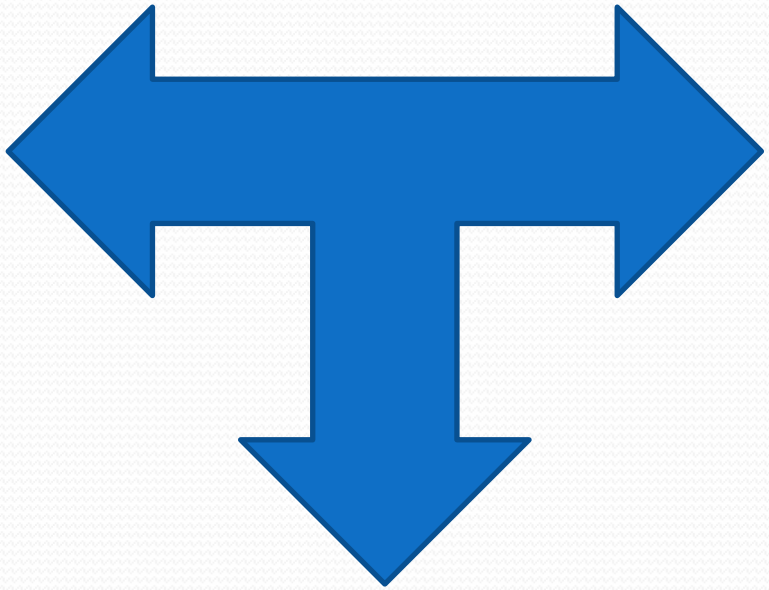
Ablasyon Sonrası Medikal Tedavinin Düzenlenmesi

Dr. Kerem Can Yılmaz
Bursa Özel Aritmi Osmangazi Hastanesi
Antalya, Kasım 2021

İŞLEM SIRASINDA ANTİKOAGÜLASYON



İŞLEM SONRASINDA ANTİKOAGÜLASYON

İŞLEM SONRASINDA ANTİARİTMİK TEDAVİ

İşlem Sırasında Antikoagülasyon

Uninterrupted rivaroxaban vs. uninterrupted vitamin K antagonists for catheter ablation in non-valvular atrial fibrillation

Riccardo Cappato[1,2], Francis E. Marchlinski[3], Stefan H. Hohnloser[4], Gerald V. Naccarelli[5], Jim Xiang[6], David J. Wilber[7], Chang-Sheng Ma[8], Susanne Hess[9], Darryl S. Wells[10], George Juang[11], Johan Vijgen[12], Burkhard J. Hügl[13], Richard Balasubramaniam[14], Christian De Chillou[15], D. Wyn Davies[16], L. Eugene Fields[17], and Andrea Natale[18]*, on behalf of the VENTURE-AF Investigators

Table 2 The practical management of activated clotting time on the day of catheter ablation in the per protocol population

	Rivaroxaban	VKA	Total	*P* Value
N	114	107	221	
Patients heparinized, *n* (%)	114 (100)	107 (100)	221 (100)	
N	113	107	221	
Total units of heparin, mean (SD)	13 871 (6516)	10 964 (5912)	12 457 (6383)	<0.001
N	111	106	218	
ACT level, mean (SD)	302 (49)	332 (58)	317 (55)	<0.001
N	114	107	221	
Protamine for heparin reversal, *n* (%)	32 (28.1)	27 (25.2)	59 (26.7)	0.634

332 s; $P < 0.001$) in rivaroxaban and VKA arms, respectively. The incidence of major bleeding was low (0.4%; 1 major bleeding event). Similarly, thromboembolic events were low (0.8%; 1 ischemic stroke and 1 vascular death). All events occurred in the VKA arm and all after CA. The number of any adjudicated events (26 vs. 25), any bleeding events (21 vs. 18), and any other procedure-attributable events (5 vs. 5) were similar.

European Heart Journal (2015) 36, 1805–1811

Regional differences in patient characteristics and outcomes during uninterrupted anticoagulation with dabigatran versus warfarin in catheter ablation of atrial fibrillation: the RE-CIRCUIT study

Stefan H. Hohnloser[1] · Hugh Calkins[2] · Stephan Willems[3] · Atul Verma[4] · Richard Schilling[5] · Ken Okumura[6] · Matias Nordaby[7] · Eva Kleine[8] · Branislav Biss[9] · Edward P. Gerstenfeld[10] · RE-CIRCUIT® investigators

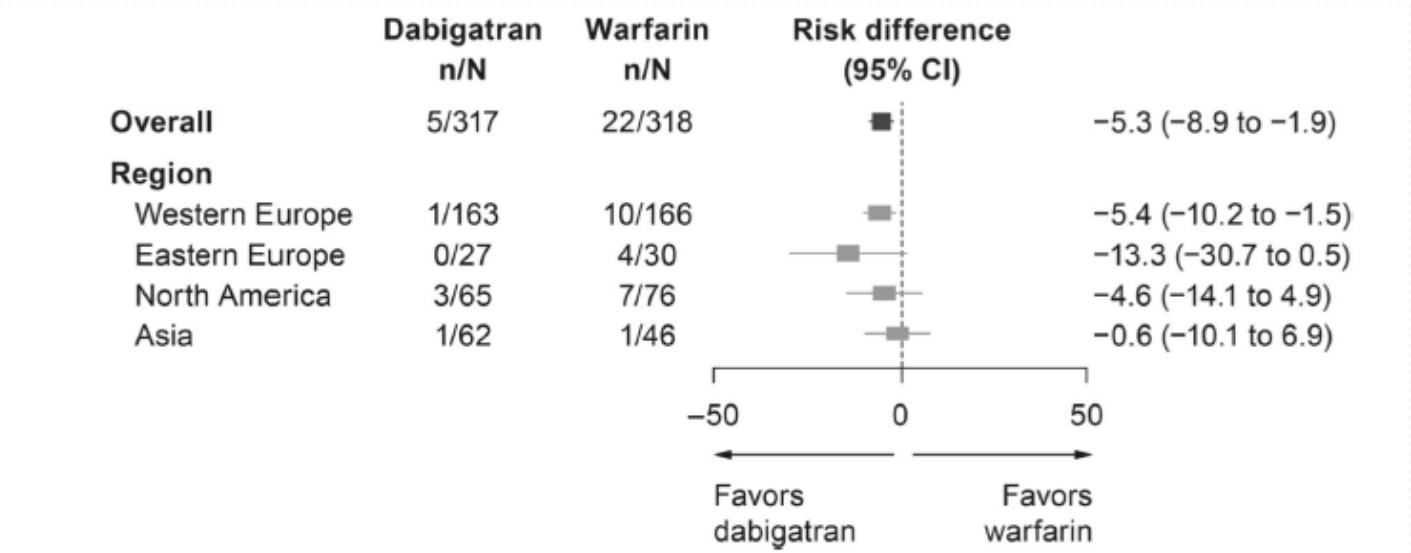


Fig. 1 ISTH major bleeding events—regional distribution. *CI* confidence interval, *ISTH* International Society on Thrombosis and Haemostasis

the preferred energy source. The major outcome measure, incidence of MBEs during and up to 2 months after the procedure, was consistently lower with uninterrupted dabigatran versus warfarin, irrespective of regions and their procedural differences, and different ablation techniques utilized.

Conclusions This analysis shows that the benefits of dabigatran over a vitamin K antagonist in patients undergoing atrial fibrillation ablation are consistent across all geographic regions studied.

Journal of Interventional Cardiac Electrophysiology (2019) 55:145–152

Periprocedural anticoagulation in the uninterrupted edoxaban vs. vitamin K antagonists for ablation of atrial fibrillation (ELIMINATE-AF) trial

Stefan H. Hohnloser[1]*, A. John Camm[2], Riccardo Cappato[3], Hans-Christoph Diener[4], Hein Heidbüchel[5], Lluís Mont[6], Carlos A. Morillo[7], Hans-Joachim Lanz[8], Heiko Rauer[8], Paul-Egbert Reimitz[9], Rüdiger Smolnik[8], and Josef Kautzner[10]

Table 5 Major or CRNM bleeding events (ISTH) occurring from start of ablation up to 48 h after the end of the ablation procedure

	Total ($N = 553$), *n* (%)	Edoxaban ($N = 375$), *n* (%)	VKA ($N = 178$), *n* (%)
Major or CRNM bleeding (ISTH)	24 (4.3)	17 (4.5)	7 (3.9)
Heparin dose < median of treatment arm[a]		6	4
Heparin dose ≥ median of treatment arm[a]		11	3
Major bleeding (ISTH)	10 (1.8)	7 (1.9)	3 (1.7)
Heparin dose < median of treatment arm[a]		2	1
Heparin dose ≥ median of treatment arm[a]		5	2

CRNM, clinically relevant non-major bleeding; ISTH, International Society on Thrombosis and Haemostasis.
[a]Median heparin dose was 13 000 IU in edoxaban arm and 10 225 IU in VKA arm.

