



Les anticoagulants dans l'amylose : OUI



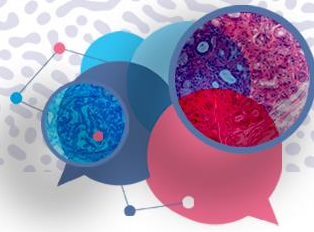
Dr Khaled RAMOUL

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Filière Cardiogen

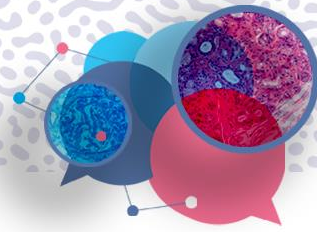
Service de Cardiologie

G.H.U. Henri Mondor - Créteil



Conflit d'intérêt :

Aucun avec cette présentation

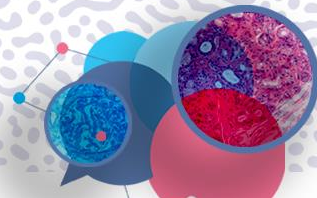


33 % des patients en FA au moment du diagnostic d'amylose TTR Jusqu'à 7 patients sur 10 en FA

Table 2 Prevalence of AF in AL and TTR amyloidosis in most recent studies

Study, date	Population	Overall prevalence	Prevalence in TTR	Prevalence in AL
Longhi <i>et al.</i> , 2015 ²⁰	N = 262 123 AL, 94 hTTR, 45 wtTTR	15%	35%	9%
Mints <i>et al.</i> , 2018 ²³	N = 146 wtTTR	70%	70%	—
Sanchis <i>et al.</i> , 2019 ¹⁹	N = 238, 115 AL, 97 wtTTR, 26 hTTR	44%	60%	26%
Martinez-Naharro <i>et al.</i> , 2019 ¹⁸	N = 324, 166 TTR, 155 AL	—	46%	14%
Mitrani <i>et al.</i> , 2020 ²¹	N = 290 TTR	75%	75%	—
Donellan <i>et al.</i> , 2020 ²²	N = 265, 205 wt, 60 vTTR	69%	69%	—

AL, immunoglobulin light chain amyloidosis; TTR, transthyretin; vTTR, variant transthyretin; wtTTR: wild type transthyretin.



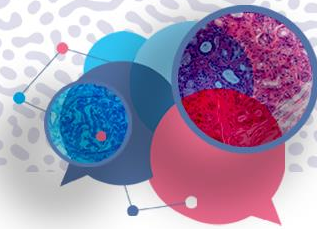
Thromboembolic and bleeding risk in cardiac amyloidosis

Marco Tana^{1,2} | Claudio Tana³ | Davide Rossi^{4,5} | Cesare Mantini⁴ |
Sabina Gallina^{4,5} | Fabrizio Ricci^{4,5,6,7} | Ettore Porreca^{1,2}

TABLE 2 Thromboembolic risk in cardiac amyloidosis: summary of clinical studies.

