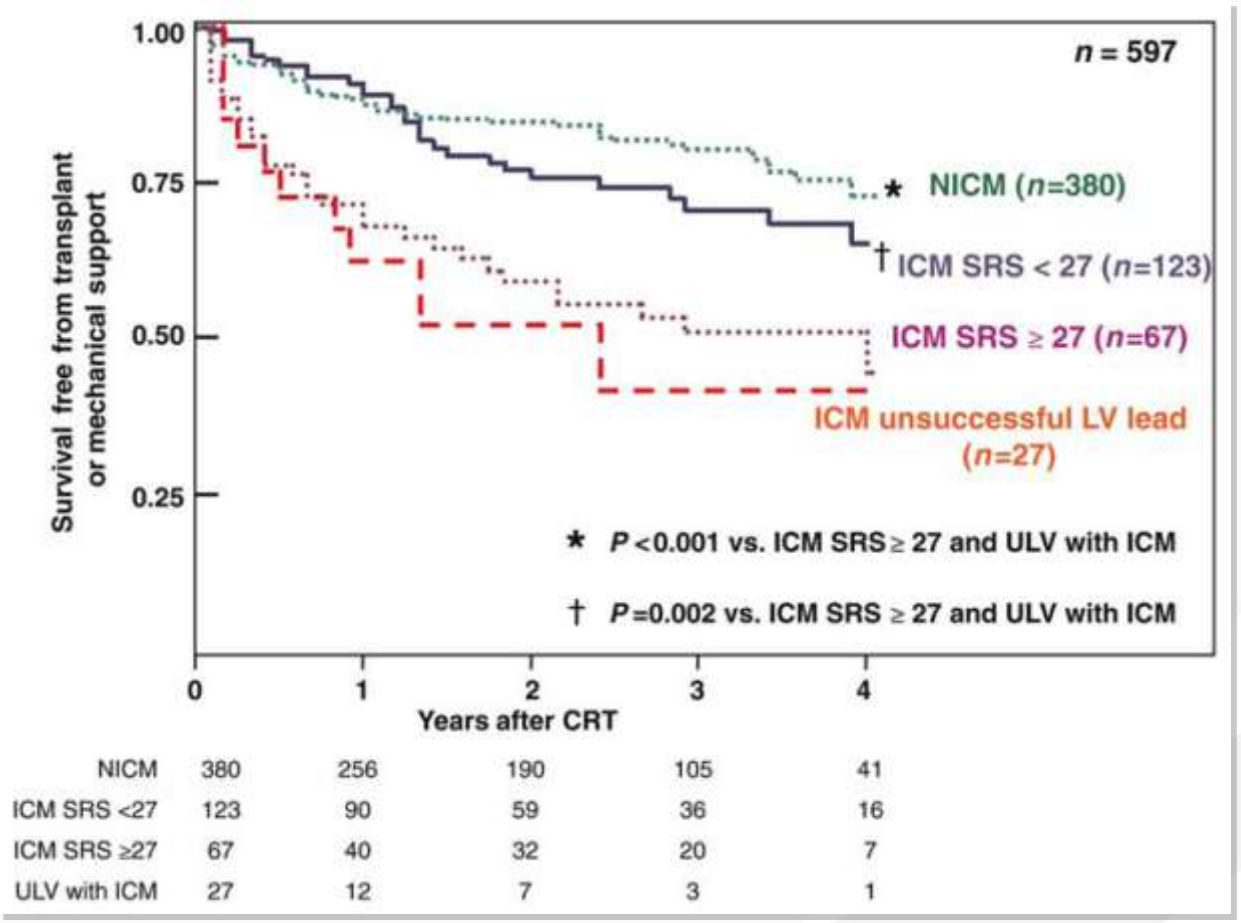




Impact of scar burden by single-photon emission computed tomography myocardial perfusion imaging on patient outcomes following cardiac resynchronization therapy

European Heart Journal 2011; 32:93–103

Conclusion Extensive scar burden in ICM patients unfavourably affected clinical and LV functional outcomes after CRT, regardless of baseline dyssynchrony measures. Patients with ICM and lower scar burden had significantly better outcomes, similar to NICM patients.