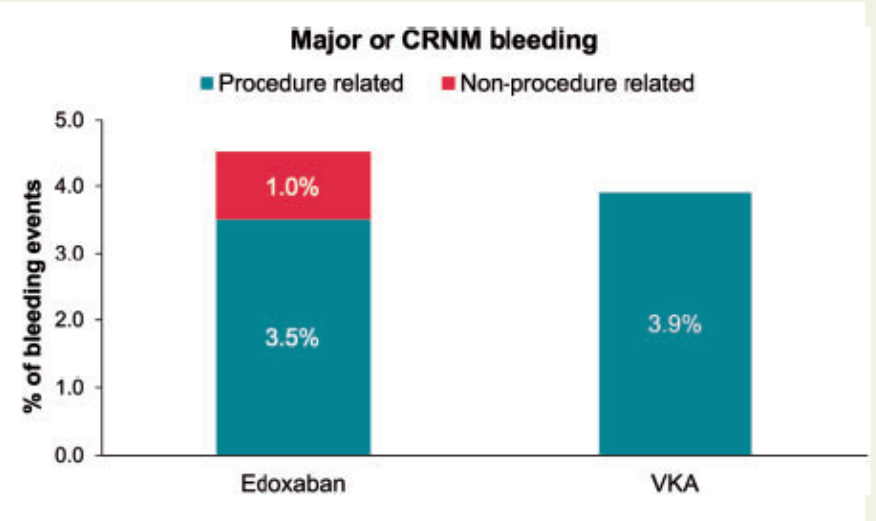


Figure 1 Procedure- and non-procedure-related major or CRNM bleeding events (ISTH) occurring from start of ablation up to 48 h after the end of the ablation procedure. CRNM, clinically relevant non-major; ISTH, International Society on Thrombosis and Haemostasis; VKA, vitamin K antagonist.

- Despite the higher UFH dose, the mean ACT was lower in patients treated with edoxaban.
- The number of patients with procedure-related major/clinically relevant non-major bleeding did not differ between the treatment arms despite higher doses of UFH used in combination with edoxaban.

Europace (2021) 23, 65–72

Uninterrupted Direct Oral Anticoagulants Without a Change in Regimen for Catheter Ablation for Atrial Fibrillation Is an Acceptable Protocol

Tsukasa Oshima, MD, PhD; Katsuhito Fujiu, MD, PhD; Hiroshi Matsunaga, MD, PhD; Jun Matsuda, MD, PhD; Takumi Matsubara, MD, PhD; Akiko Saga, MD, PhD; Yuriko Yoshida, MD; Yu Shimizu, MD, PhD; Eriko Hasumi, MD, PhD; Gaku Oguri, MD, PhD; Toshiya Kojima, MD, PhD; Issei Komuro, MD, PhD

Table 4. Bleeding and Stroke Complications According to Twice- or Once-Daily Direct Oral Anticoagulant Dosing

	Twice-daily dosing (n=304)	Once-daily dosing (n=406)	P value
Total bleeding complications	1 (0.3)	11 (2.7)	0.016
Cardiac tamponade	0 (0)	7 (1.7)	0.0221
Other bleeding complications	1 (0.3)	4 (0.9)	0.398
Stroke/transient ischemic attack	0 (0)	3 (0.7)	0.264
Total no. complications	1 (0.3)	11 (2.7)	0.016

Values are presented as n (%).

incidence of major bleeding events within the first 30 days after CA. In all, 710 consecutive patients were included in the study. Bleeding complications were less frequent in the uninterrupted twice- than once-daily DOACs group. However, the incidence of cardiac tamponade across all DOACs was low (0.98%; 7/710), suggesting that uninterrupted DOACs without changes to the dosing regimen may be an acceptable strategy. The rate of total bleeding events, including minor bleeding (12/710; 1.6%), was also satisfactory.

Conclusions: Uninterrupted DOACs without any change in dosing regimen for patients undergoing CA for AF is acceptable. Bleeding complications may be less frequent in patients receiving DOACs twice rather than once daily.

Circ Rep 2021; 3: 481 – 487

Recommendations for stroke risk management peri-catheter ablation

Recommendations	Class[a]	Level[b]
In AF patients with stroke risk factors not taking OAC before ablation, it is recommended that pre-procedural management of stroke risk includes initiation of anticoagulation and: • Preferably, therapeutic OAC for at least 3 weeks before ablation, or • Alternatively, the use of TOE to exclude LA thrombus before ablation.	I IIa	C C
For patients undergoing AF catheter ablation who have been therapeutically anticoagulated with warfarin, dabigatran, rivaroxaban, apixaban, or edoxaban, performance of the ablation procedure without OAC interruption is recommended.[878,879,881]	I	A
After AF catheter ablation, it is recommended that: • Systemic anticoagulation with warfarin or a NOAC is continued for at least 2 months post ablation, and • Long-term continuation of systemic anticoagulation beyond 2 months post ablation is based on the patient's stroke risk profile and not on the apparent success or failure of the ablation procedure.	I	C

European Heart Journal (2020) 42, 373-498

2017 HRS/EHRA/ECAS/APHRS/SOLAECE expert consensus statement on catheter and surgical ablation of atrial fibrillation

Table 4 Anticoagulation strategies: pre-, during, and postcatheter ablation of AF

	Recommendation	Class	LOE
Preablation	For patients undergoing AF catheter ablation who have been therapeutically anticoagulated with warfarin or dabigatran, performance of the ablation procedure without interruption of warfarin or dabigatran is recommended.	I	A
	For patients undergoing AF catheter ablation who have been therapeutically anticoagulated with rivaroxaban, performance of the ablation procedure without interruption of rivaroxaban is recommended.	I	B-R
	For patients undergoing AF catheter ablation who have been therapeutically anticoagulated with a NOAC other than dabigatran or rivaroxaban, performance of the ablation procedure without withholding a NOAC dose is reasonable.	IIa	B-NR

During ablation	Heparin should be administered prior to or immediately following transseptal puncture during AF catheter ablation procedures and adjusted to achieve and maintain an ACT of at least 300 seconds.	I	B-NR
	Administration of protamine following AF catheter ablation to reverse heparin is reasonable.	IIa	B-NR

Post Ablasyon Antikoagülasyon

- Atriyumun manüplasyonu
- Skarlar
- İnflamatuvar durum
- Ablasyonun sol atriyal fonksiyonuna etkisi
- Hastanın riski

Patterns of Anticoagulation Use and Cardioembolic Risk After Catheter Ablation for Atrial Fibrillation

Peter A. Noseworthy, MD; Xiaoxi Yao, PhD; Abhishek J. Deshmukh, MBBS; Holly Van Houten, BA; Lindsey R. Sangaralingham, MPH, PhD; Konstantinos C. Siontis, MD; Jonathan P. Piccini, Sr, MD, MHSc; Samuel J. Asirvatham, MD; Paul A. Friedman, MD; Douglas L. Packer, MD; Bernard J. Gersh, MB, ChB, DPhil; Nilay D. Shah, PhD

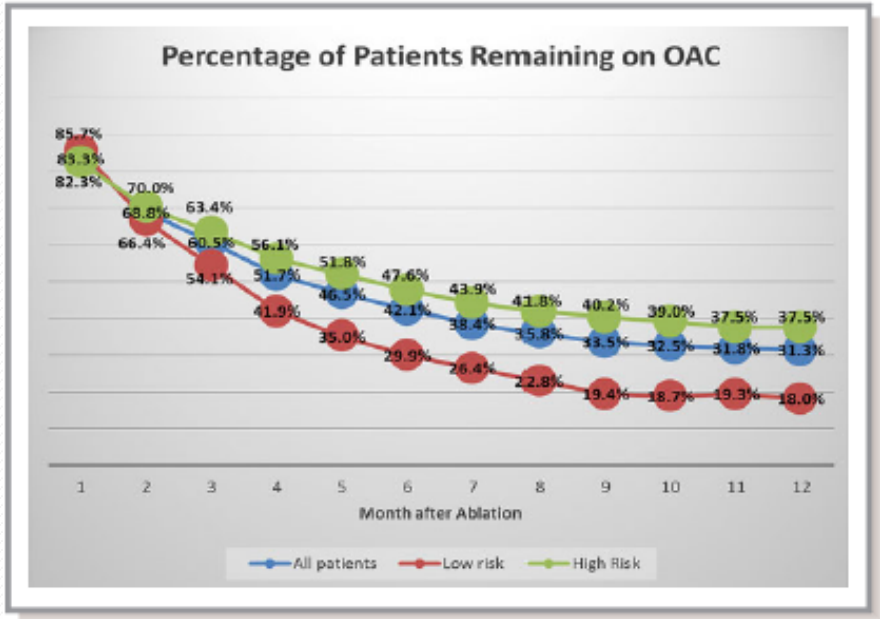


Figure 2. Percentage of patients remaining on oral anticoagulation (OAC) after ablation, stratified by all patients (blue line), low-risk patients (CHA_2DS_2-VASc 0, 1; red line) and high-risk patients (CHA_2DS_2-VASc ≥2; green line).

