

REAL WORLD DATA FROM PATIENTS WITH HFrEF SUBMITTED TO ATRIAL FIBRILLATION ABLATION

Mafalda Carrington (1), Joana Brito (2), Pedro Silvério António (2), Tiago Rodrigues(2), Rita Rocha (1), Afonso Nunes-Ferreira (2), Sara Couto-Pereira (2), Gustavo Lima da Silva (2), Nuno Cortez-Dias (2), Fausto J Pinto (2), João de Sousa (2)

(1) Serviço de Cardiologia do Hospital do Espírito Santo de Évora (2) Serviço de Cardiologia, Departamento de Coração e Vasos, Centro Hospitalar Universitário Lisboa Norte, Centro Cardiovascular da Universidade de Lisboa, Faculdade de Medicina, Universidade de Lisboa

INTRODUCTION

- **CASTLE-AF** trial showed that atrial fibrillation (AF) ablation impacts favorably the prognosis of selected patients with HFrEF
- **Ablation benefit** resulted mostly from the **reduction of AF burden** and it was present **even in patients in whom ablation was unable to eradicate the arrhythmia**.
- AF ablation is now a **valid option for rhythm control in patients with HF**

PURPOSE

To evaluate the **safety** and **efficacy of AF ablation** in patients with **HFrEF with EF<50%** in the context of structural heart disease (SHD)

METHODS

- **Retrospective single-center study**, inclusion of consecutive patients admitted for AF ablation, between 2004 and 2020
- **Groups compared: HFrEF defined as EF<50% and SHD versus normal EF**
- **Exclusion criteria:** previous tachy-cardiomyopathy who had their EF normalized prior to ablation
- **Outcome definition:**
 - Acute major complications :
 - stroke/TIA
 - clinically relevant bleeding events (hemopericardium and vascular access complications)
 - Arrhythmia-free survival up to 3-years after the procedure
 - Absence of AF, flutter or atrial tachycardia lasting over >30 secs during serial ambulatory monitoring

RESULTS

908 AF catheter ablation



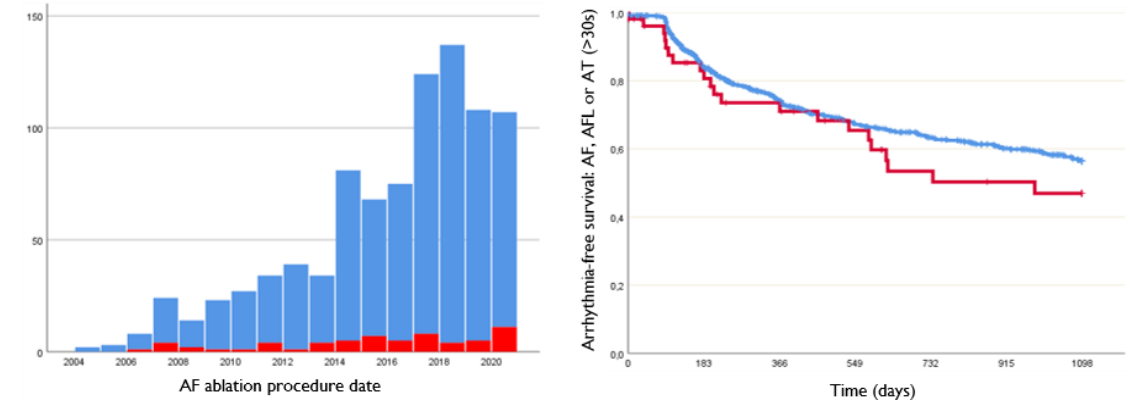
11 were excluded due to recovered tachy-CMP

63 (6,9%) HFrEF

Types of structural heart disease	N (%)
Ischaemic CMP	23 (36,5%)
Dilated CMP	20 (31,7%)
Valvular Heart Disease or prosthesis	19 (30,2%)
Congenital Heart Disease	1 (1,6%)

Safety of AF ablation procedure	HFrEF	Normal EF	OR (95% CI)	P-value
Acute major complications	6 (9,5%)	32 (3,8%)	2,67 (1,07-6,66)	0,035
Stroke/TIA	2 (3,2%)	4 (0,5%)	6,89 (1,24-38,39)	0,028
Pericardial tamponade/hemopericardium	2 (3,2%)	14 (1,7%)	-	NS
Major vascular complications	1 (1,6%)	12 (1,4%)	-	NS

Figure 1 – AF ablation procedure evolution (left) and long-term success (right)



■ AF and structural heart disease with EF<50%
■ AF and normal EF

CONCLUSIONS

- Currently, **AF ablation in selected patients with HFrEF** is more frequent than in the past, but it still **represents a small proportion** of patients undergoing this procedure.
- Although **acute major complications** after catheter ablation were **more frequent in patients with HFrEF** than in patients with normal EF, there was a **reasonable long-term benefit in terms of arrhythmia-free survival** at 3-years in this group.