NICM	380	256	190	105	41
ICM SRS <27	123	90	59	36	16
ICM SRS ≥27	67	40	32	20	7
ULV with ICM	27	12	7	3	1

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Myocardial Fibrosis Predicts Appropriate Device Therapy in Patients With Implantable Cardioverter-Defibrillators for Primary Prevention of Sudden Cardiac Death

J Am Coll Cardiol 2011;57:821–8

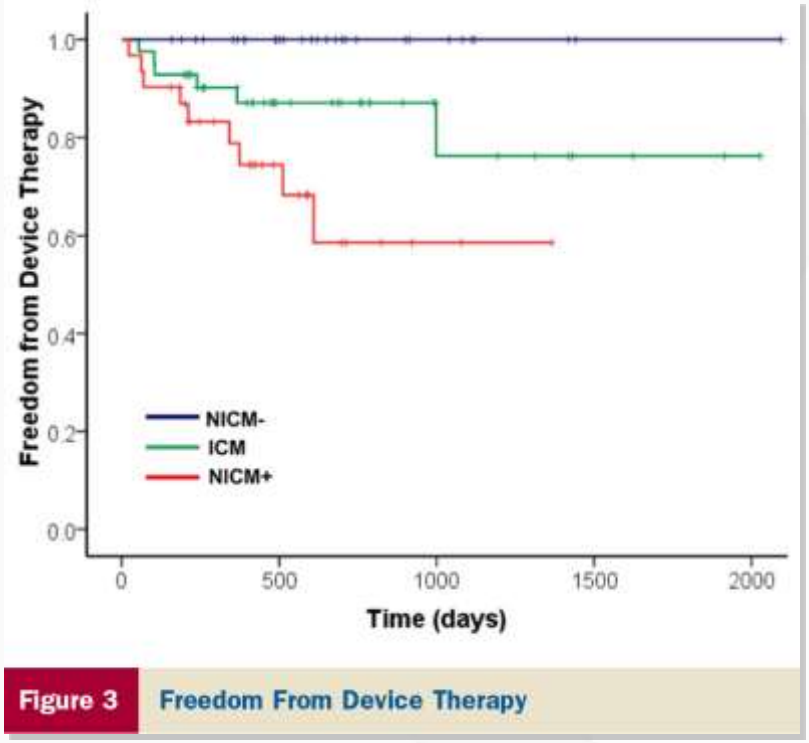


Figure 3 Freedom From Device Therapy

composite end point of appropriate device therapy, all-cause mortality, and cardiac transplantation

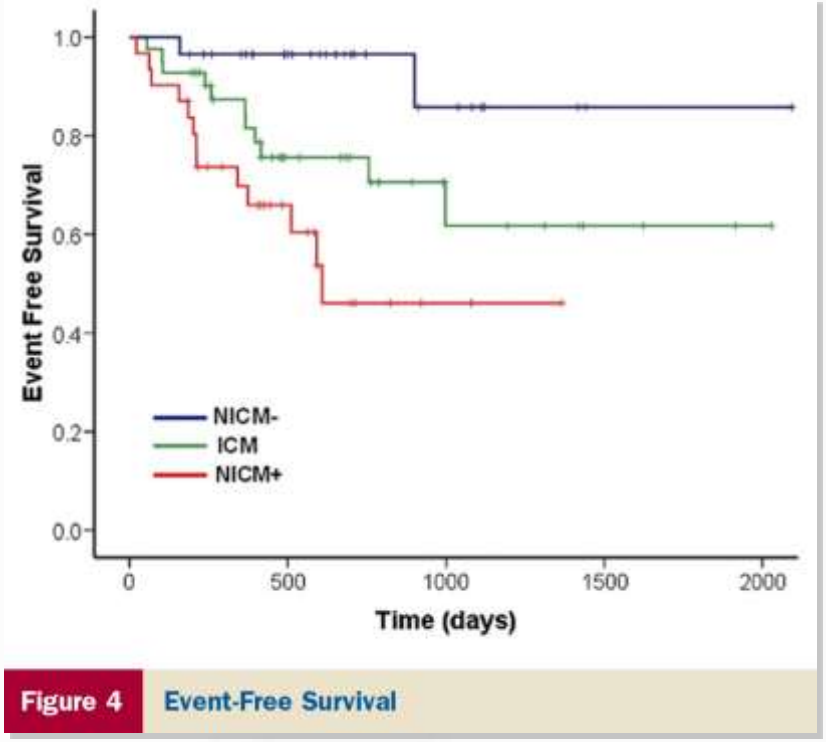


Figure 4 Event-Free Survival

… a strong association between myocardial LGE and appropriate ICD therapy, … ventricular scar is an important arrhythmic substrate …