Table 2. Multivariable Predictors of Risk of Stroke or Systemic Embolism in the First 3 Months After Ablation (n=6886)

Risk Factor	HR (95% CI)
Time not on OAC	
0 day	Reference
≥1 day	8.06* (1.53–42.31)
CHA_2DS_2-VASc	
0 to 1	Reference
2	2.12 (0.43–10.46)
3	2.85 (0.56–14.47)
≥4	3.96 (0.84–18.72)
Index medication	
Warfarin	Reference
NOAC	1.79 (0.71–4.50)

J Am Heart Assoc. 2015;4:e002597

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Table 3. Multivariable Predictors of Risk of Stroke or Systemic Embolism Beyond 3 Months After Ablation (n=6238)

Risk Factor	HR (95% CI)
Time not on OAC	
0 to 3 months	Reference
3 to 6 months	1.69 (0.60–4.78)
6 months to 1 year	2.74* (1.12–6.74)
>1 year	3.98** (1.56–10.12)
CHA_2DS_2-VASc	
0 to 1	Reference
2	0.82 (0.16–4.14)
3	2.41 (0.62–9.37)
≥4	8.50** (2.30–31.36)
Index medication	
Warfarin	Reference
NOAC	0.83 (0.37–1.86)

Table 4. The Interaction of CHA_2DS_2-VASc Score and Anticoagulation Use on the Risk of Stroke or Systemic Embolism Beyond 3 Months After Ablation (n=6238)

Risk Factor	HR (95% CI)
Anticoagulation use	
Low risk patients (CHA_2DS_2-VASc 0 or 1)	
Continuation	Reference
≥3 mo off OAC	0.34 (0.04–2.62)
High risk patients (CHA_2DS_2-VASc ≥2)	
Continuation	Reference
≥3 mo off OAC	2.48* (1.11–5.52)

Conclusion—The overall risk of stroke in postablation patients is low; however, OAC discontinuation after ablation is common and is associated with increased risk of cardioembolism for all patients within the first 3 months and for high-risk patients in the long term. Continuing OAC for at least 3 months in all patients and indefinitely in high-risk patients appears to be the safest strategy. (***J Am Heart Assoc.* 2015;4:e002597 doi: 10.1161/JAHA.115.002597)**

J Am Heart Assoc. 2015;4:e002597

The safety of discontinuation of oral anticoagulation therapy after apparently successful atrial fibrillation ablation: a report from the Chinese Atrial Fibrillation Registry study

Wang-Yang Yang[1,2], Xin Du[1†], Chao Jiang[1], Liu He[1], Ameenathul M. Fawzy[2],

*AF rekürrensi olmayan hastalar
*3 aydan sonra

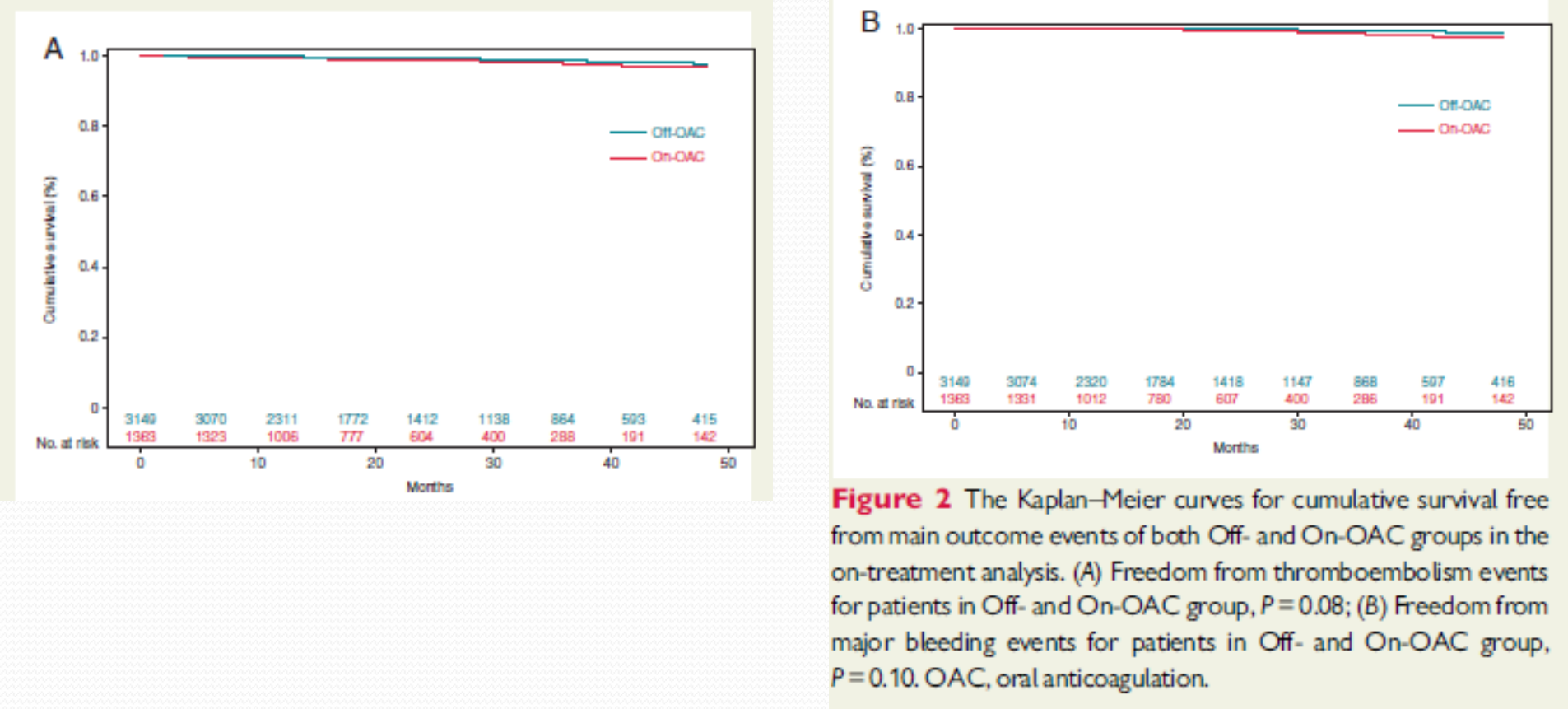

Figure 2 The Kaplan–Meier curves for cumulative survival free from main outcome events of both Off- and On-OAC groups in the on-treatment analysis. (*A*) Freedom from thromboembolism events for patients in Off- and On-OAC group, $P = 0.08$; (*B*) Freedom from major bleeding events for patients in Off- and On-OAC group, $P = 0.10$. OAC, oral anticoagulation.

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Table 4 Individual risk factors associated with thromboembolism events after AF ablation in the on-treatment analysis

	Univariate ($N = 4512$)		Multivariate ($N' = 4413$)	
Variable	HR (95% CI)	*P*-value	HR (95% CI)	*P*-value
OAC discontinuation	0.63 (0.37–1.07)	0.09	0.71 (0.41–1.23)	0.21
Age ≥ 75 years	1.31 (0.62–2.76)	0.49	1.33 (0.62–2.85)	0.47
Female sex	0.84 (0.48–1.47)	0.54	0.88 (0.49–1.58)	0.67
Persistent AF	1.25 (0.72–2.17)	0.44		
Congestive heart failure	0.54 (0.13–2.22)	0.39	0.58 (0.14–2.39)	0.45
Hypertension	0.95 (0.51–1.77)	0.87	0.97 (0.51–1.83)	0.92
Diabetes mellitus	2.19 (1.29–3.71)	<0.01	2.06 (1.20–3.55)	0.01
Previous ischaemic stroke/TIA/systemic embolism	3.26 (1.86–5.71)	<0.01	3.40 (1.92–6.02)	<0.01

The safety of discontinuation of oral anticoagulation therapy after apparently successful atrial fibrillation ablation: a report from the Chinese Atrial Fibrillation Registry study

Wang-Yang Yang[1,2], Xin Du[1†], Chao Jiang[1], Liu He[1], Ameenathul M. Fawzy[2],

