

Comparing single-shot to point-by-point in atrial fibrillation ablation success

Caldeira da Rocha R.¹, Silvério António P.², Brito J.², Rodrigues Tiago², Bernardes A.², Silva G.², Cortez Dias N.², Carpinteiro L.², Pinto F.², de Sousa J.²

(1) Hospital do Espírito Santo de Évora; (2) Hospital de Santa Maria, Centro Hospitalar Lisboa Norte

Purpose: To evaluate AF initial ablation successfulness using single-shot techniques and compare them to the conventional procedure (point-by-point using irrigated- tip ablation catheter).

Methods: We analyzed, from a single center, all patients submitted to an index AF ablation procedure and its successfulness. The last was defined as AF, atrial tachycardia or flutter recurrence (with a duration superior to 30 seconds) event-free survival, determined by Holter and/or event recorder. These exams were performed at 6 and 12 months and then annually, until 5 years after the procedure.

Results: From November 2004 to November 2020, 821 patients were submitted to a first AF ablation (male patients 67.2% (N=552), mean age of 59±12years old). Patients distribution according to AF duration is represented in **fig. 1**. Ablation techniques were irrigated tip catheter PbP ablation and SS techniques (**Fig.2**). Globally, AF ablation had a one-year success rate of 72.5%, and 56.2% at 3 years. A significant difference between AF type was found: arrhythmic recurrence risk was 58% higher in PeAF (HR 1.58;95%CI 1,22-2,04; p<0.001). In patients presenting with PAF, success was significantly higher in those submitted to SS technique (HR:0.69;95%CI 0,47-0,90;p=0.046) (**Fig.3**).

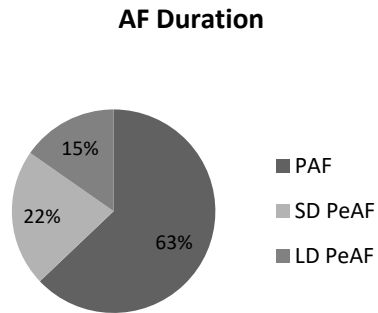


Fig.1- Patients division according to AF duration.

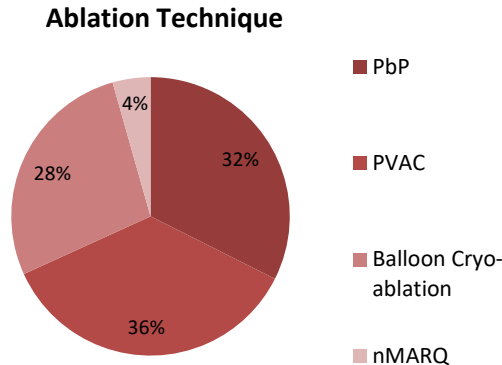


Fig.2- Performed AF ablation techniques.

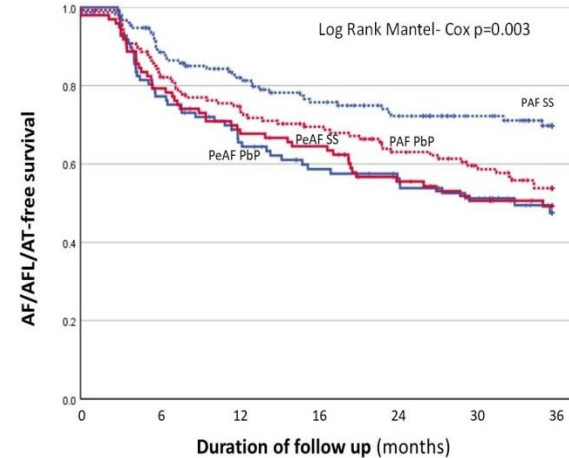


Fig.3 Event-Free Survival Curves

Conclusion: In this single center analysis almost three-quarters of AF patients had achieved one-year event-free survival, and more than a half reached long-term freedom from atrial arrhythmia. Patients with paroxysmal atrial fibrillation submitted to single-shot procedure had a higher success-rate. Moreover, our study confirmed previous data regarding a lower success rate in PeAF linking AF classification to the ablation outcome.