Patients without LGE had no appropriate device therapies, suggesting it may be possible to identify a low-risk patient subgroup

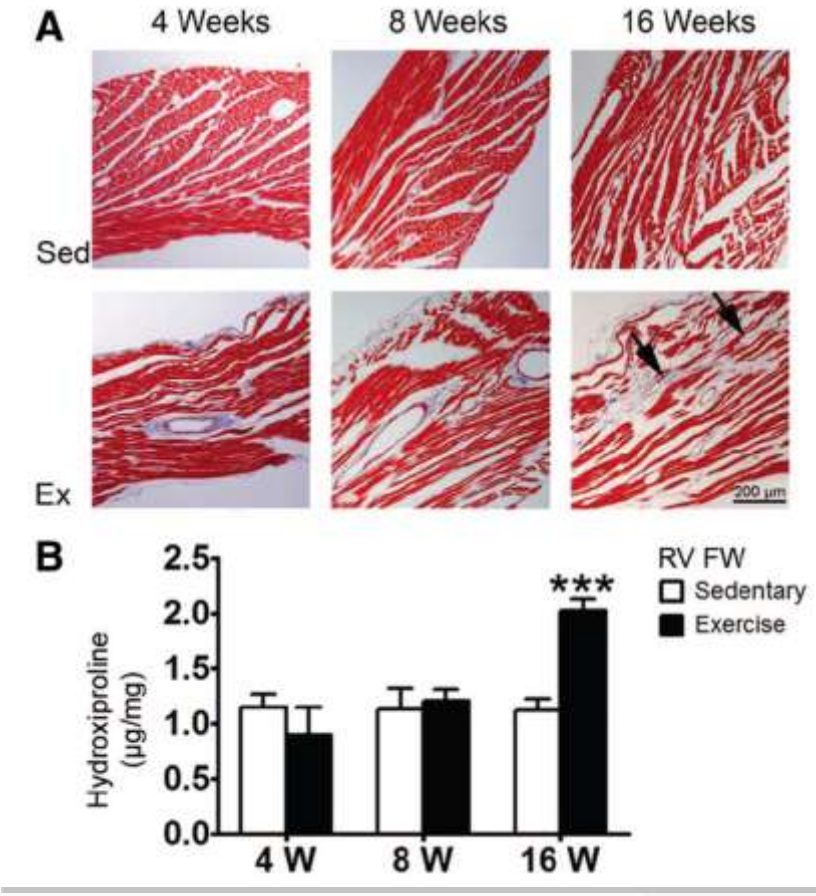
CARDIO ACTUALIDAD 2011

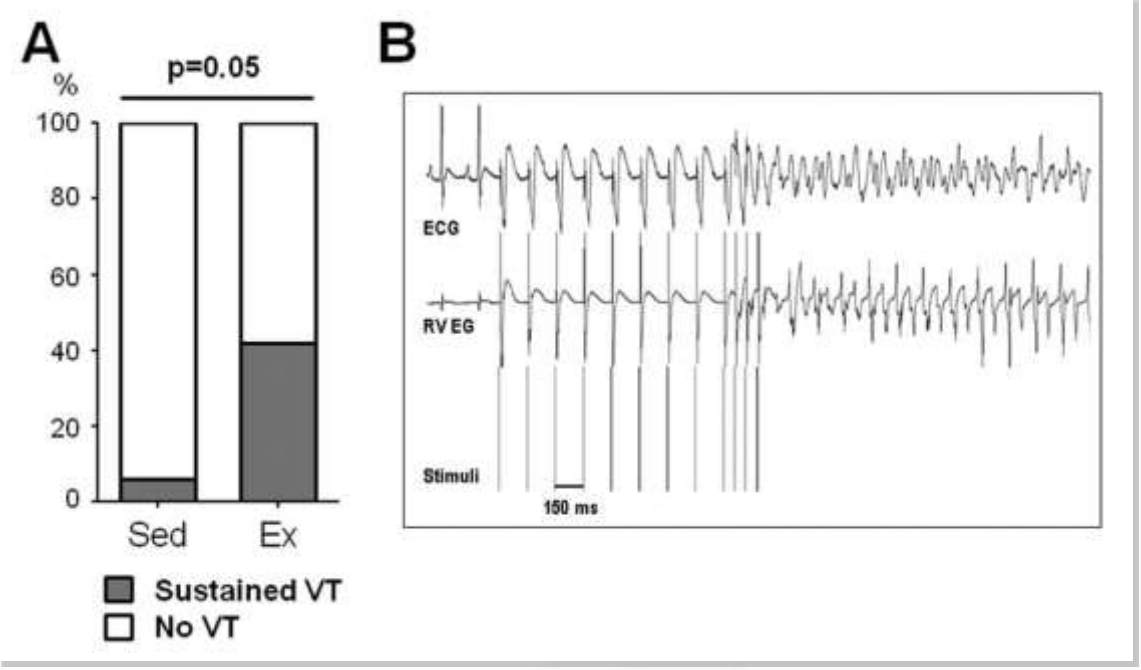
Arritmias cardiacas

Cardiac Arrhythmogenic Remodeling in a Rat Model of Long-Term Intensive Exercise Training

Begoña Benito, MD*; Gemma Gay-Jordi, PhD*; Anna Serrano-Mollar, PhD; Eduard Guasch, MD; Yanfen Shi, MD; Jean-Claude Tardif, MD; Josep Brugada, MD, PhD; Stanley Nattel, MD†; Lluis Mont, MD, PhD†

Circulation. 2011;123:13-22