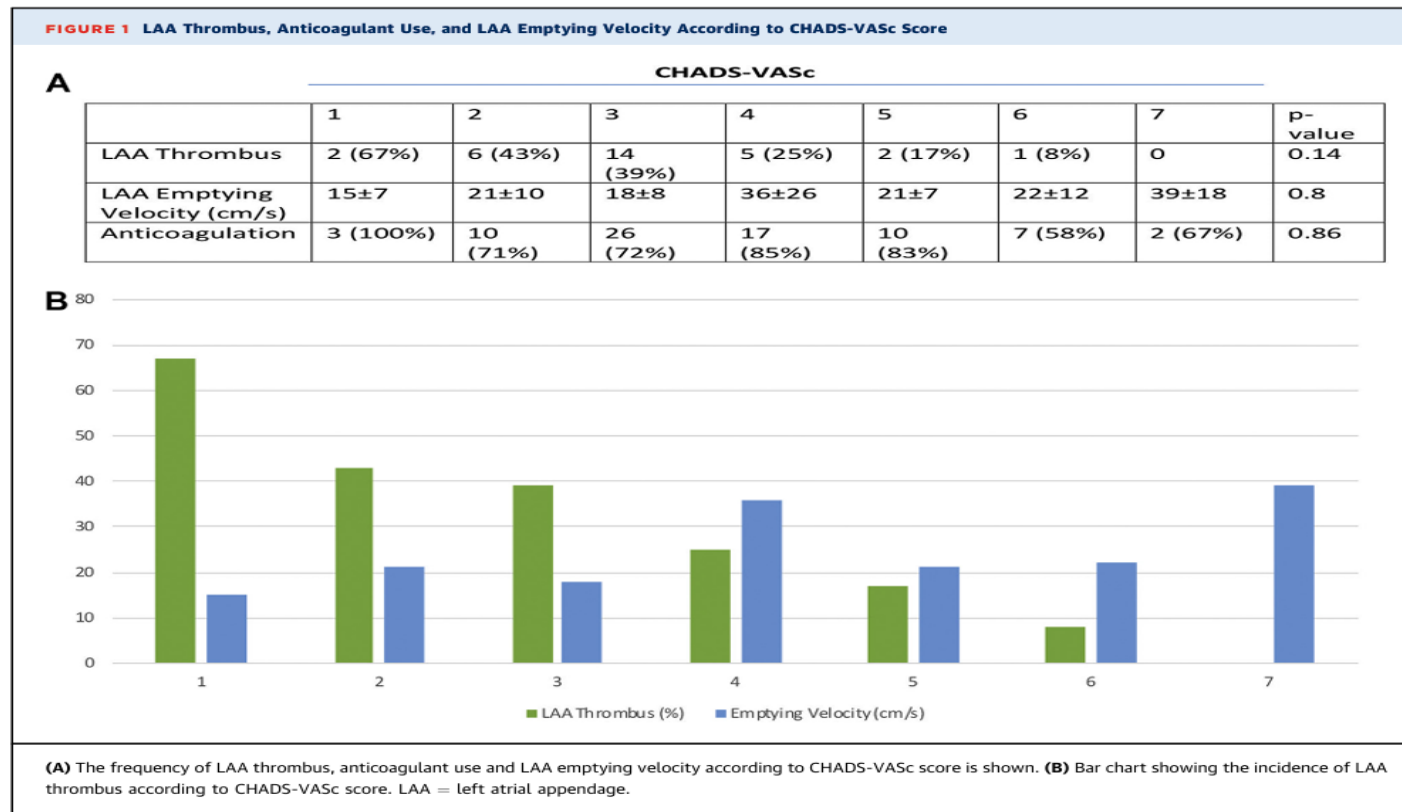
Study	Population	Thromboembolic event	Incidence	Risk factors
Feng et al. [9], 2007	N = 116 autopsies (55 AL; 55 wtATTR; 4 AA)	Intracardiac thrombi at autopsy	33%	AF, AL subtype
Feng et al. [10], 2009	N = 156 (73 ATTR; 3 AA)	Intracardiac thrombi by Echo	27%	LV diastolic dysfunction, blunted LAA velocity, AF, AL subtype
Martinez-Naharro et al. [13], 2019	N = 324 (166 ATTR; 155 AL)	Intracardiac thrombi by CMR	6%	Biventricular systolic dysfunction, atrial dilatation, higher ECV, AF, AL subtype
El-Am et al. [12], 2019	N = 58 (29 AL; 25 wtATTR; 4 hATTR)	Intracardiac thrombi by Echo	28%	AF, AL subtype
Mitrani et al. [41], 2021	N = 290 (ATTR)	Ischemic stroke, n = 9; minor stroke, n = 8	6%	AF, labile INR
Cappelli et al. [15], 2021	N = 262 (134 AL; 73 hATTR; 199 wtATTR)	Stroke, n = 21; minor stroke, n = 8;	8%	AF, LVEF <50%, CHADS-VASc score >2, CKD
Bukhari et al. [42], 2021	N = 168 (68 wtATTR; 77 controls)	Stroke, n = 18; minor stroke, n = 4;	36% wtATTR; 19% control group	AF, LAVi, CHADS-VASc score >2; LV diastolic dysfunction
Vilches et al. [14], 2022	N = 1191 (990 wtATTR; 201 hATTR)	Stroke, n = 41	3%	AF, prior stroke, LV diastolic dysfunction