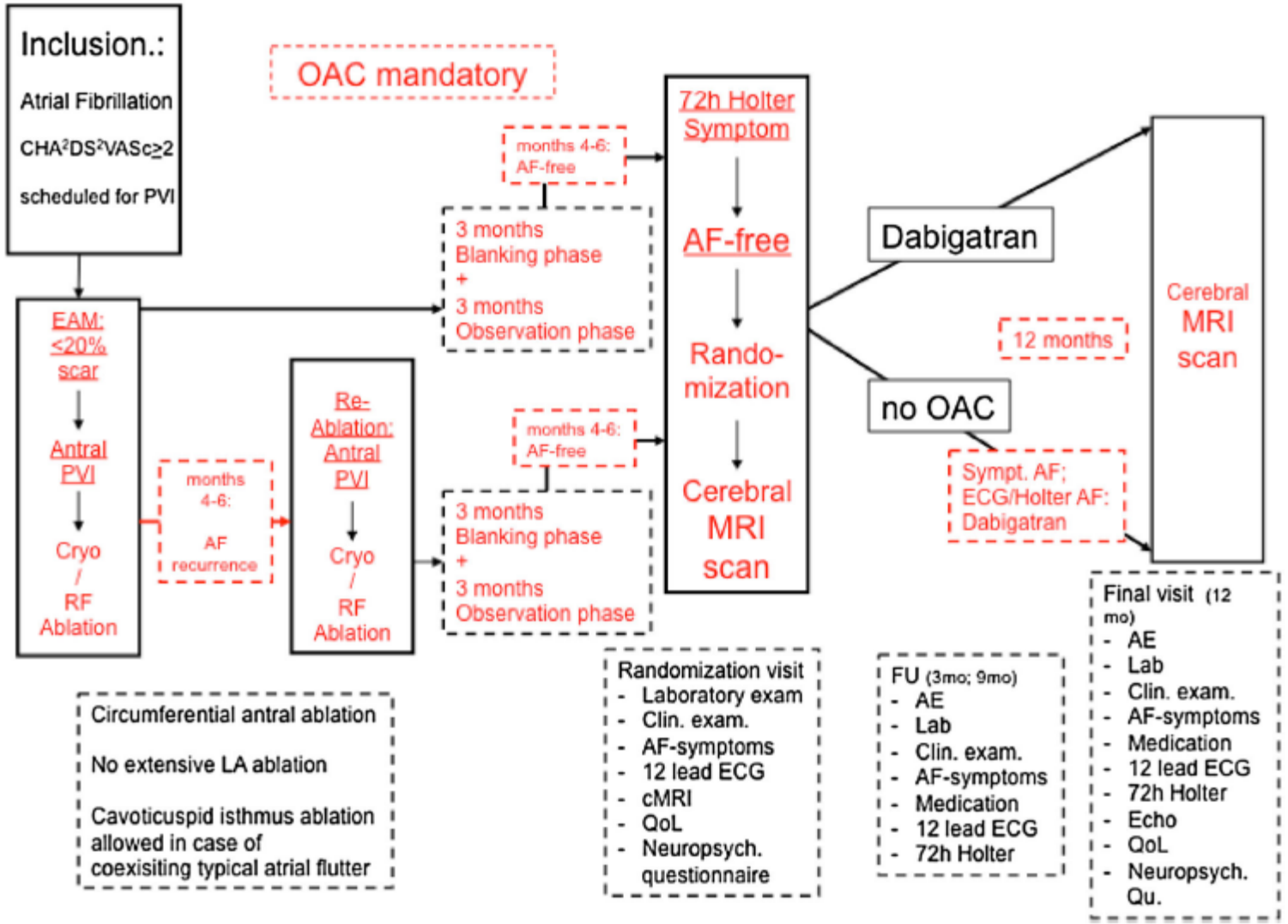
Table 6 Individual predictors associated with major bleeding after AF ablation in the on-treatment analysis

	Univariate ($N = 4512$)		Multivariate ($N' = 4308$)	
Variable	HR (95% CI)	*P*-value	HR (95% CI)	*P*-value
On-OAC	2.06 (0.86–4.89)	0.10	1.69 (0.68–4.20)	0.26
Age ≥ 75 years	2.67 (0.98–7.29)	0.06	1.56 (0.48–5.07)	0.46
Female sex	1.34 (0.57–3.18)	0.51	1.18 (0.47–2.96)	0.73
Persistent AF	0.80 (0.29–2.19)	0.67		
Congestive heart failure	1.54 (0.36–6.62)	0.56	0.83 (0.15–4.51)	0.83
Hypertension	2.88 (0.67–12.38)	0.15	2.56 (0.58–11.28)	0.21
Diabetes mellitus	2.12 (0.89–5.04)	0.09	2.07 (0.82–5.25)	0.12
Previous ischaemic stroke/TIA/systemic embolism	2.17 (0.80–5.92)	0.13	1.90 (0.64–5.63)	0.25
Vascular disease	1.49 (0.35–6.39)	0.59	1.18 (0.27–5.17)	0.82
Hypercholesterolaemia	1.07 (0.45–2.54)	0.88		
Prior bleeding	6.62 (2.23–19.69)	<0.01	3.77 (1.05–13.51)	0.04
Liver dysfunction	–	0.99		
Renal dysfunction	13.24 (3.86–45.35)	<0.01	5.39 (1.17–24.86)	0.03
Obesity	0.59 (0.17–2.01)	0.40		
Drinking	0.37 (0.09–1.58)	0.18		
Smoking	0.55 (0.13–2.36)	0.42		
LAD ≥ 40 mm	1.99 (0.78–5.06)	0.15		

Conclusions This study suggests that it may be safe to discontinue OAC in post-ablation patients under diligent monitoring, in the absence of AF recurrence, history of IS/TIA/SE, and diabetes mellitus. However, further large-scale randomized trials are required to confirm this.

Rationale and design of the ODIn-AF Trial: randomized evaluation of the prevention of silent cerebral thromboembolism by oral anticoagulation with dabigatran after pulmonary vein isolation for atrial fibrillation

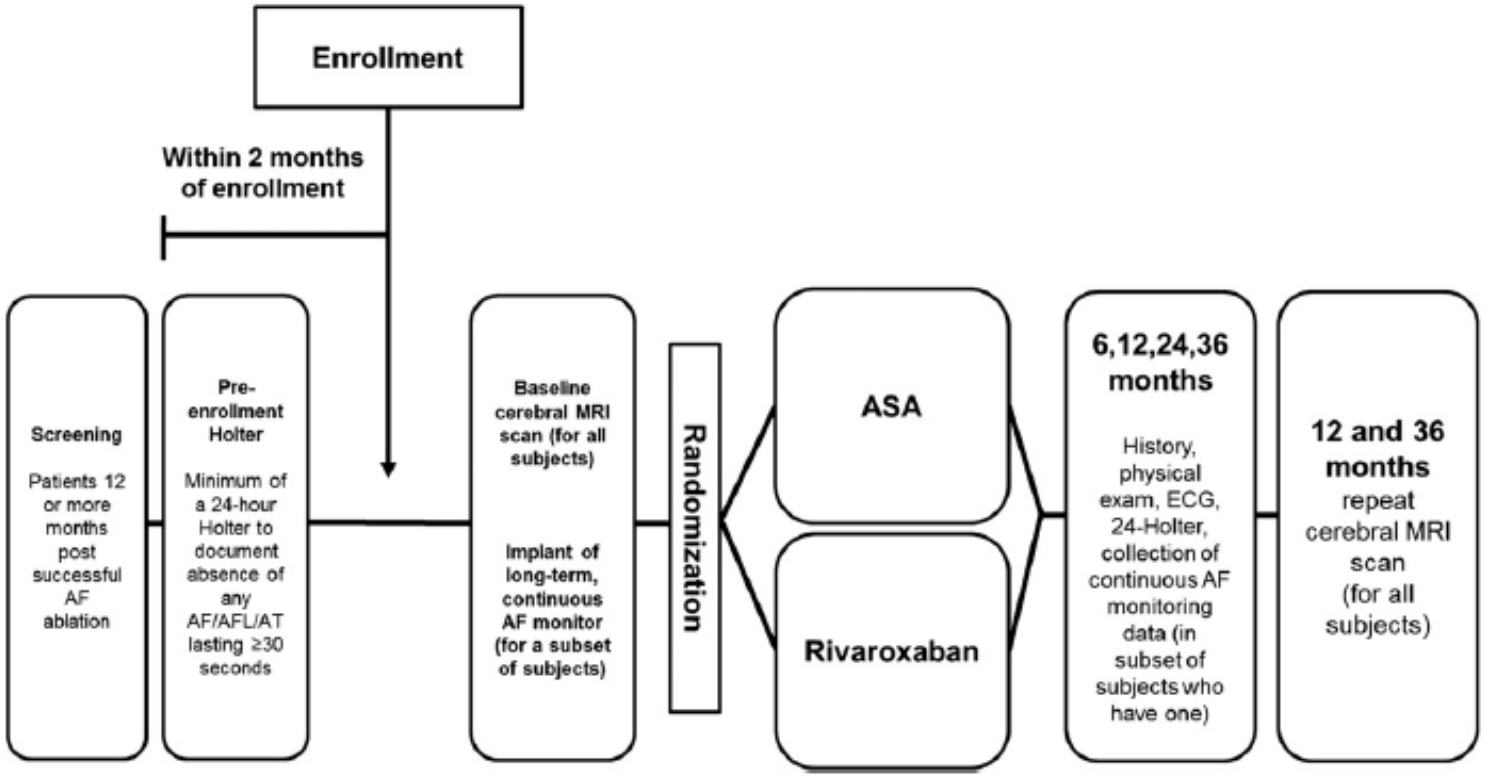
Jan W. Schrickel[1,2,3] · Markus Linhart[1,2,3] · Dietmar Bänsch[1,2,3] · Daniel Thomas[1,2,3] · Georg Nickenig[1,2,3]



The Optimal Anti-Coagulation for Enhanced-Risk Patients Post–Catheter Ablation for Atrial Fibrillation (OCEAN) trial

Atul Verma, MD,[a,b] Andrew C. T. Ha, MD,[b,c] Paulus Kirchhof, MD,[d,e,f,g,h] Gerhard Hindricks, MD,[i] Jeff S. Healey, MD,[j] Michael D. Hill, MD,[k] Mukul Sharma, MD,[j] D. George Wyse, MD, PhD,[l] Jean Champagne, MD,[m] Vidal Essebag, MD, PhD,[n,o] George Wells, PhD,[p] Dhiraj Gupta, MD,[q] Hein Heidbuchel, MD, PhD,[r] Prashanthan Sanders, MBBS, PhD,[s] and David H. Birnie, MD[p] *Ontario, Canada; Birmingham, United Kingdom; Münster, Leipzig, Germany; Alberta, Québec, Canada; Liverpool, United Kingdom; Antwerp, Belgium; and Adelaide, Australia*

Figure 2



Study flow diagram for the OCEAN trial.