In this animal model, we documented **cardiac fibrosis after long-term intensive exercise training**, **togethe rwith changes in ventricular function and increased arrhythmia inducibility**

Chamber-Specific Myocardial Fibrosis After Intensive Exercise Training

Reversibility

Noninvasive Identification of Ventricular Tachycardia-Related Conducting Channels Using Contrast-Enhanced Magnetic Resonance Imaging in Patients With Chronic Myocardial Infarction

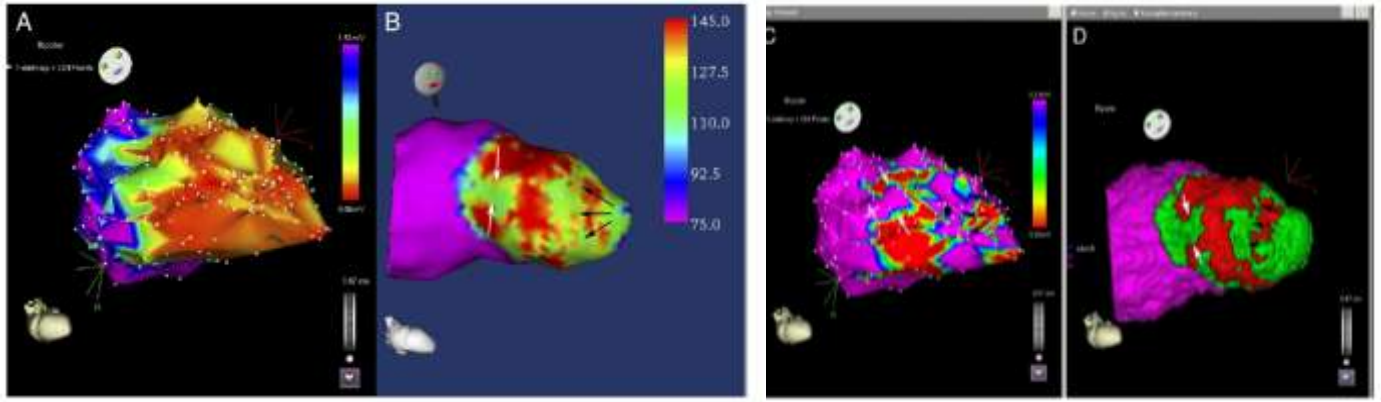
Comparison of Signal Intensity Scar Mapping and Endocardial Voltage Mapping