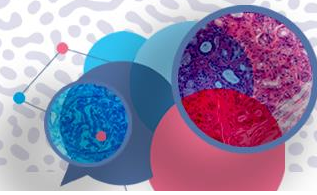
AA, amyloid A; AF, atrial fibrillation; AL, light-chain; ATTR, transthyretin; CHA₂DS₂-VASc, Congestive heart failure, Hypertension, Age ≥75 years (doubled), Diabetes mellitus, prior Stroke or TIA or thromboembolism (doubled), Vascular disease, Age 65 to 74 years, Sex category; CKD, chronic kidney disease; CMR, cardiac magnetic resonance; Echo, echocardiography; ECV, extracellular volume; hATTR, hereditary transthyretin amyloidosis; INR, international normalized ratio; LAA, left atrial appendage; LAVi, left atrial volume index; LV, left ventricle; LVEF, left ventricle ejection fraction; wtATTR, wild-type transthyretin amyloidosis.



No Association Between CHADS-VASc Score and Left Atrial Appendage Thrombus in Patients With Transthyretin Amyloidosis

FA = OAC





Systemic embolism in amyloid transthyretin cardiomyopathy

Silvia Vilches^{1†}, Marianna Fontana^{2†}, Esther Gonzalez-Lopez¹, Lindsey Mitrani³, Giulia Satrio⁴, Mary Renju², Jan M. Griffin³, Angelo Caponetti⁴, Sahana Gnanasampanthan², Jeffeny De los Santos³, Christian Gagliardi⁴, Adrian Rivas¹, Fernando Dominguez¹, Simone Longhi⁴, Claudio Rapezzi^{5,6}, Mathew S. Maurer³, Julian Gillmore², and Pablo Garcia-Pavia^{1,7,8,9*}

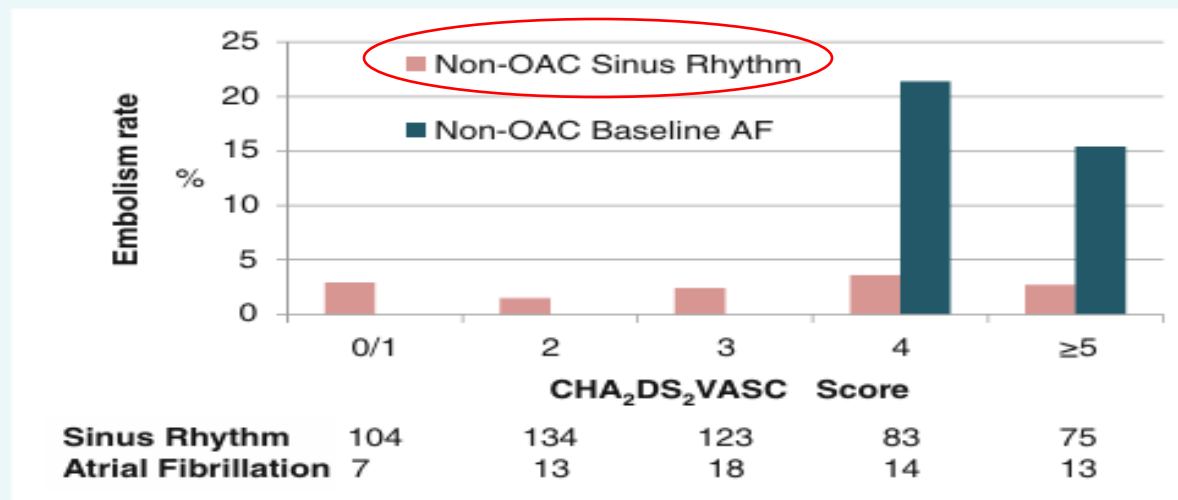
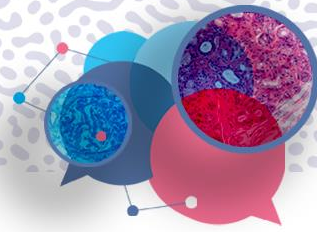