Long-term oral anticoagulant after catheter ablation for atrial fibrillation

Derek Chew[1] and Jonathan P. Piccini [1,2]*

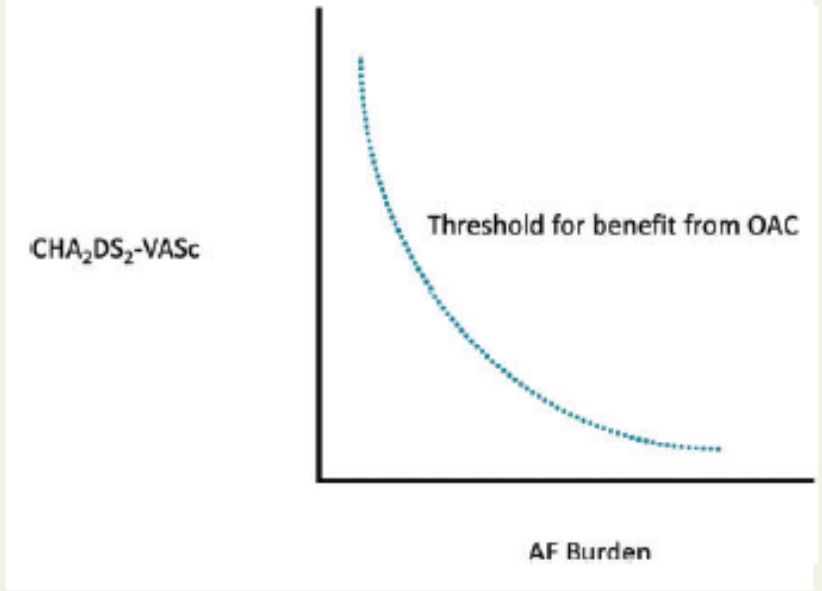


Figure 2 Potential relationship between AF clinical risk score and arrhythmia burden. AF, atrial fibrillation; OAC, oral anticoagulation.

Europace (2020) 00, 1–9

Recommendations for stroke risk management peri-catheter ablation

Recommendations	Class[a]	Level[b]
In AF patients with stroke risk factors not taking OAC before ablation, it is recommended that pre-procedural management of stroke risk includes initiation of anticoagulation and: • Preferably, therapeutic OAC for at least 3 weeks before ablation, or • Alternatively, the use of TOE to exclude LA thrombus before ablation.	I IIa	C C
For patients undergoing AF catheter ablation who have been therapeutically anticoagulated with warfarin, dabigatran, rivaroxaban, apixaban, or edoxaban, performance of the ablation procedure without OAC interruption is recommended.[878,879,881]	I	A
After AF catheter ablation, it is recommended that: • Systemic anticoagulation with warfarin or a NOAC is continued for at least 2 months post ablation, and • Long-term continuation of systemic anticoagulation beyond 2 months post ablation is based on the patient's stroke risk profile and not on the apparent success or failure of the ablation procedure.	I	C

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	to reverse heparin is reasonable.		
Postablation	In patients who are not therapeutically anticoagulated prior to catheter ablation of AF and in whom warfarin will be used for anticoagulation postablation, low molecular weight heparin or intravenous heparin should be used as a bridge for initiation of systemic anticoagulation with warfarin following AF ablation.*	I	C-EO
	Systemic anticoagulation with warfarin* or a NOAC is recommended for at least 2 months postcatheter ablation of AF.	I	C-EO
	Adherence to AF anticoagulation guidelines is recommended for patients who have undergone an AF ablation procedure, regardless of the apparent success or failure of the procedure.	I	C-EO
	Decisions regarding continuation of systemic anticoagulation more than 2 months post ablation should be based on the patient's stroke risk profile and not on the perceived success or failure of the ablation procedure.	I	C-EO

Erken Dönem Antiaritmik Tedavi

Ablasyon sonrası

Erken Rekürrens (0-3 ay)

- Ablasyon işleminden kaynaklı akut inflamasyon
- Ablasyon alanlarında erken yeniden konneksiyon
- Geçici otonom sinir sistemi değişiklikleri
- Geç lezyon oluşumu

Geç rekürrens (3 ay sonrası)

- Pulmoner venlerle atriyumlar arası rekonneksiyon

Erken rekürrens işlem başarısızlığını göstermez ancak geç rekürrenslerin olasılığını arttırır!

GEÇ REKÜRRENSLER ?

HASTANIN SEMPTOMLARI?

BAŞARI ORANI ?

YAN ETKİ ?

POST ABLASYON HASTANE YATIŞLARINI AZALTIR

HASTADA PSİKOLOJİK STRESİ AZALTIR

Antiarrhythmics After Ablation of Atrial Fibrillation (5A Study)

Six-Month Follow-Up Study

Peter Leong-Sit, MD; Jean-Francois Roux, MD; Erica Zado, PA-C; David J. Callans, MD; Fermin Garcia, MD; David Lin, MD; Francis E. Marchlinski, MD; Rupa Bala, MD; Sanjay Dixit, MD; Michael Riley, MD, PhD; Mathew D. Hutchinson, MD; Joshua Cooper, MD; Andrea M. Russo, MD; Ralph Verdino, MD; Edward P. Gerstenfeld, MD

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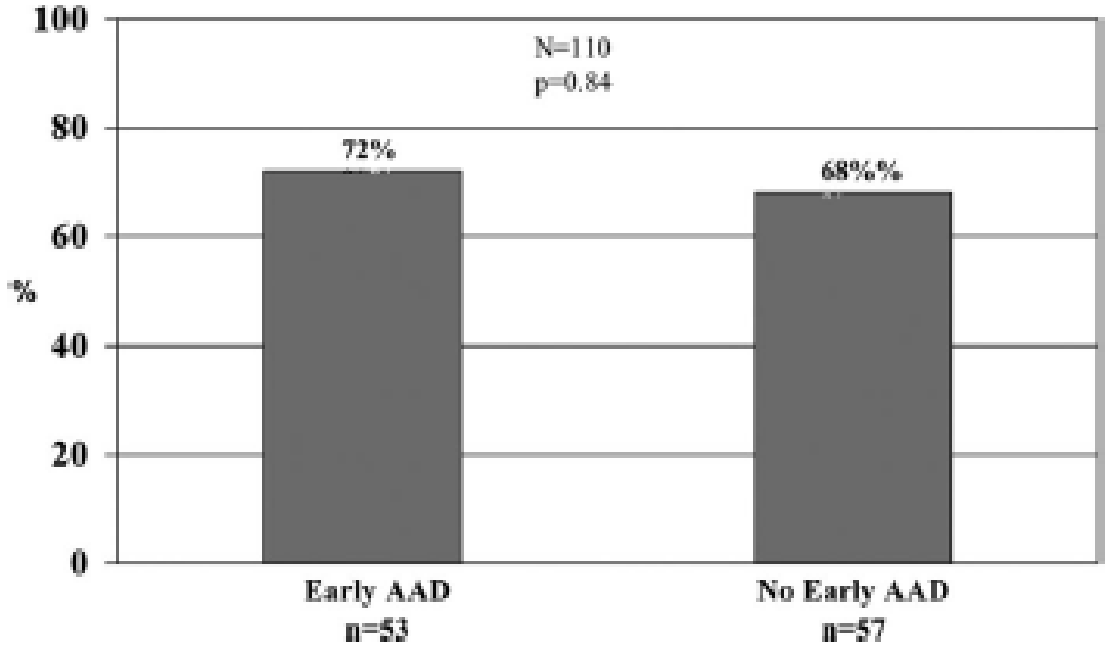


Figure 1. Percentage of patients with freedom from AF 6 months after ablation. There was no significant difference in outcome between patients randomized to early AAD compared with those randomized to no AAD.

