

Properly quantifying outcomes of AF Ablation - Is a 30-second recurrence an evidence-based endpoint?

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Abstract

Background: Although atrial fibrillation (AF) ablation is a well-established treatment, the classical definition of recurrence and therefore success is not evidence-based. Additionally, the frequency of asymptomatic patients whose episodes are not noticed on routine electrocardiogram (ECG) may compromise the actual success rate. Objectives: This study aimed to assess the characteristics of AF burden after atrial fibrillation ablation and its influence on patients' symptoms in the setting of continuous remote monitoring. It also sought to investigate a relevant cutoff as a new definition for recurrence. Methods: 141 consecutive patients with symptomatic paroxysmal or persistent AF underwent an AF ablation and then were followed by continuous rhythm monitoring. The AF/atrial tachycardia (AT) burden, duration of episodes and symptoms were registered systematically. Results: After the blanking period, freedom from AF/AT >30sec. was 59%. Considering an AF-Burden <1%, the success rate was 80%. The incidence of asymptomatic episodes in the group of patients with conventional recurrence was 24% (14/58) and 20% (8/41) when a cut-off of 1% of AF/AT burden was considered. Asymptomatic patients had an AF burden of $1.87 \pm 4.6\%$ during follow-up, compared to $4.0 \pm 7.2\%$ in symptomatic patients ($p=0.02$). There was no statistical difference between AF type (paroxysmal vs. persistent) and the frequency of asymptomatic episodes. Conclusions: Patients with asymptomatic AF Episodes represent a significant proportion after AF ablation. These patients could be easily overlooked without a proper monitoring technique. A burden cutoff of 1% and freedom from symptom should be considered as an ablation endpoint.

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