Figure 2 Prevalence of embolic events during follow-up in non-anticoagulated patients with atrial fibrillation (AF) and non-anticoagulated patients in sinus rhythm according to the CHA₂DS₂-VASC score. OAC, oral anticoagulation.



Systemic embolism in amyloid transthyretin cardiomyopathy

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1191 ATTR-CM;
4 INTERNATIONAL CENTERS
87% MALES; 77.1 YEARS (IQR 71.4-82);
83% ATTR-WT

Embolic events are frequent

Overall Prevalence of embolic events: 16%
Overall Incidence of embolic events: 1.64 events
per 100 patients-year

EMBOLIC EVENTS BY GROUPS

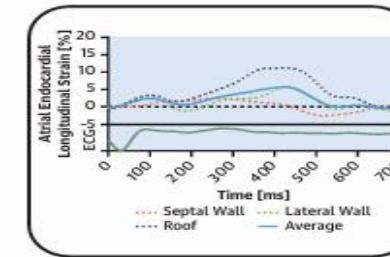
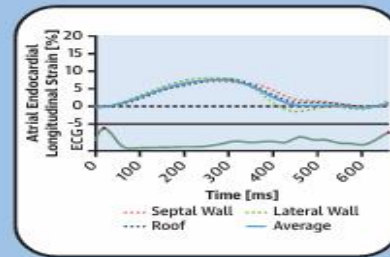
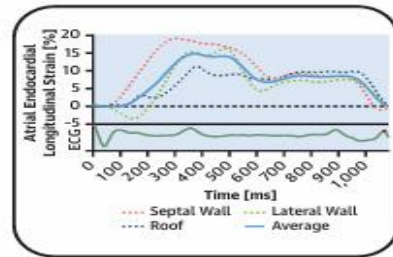
SR with OAC	→	0 events
SR without OAC	→	1.3 per 100 patients-year
AF with OAC	→	1.7 per 100 patients-year
AF without OAC	→	4.8 per 100 patients-year

CHA2DS2VASc score is not useful

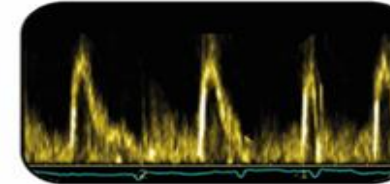
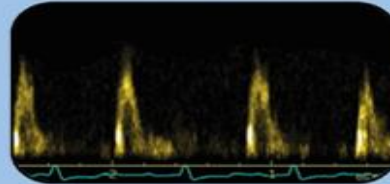
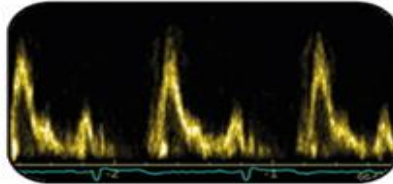
Clinical Importance of Left Atrial Infiltration in Cardiac Transthyretin Amyloidosis

Francesco Bandera, MD, PhD,^{a,b,*} Raffaele Martone, MD,^{c,*} Liza Chacko, MD,^d Sharmananthan Ganesanathan, MS,^d