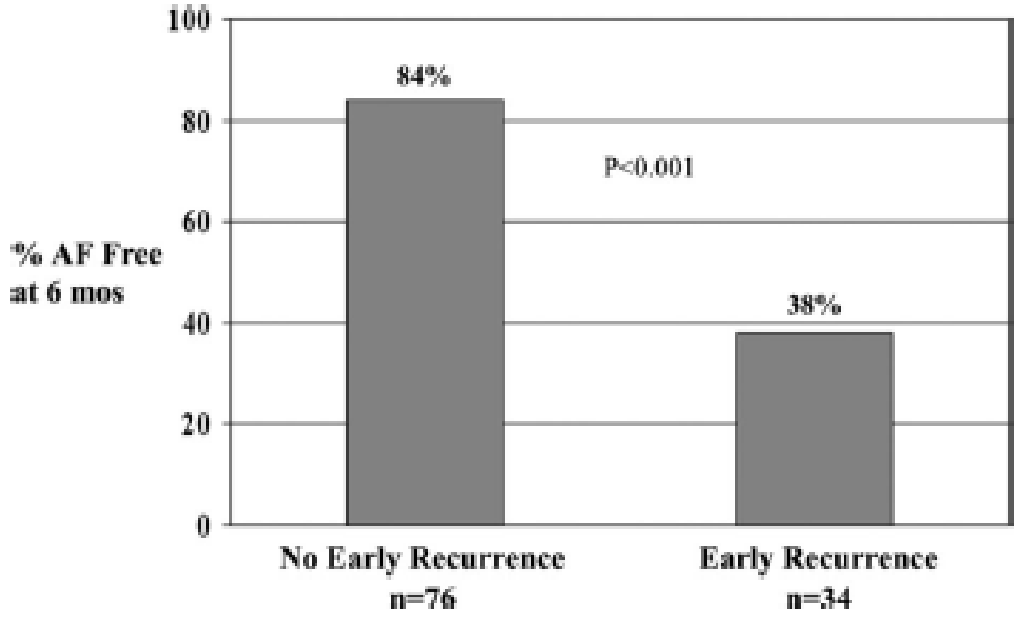


Figure 2. The only predictor of freedom from AF at 6 months was lack of early AF occurrence during the 6-week blanking period. Of those without early AF occurrences, 84% remained free of AF at 6 months compared with only 38% AF freedom in those with early AF occurrences.

Circ Arrhythm Electrophysiol. 2011;4:11-14.)

Recurrence of arrhythmia following short-term oral AMIOdarone after CATheter ablation for atrial fibrillation: a double-blind, randomized, placebo-controlled study (AMIO-CAT trial)

Stine Darkner[1]*, Xu Chen[1], Jim Hansen[2], Steen Pehrson[1], Arne Johannessen[2], Jonas Bille Nielsen[1], and Jesper Hastrup Svendsen[1,3,4]

8 hafta Amiodaron

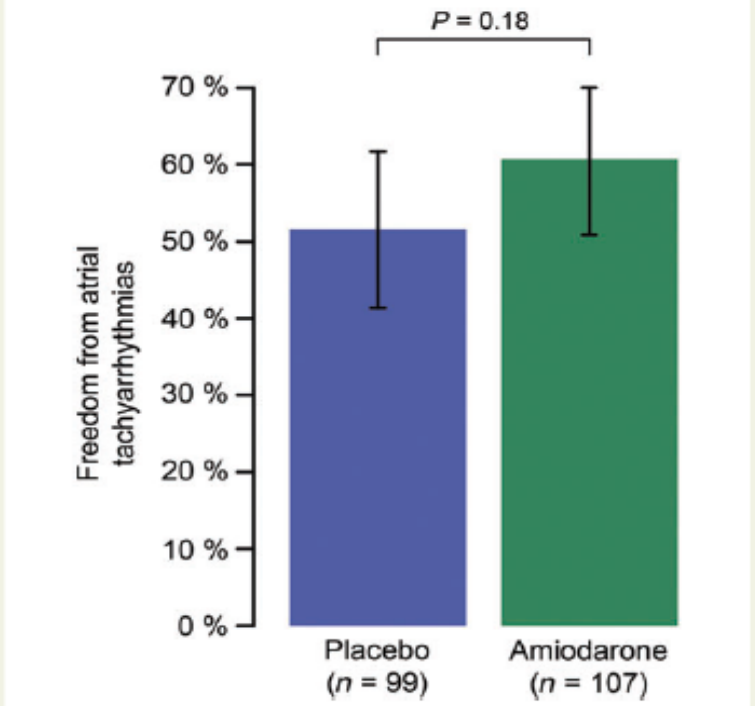


Figure 2 Bar chart illustrating differences in freedom from AF/AT at the 6-month follow-up between the placebo and the amiodarone group.

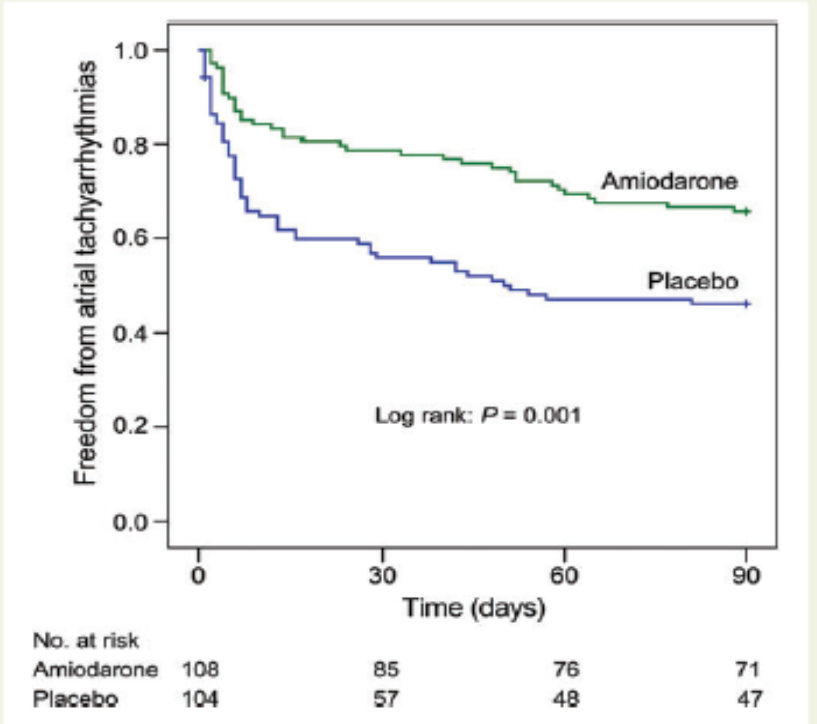


Figure 3 Kaplan–Meier curves displaying time to first documented atrial tachyarrhythmia lasting >30 s within 3-month blanking period in the amiodarone group and the placebo group.

Eur Heart j 2014 Dec 14;35(47):3356-64

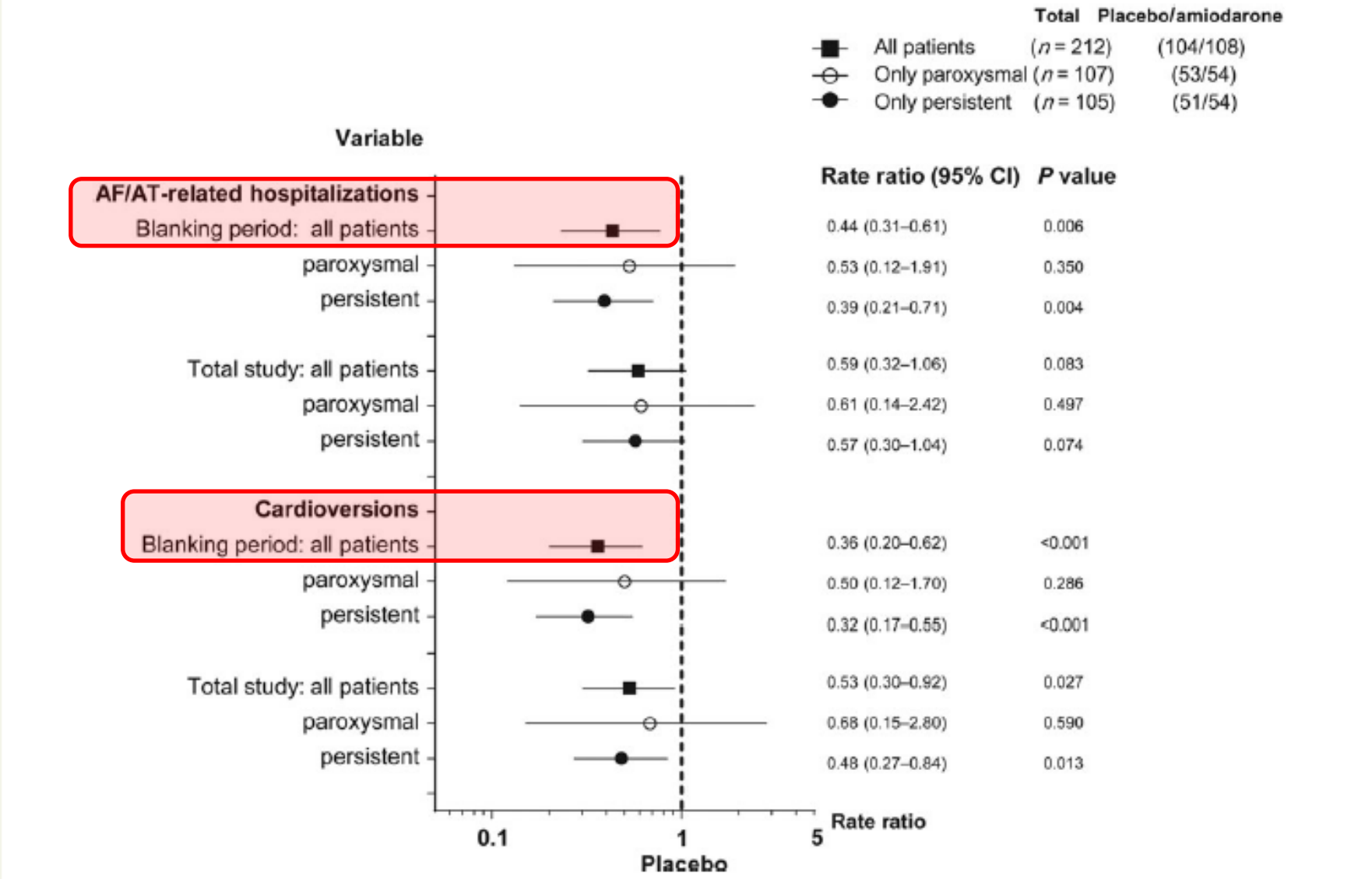
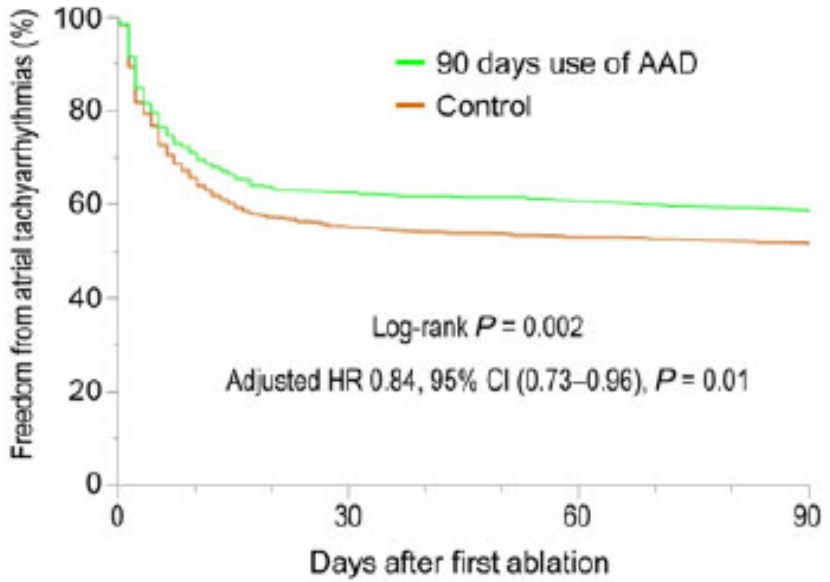


