








“Zero-Fluoro” Approach for the repeat pulmonary vein isolation procedures after initial cryoballoon ablation

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Introduction: The so called „zero fluoro“ or „apron less“ approach is getting more popular in the electrophysiology labs¹. The main concern of this strategy is its safety. We aimed to demonstrate the feasibility of zero-fluoro approach for the repeat atrial fibrillation (AF) procedures after initial cryoballoon ablation (CB).

Patients and Methods: We have performed a retrospective study on patients that have undergone repeat pulmonary vein isolation (PVI) procedures in our institution since we started the zero-fluoro program in 2020. All patients received CB ablation for the initial procedure. Procedures were performed under conscious sedation with the help of intracardiac echo (ICE) and 3D mapping system, without the use of fluoroscopy. Right-sided femoral vein was used for the two introducers. A single transseptal puncture was performed guided by ICE. Steerable sheath was used and high-density voltage map of left atrium (LA) was created to evaluate the pulmonary vein (PV) reconnections. Contact-sensing radiofrequency ablation (RF) ablation catheters were used to re-isolate the reconnected veins and in the case of no reconnections, posterior wall isolation was performed.

Results: We have analyzed in total 38 patients (74% male, 59.3±0.3 years old), 53% of which suffered from paroxysmal AF. The mean left ventricular ejection fraction was 61.6±7.0% and mean LA diameter was 42.0±5.2 mm. In two (5.2%) patients RF energy was required to cross the intraatrial septum. In one patient (2.7%) conversion to fluoroscopy was required because of demanding transseptal puncture. The mean procedure time was 98.1.3±26.4 min and the mean RF time was 821 sec±420 sec. The mean of 1.25±0.893 veins were reconnected per patient and 10 patients (26.3%) did not have PV reconnections. In all patients successful PV/PW isolation was performed confirmed by entry and exit block. No periprocedural complications were observed.

Conclusion: In our cohort of patients, zero-fluoro approach for repeat PVI procedures ablation proved to be feasible and safe. Conversion to fluoroscopy was needed infrequently for more difficult transseptal procedures.

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LITERATURE

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