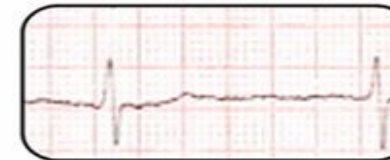
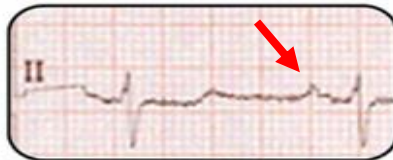
Atrial dysfunction



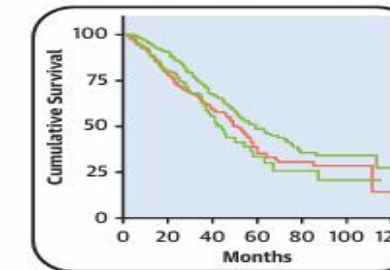
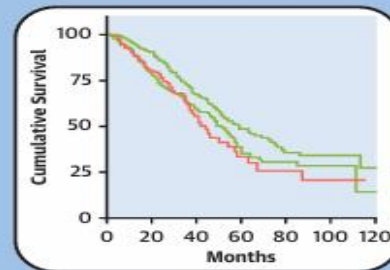
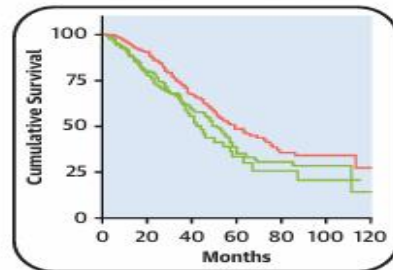
Transmitral Doppler