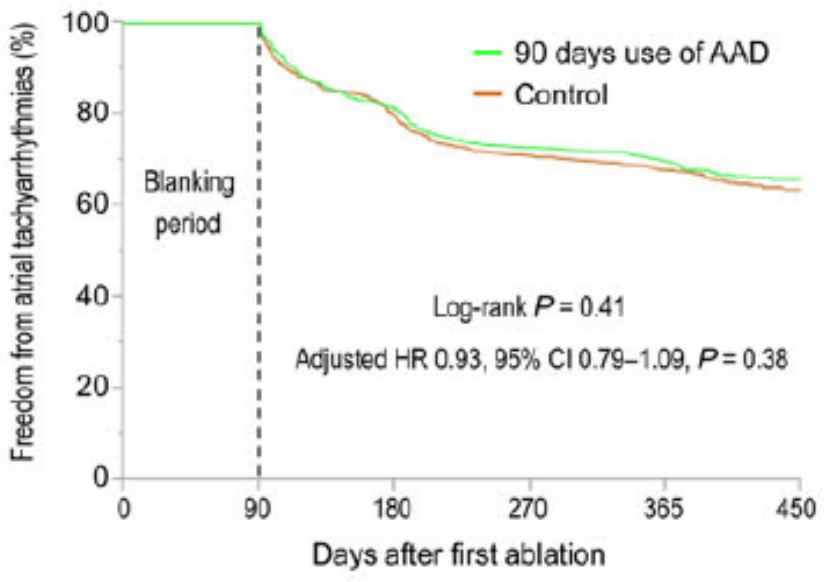
Figure 4 Forest plot displaying AF/AT-related hospitalizations and cardioversions as Poisson rate ratio for the amiodarone group compared with the placebo group.

Efficacy of Antiarrhythmic Drugs Short-Term Use After Catheter Ablation for Atrial Fibrillation (EAST-AF) trial

Kazuaki Kaitani[1†], Koichi Inoue[2†], Atsushi Kobori[3], Yuko Nakazawa[4], Tomoya Ozawa[4], Toshiya Kurotobi[5], Itsuro Morishima[6], Fumiharu Miura[7], Tetsuya Watanabe[8], Masaharu Masuda[8], Masaki Naito[9], Hajime Fujimoto[9], Taku Nishida[10], Yoshio Furukawa[11],

AAD 1016
Kontrol 1022





Eur Heart J. 2016 Feb 14;37(7):610-8

Efficacy of Antiarrhythmic Drugs Short-Term Use After Catheter Ablation for Atrial Fibrillation (EAST-AF) trial

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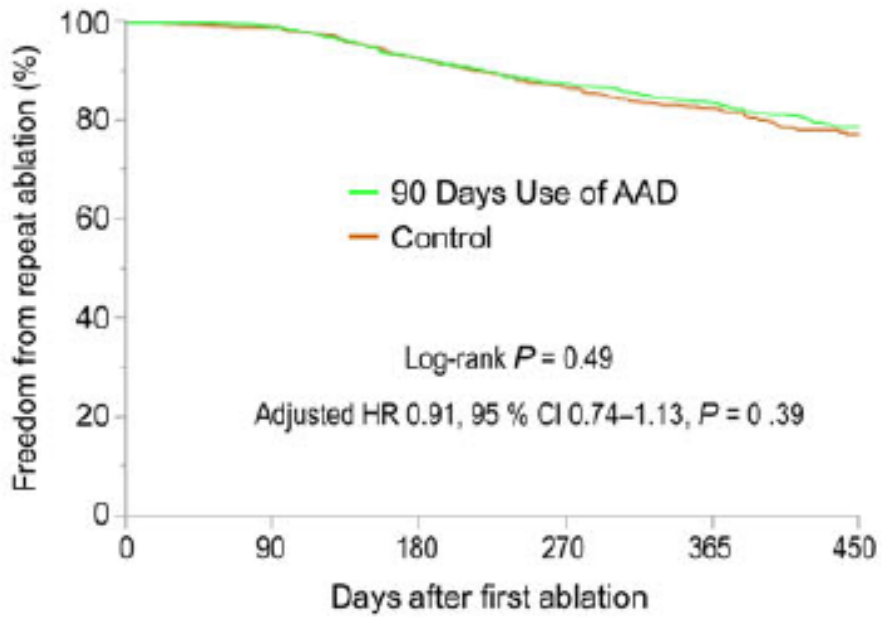

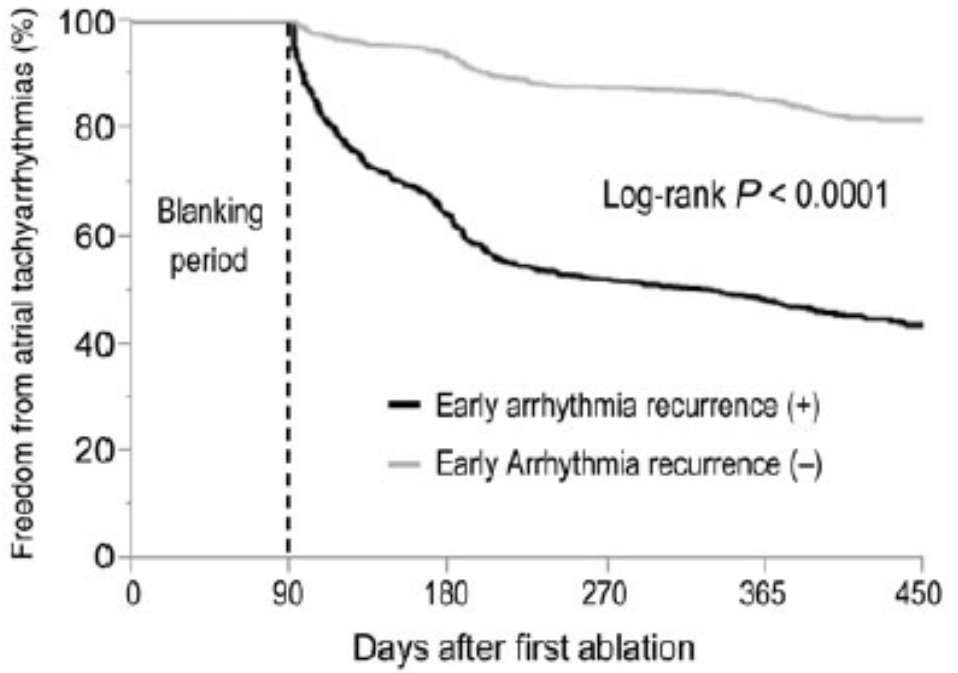

Conclusion

Short-term use of AAD for 90 days following AF ablation reduced the incidence of recurrent atrial tachyarrhythmias during the treatment period, but it did not lead to improved clinical outcomes at the later phase.

