

Extended Pulmonary Vein Isolation: is it sufficient to achieve long-term sinus rhythm in octogenarian women with atrial fibrillation?

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Background: Atrial fibrillation (AF) is a disease of the elderly and women typically present with AF at an older age than men do. Moreover, they tend to experience more symptoms and post-ablation recurrences, have worse quality of life and increased risk of stroke and mortality.

Objective: We evaluated long-term efficacy of our standard ablation approach of extended pulmonary vein isolation (PVI) in octogenarian women undergoing their first AF ablation.

Methods: Consecutive female AF patients aged ≥ 80 years receiving their first catheter ablation at our center were included in the analysis. Our standard ablation approach at the first procedure includes PVI + empirical isolation of left atrial posterior wall (LAPW) and superior vena cava (SVC). Complete abolition of all potentials rather than decrease in amplitudes was the procedural end point. Patients were prospectively monitored at regular intervals for 3 years after the index procedure with event recorders, 12-lead ECG, cardiology evaluation at office visits and 7-day Holter monitoring.

Results: A total of 194 patients with mean age of 84.2 ± 1.4 years were in-

cluded in the analysis. Of the 194, 120 (61.8%) had non-paroxysmal AF. All received PVI+ isolation of LAPW and SVC. Acute procedural success was achieved in 100% of cases.

At 3 years of follow-up, 24 (12.4%) patients remained in sinus rhythm; 22 on- and 2 off-antiarrhythmic drugs (AAD). All of the 23 patients had paroxysmal AF as their initial diagnosis.

Of the 170 patients experiencing recurrence, 147 underwent repeat ablation. PV/PW/SVC reconnection was noted in only 6 (4.1%) patients at redo. Triggers originating from non-PV sites were targeted for ablation in all. At 1.5 years after the repeat procedure, 136 (92.5%) patients were in sinus rhythm; 131 off-AAD and 5 patients on-AAD.

Conclusion: Extended PVI including isolation of posterior wall and SVC was not sufficient to maintain long-term sinus rhythm in majority of octogenarian women, regardless of AF type. Moreover, non-PV triggers rather than PV reconnection was the major cause of recurrence in this subset of AF population.