ECG



Survival



ATRIAL ELECTROMECHANICAL DISSOCIATION

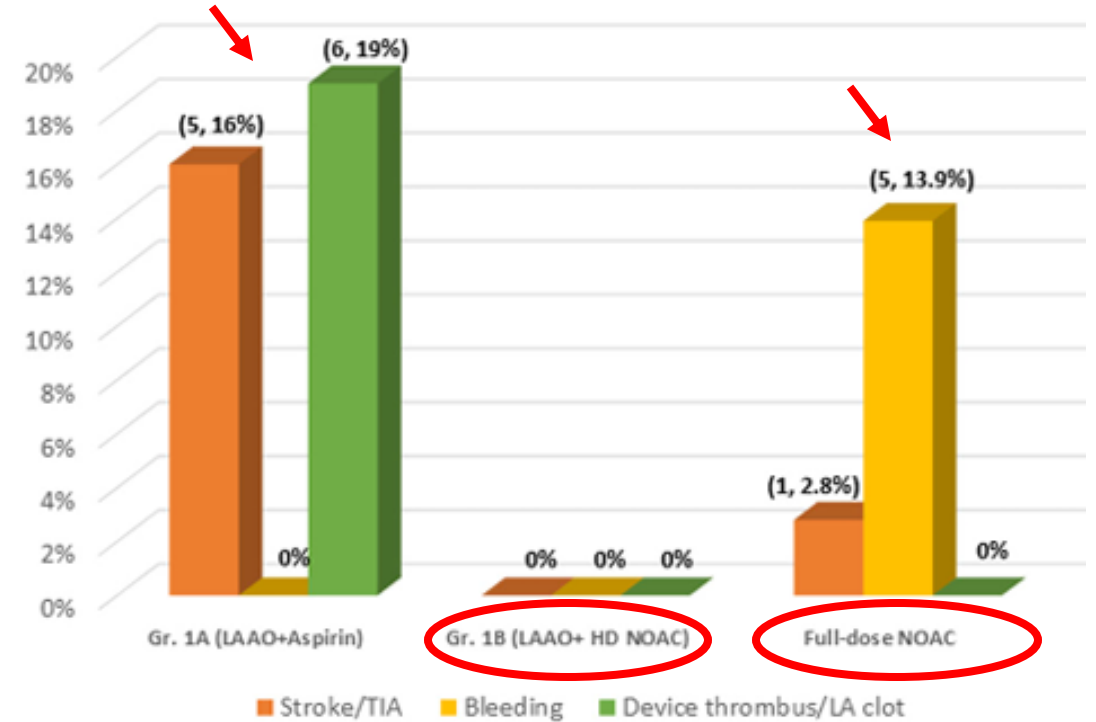
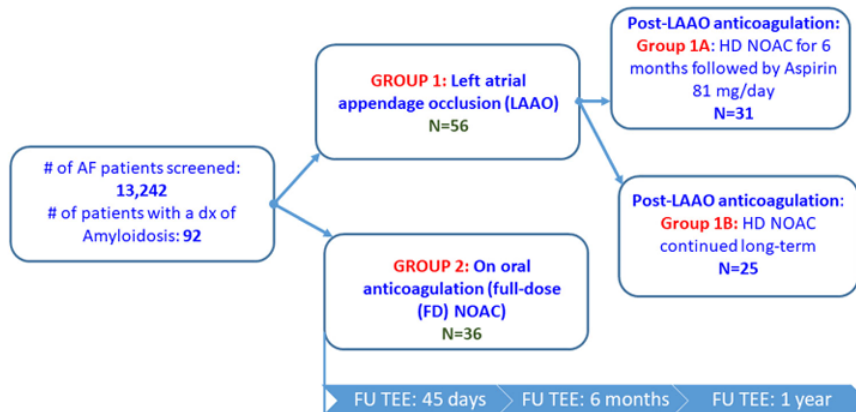
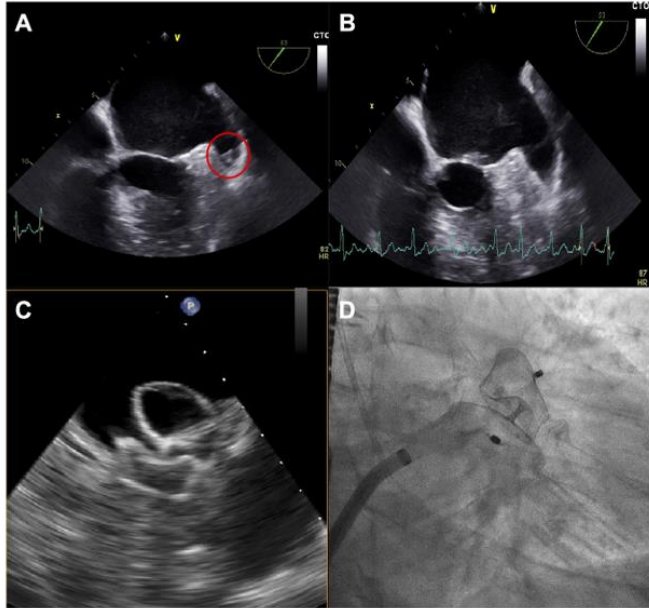


FIGURE 4 Bar diagram showing summary of thromboembolic and bleeding events reported during the 1-year follow-up.

Cardiac Amyloidosis Referral Center (Rare Disease Network)

Cardiologists Team

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Rythmologist: N Lellouche, T Moulin, K Ramoul, N Elbaz, S Rouffiac, V Ouazana

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Referral center secretariat: I Vallat
IDE amyloidosis coordination: S Maupou
Psychology: J Pompougnac



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Research assistant: Ani, Dilan, Saafa, Sarah, Benoît, Lola



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Neuromuscular disease: S Souvannanorath
Nephrology: V Audard, H Sakhi
Haematology: F Lemmonier, K Belhadj, J Dupuis, F Le Bras, R Gounot, M Van Den Akker
Internal medicine: M Michel
Hepatology: V Leroy, A Sessa
Geriatrics: A Broussier, N Liu, N Marie Nelly
Genetic: B Funalot, B Hébrard, C Nativelle
Rhumato : S Guignard
Orthopédie : O Pidet

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Sequencing: P Fanen, M Konyukh
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