PulmOnary vein isolation With vs. without continued antiarrhythmic Drug trEatment in subjects with Recurrent Atrial Fibrillation (POWDER AF): results from a multicentre randomized trial

Mattias Duytschaever[1,2], Anthony Demolder[1], Thomas Phlips[3], Andrea Sarkozy[3], Milad El Haddad[1,2], Philippe Taghji[1], Sebastien Knecht[1], Rene Tavernier[1], Yves Vandekerckhove[1], and Tom De Potter[4]

3 ay blanking
periyotta AF olmayan hastalar;
3-12 ay arasında AAİ

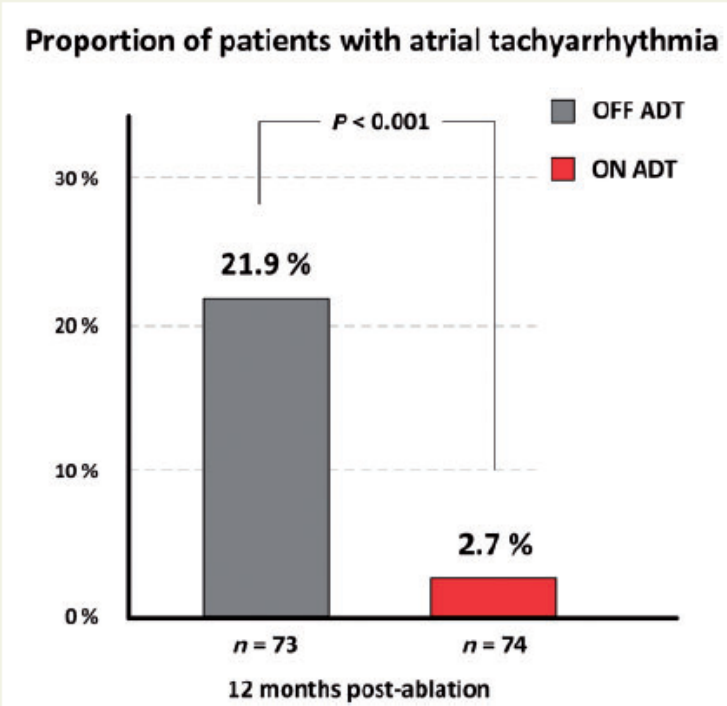

Figure 3 Bar charts illustrating the difference in any documented atrial tachyarrhythmia lasting >30 s from 3 months to 12 months of follow-up after pulmonary vein isolation between the antiarrhythmic drug therapy OFF and ON groups (cumulative occurrence).

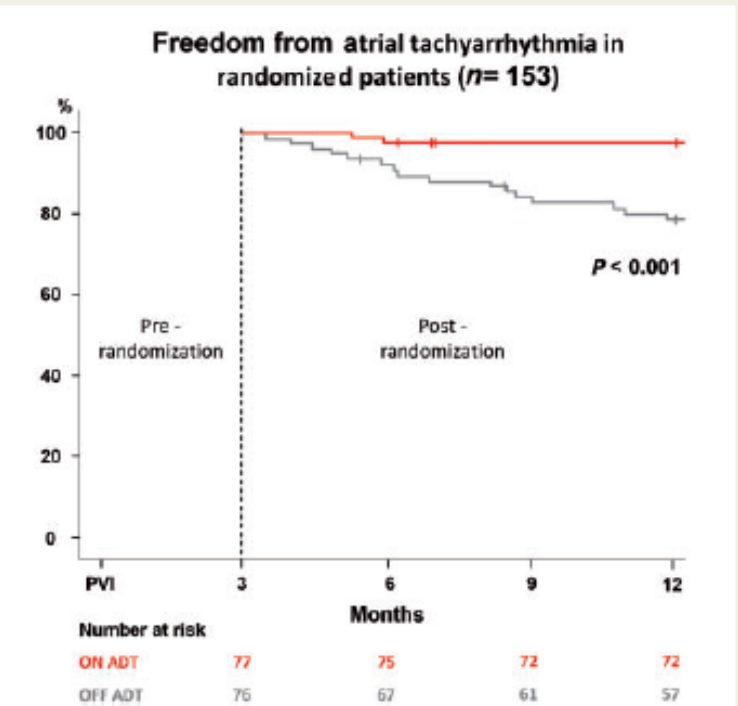

Figure 4 The Kaplan–Meier curves depicting time to first recurrence of documented atrial tachyarrhythmia lasting >30 s in the antiarrhythmic drug therapy ON group and the OFF group. Randomization was performed at 3 months post-pulmonary vein isolation (dotted line).

European Heart Journal (2017) 0, 1–9

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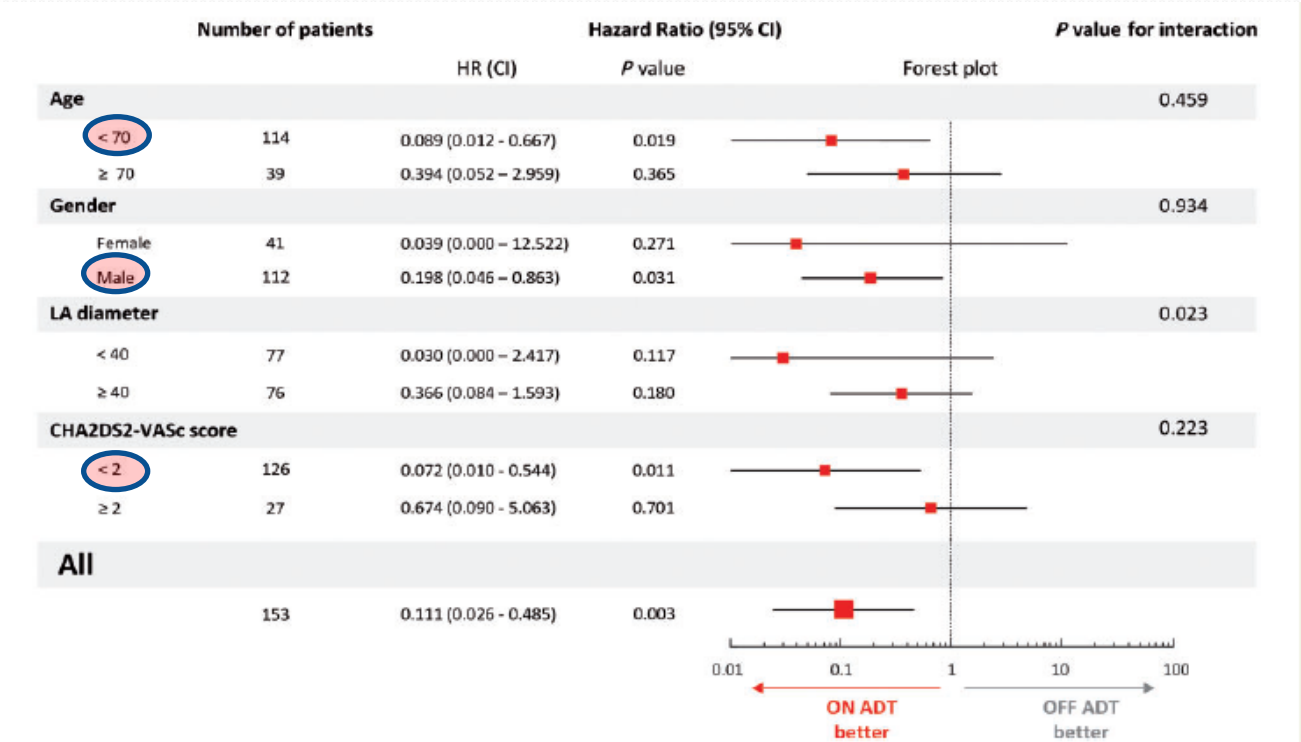

Figure 6 Forest plot displaying the hazard ratio for recurrence for the antiarrhythmic drug therapy ON group compared with the OFF group.

teristics were comparable between both groups. Three patients were lost to follow-up in each arm. The primary endpoint was observed in 2 of 74 (2.7%) patients in the ADT ON group vs. 16 of 73 (21.9%) patients in the ADT OFF group ($P < 0.001$). The ADT ON group had a lower rate of repeat ablation [1.4% vs. 19.2%, hazard ratio (HR) = 0.053; 95% confidence interval (CI) 0.007–0.399; $P < 0.01$) and less unscheduled arrhythmia-related health care visits (2.7% vs. 20.5%, HR = 0.055, 95% CI 0.007–0.410; $P < 0.01$). Quality-of-life scores were similar in both groups.

Management of antiarrhythmic medication and treatment of AF recurrences

a. Continuing AAD treatment for 6 weeks to 3 months may reduce early AF recurrences, rehospitalizations and cardioversions during this period.[797,804] Clinical practice regarding routine AAD treatment after ablation varies and there is no convincing evidence that such treatment is routinely needed.

b. Subsequently, AADs may be weaned, ceased, or continued according to symptoms and rhythm status. Recent findings suggest that in AAD-treated patients remaining free of AF at the end of the blanking period, AAD continuation beyond the blanking period reduces arrhythmia recurrences.[805]

2017 HRS/EHRA/ECAS/APHRS/SOLAECE expert consensus statement on catheter and surgical ablation of atrial fibrillation

Hugh Calkins, MD (Chair),[1] Gerhard Hindricks, MD (Vice-Chair),[2,*]

Table 3 (*Continued*)

Recommendation	Class	LOE	References
to improve long-term outcomes is unclear.			
The usefulness of initiation or continuation of antiarrhythmic drug therapy during the postablation healing phase in an effort to improve long-term outcomes is unclear.	IIb	C-LD	617–621

TEŞEKKÜRLER