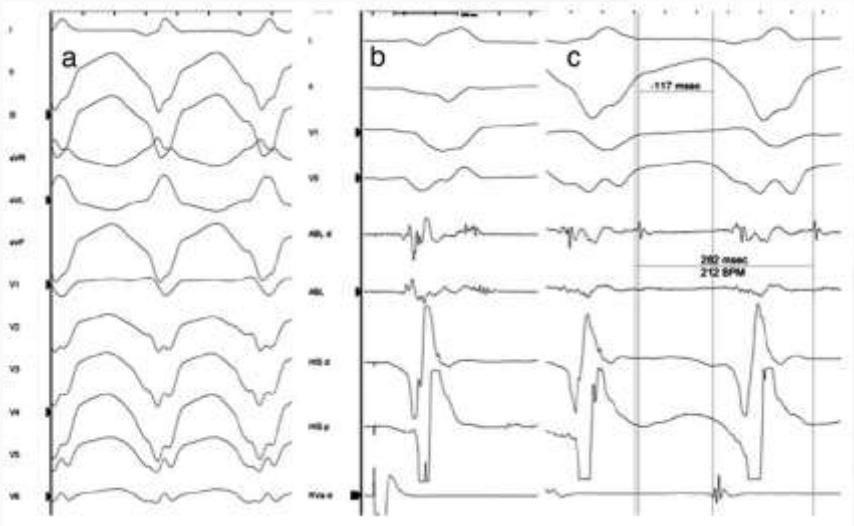
Esther Perez-David, MD,* Ángel Arenal, MD,* José L. Rubio-Guivernau, PHD,†
Roberto del Castillo, MD,* Leonardo Atea, MD,* Elena Arbelo, MD, PHD,‡
Eduardo Caballero, MD, PHD,‡ Verónica Celorrio, MD,* Tomas Datino, MD, PHD,*
Esteban Gonzalez-Torrecilla, MD, PHD,* Felipe Atienza, MD,* Maria J. Ledesma-Carbayo, PHD,†
Javier Bermejo, MD,* Alfonso Medina, MD, PHD,‡ Francisco Fernández-Avilés, MD, PHD*

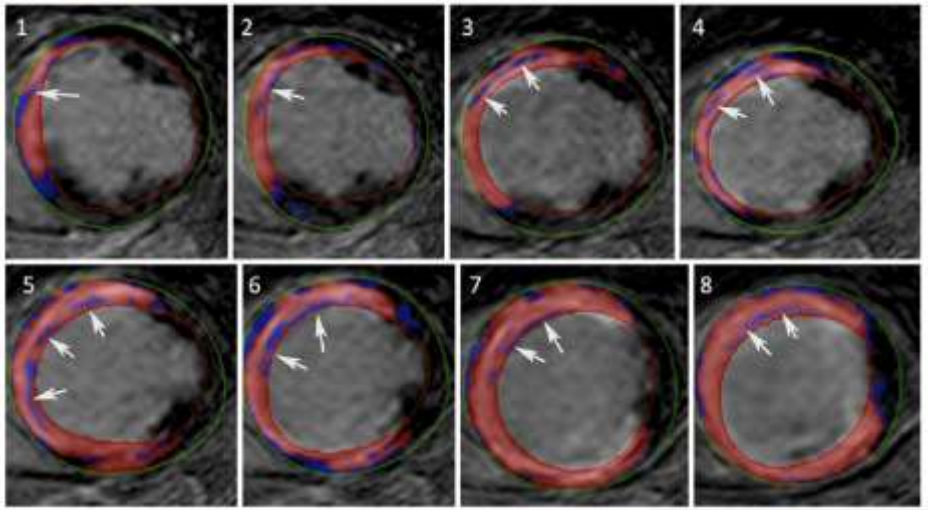
J Am Coll Cardiol 2011;57:184–94

SMVT substrate can be identified by ceMRI scar heterogeneity analysis.

This information could help identify patients at risk of VT and facilitate VT ablation.







FA los fármacos antiarrítmicos existen

dronedarona acota su perfil de uso

vernakalant eficaz en la CV de FA reciente

el control de frecuencia no tan estricto es válido

no supone más remodelado

grandísimos avances en la ACO

dabigatrán al alcance de la mano

rivroxaban y apixaban

la ablación se consolida en sus indicaciones

resultados predecibles en la FA paroxística

se trabaja en buscar nuevas herramientas

TRC es una terapia muy poderosa

definimos los grupos de respondedores

BRI / MCDNI / Asincronía / mujeres

cuanto antes mejor si bien indicada

Miocardiopatías y MS seguimos aprendiendo

definimos los grupos de riesgo y elección de terapia

Fibrosis y cicatrices el enemigo a conocer

el enemigo a abatir

CARDIO ACTUALIDAD 2011

Arritmias cardiacas