

Isolation of the Left Atrial Appendage and Coronary Sinus for Treatment of Persistent AF: Long Term Results

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Isolation of the pulmonary veins (PVI) as a stand-alone procedure is associated with a high recurrence rate in pts with persistent AF (persAF). Extra PV lesions are usually performed in trying to improve rhythm control.

Evaluate the safety and efficacy of isolation of the left atrial appendage (LAA) and coronary sinus (CS) on top of antral PVI in pts with persAF.

12 pts (mean age 65 ± 12 years, 75% male) with recurrent AF after a first PVI + posterior wall isolation procedure underwent a redo procedure guided by 3D imaging and ICE.

The LAA was isolated using circumferential RF lesions (max power 35W), guided by a circular mapping catheter positioned at its ostium. The CS was isolated by a combination of endocardial and inside the CS RF lesions (distal to proximal, max power 30W). Esophageal temperature was monitored when ablating in the CS and RF was interrupted if > 39 degrees.

Isolation was proved by elimination of electrograms or by the presence of dissociated potentials.

Reisolation of the PVs or ablation of other inducible arrhythmias were performed when needed.

LAA isolation was achieved in 9/12 pts (75%), with intra-procedural reconnection in 4 pts (44%), up to 90 min after initial isolation. Reisolation was achieved with further RF lesions. One pt needed ablation in the distal CS to isolate the LAA.

CS isolation was obtained in 8/12 pts (67%), with acute reconnection in 3 pts (38%).

After 14 ± 2 months of follow-up, 8 pts (67%) were arrhythmia-free. All the recurrences were in atrial flutters or tachycardia in either LA or RA, all mapped and ablated. In those, the LAA wasn't initially isolated in 2 pts; in other 2 pts the LAA was reconnected.

No acute or long-term complication were observed in these series.

LAA and CS isolation can be safely performed in pts with persAF recurring after an initial PVI + posterior wall procedure and is associated with excellent long-term rhythm control.