

Impact of age on catheter ablation of premature ventricular contractions

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Funding Acknowledgements: Type of funding sources: None.

Introduction: Catheter ablation (CA) of frequent premature ventricular contractions (PVC) is increasingly performed in older patients as the population ages.

Purpose: The purpose of this study was to assess the impact of age on procedural characteristics, safety and efficacy on PVC ablations.

Methods: Consecutive patients with symptomatic PVCs undergoing CA between 2015 and 2020 were evaluated. Acute ablation success was defined as the elimination of PVCs at the end of the procedure. Sustained success was defined as an elimination of symptoms, and $\geq 80\%$ reduction of PVC burden determined by Holter-ECG during long-term follow. Patients were sub-grouped based on age (< 65 years vs. ≥ 65 years).

Results: A total of 114 patients were enrolled (median age 64 years, 71% males) and followed up for a median duration of 228 days. Baseline and procedural data were similar in both age groups. A left-sided origin of PVCs was more frequently observed in the elderly patient group compared to younger patients (83% vs. 67%, $p = 0.04$, Figure 1). The median procedure time was significantly shorter in elderly patients (160 min vs. 193 min, $p = 0.02$). The rates of both acute (86% vs. 92%, $p = 0.32$) and sustained success (70% vs. 71%, $p = 0.90$) were similar between groups. Complications rates (3.7%) did not differ between the two groups.

Conclusion: In a large series of patients with a variety of underlying arrhythmia substrates, similar rates of acute procedural success, complications, and ventricular arrhythmia-free-survival were observed after CA of PVCs. Older age alone should not be a reason to withhold CA of PVCs.

Abstract Figure 1

