




Short term results after pulmonary vein isolation with pulsed field ablation in patients with atrial fibrillation

 Zvonimir Katić*,
 Matija Mlinar,
 Domagoj Kardum

University Hospital Centre
Zagreb, Croatia

KEYWORDS: atrial fibrillation, ablation, pulmonary vein isolation.

CITATION: *Cardiol Croat.* 2026;21(1-2):28. | <https://doi.org/10.15836/ccar2026.28>

***ADDRESS FOR CORRESPONDENCE:** Zvonimir Katić, Klinički bolnički centar Zagreb, Kišpatićeva 12, HR-10000 Zagreb, Croatia. / Phone: +385-95-8637-199 / E-mail: katiczvone3@gmail.com

ORCID: Zvonimir Katić, <https://orcid.org/0000-0002-0493-3188> • Matija Mlinar, <https://orcid.org/0000-0002-0212-7924>
Domagoj Kardum, <https://orcid.org/0000-0001-5202-4061>

|||||

Atrial fibrillation (AF) is the most prevalent cardiac arrhythmia, significantly affecting healthcare services¹. Pulmonary vein isolation (PVI) has emerged as the standard treatment for AF, with radiofrequency energy historically being the primary method employed. The second most common ablation technique has been cryoenergy, particularly using cryoballoon (CB) technology, which has demonstrated superiority over drug therapy in patients with paroxysmal atrial fibrillation (PAF)². Lately new energy source for PVI emerged. Pulsed field ablation (PFA) became very popular as a single shot method which is cardioselective (all tissue around heart is safe from damage such as the phrenic nerve and esophagus). As a very experienced center with single shot PVI method since introduction of PFA we performed more than 250 procedures. In the mixed paroxysmal and persistent population, up to 73.8% of patients remained free of AF recurrence in the 5-year follow-up, when accounting for redo procedures and AADs. Only 2.4% of patients experienced major complications of the ablation procedure, none with permanent sequelae. Now we have only short term follow up for patients with AF after PFA but results are promising. From 115 patients treated with PFA only 8 had recurrence of AF 6 months from first procedure.

RECEIVED:
October 21, 2025

ACCEPTED:
November 14, 2025



LITERATURE

- |||||
1. Andrade JG, Wazni OM, Kuniss M, Hawkins NM, Deyell MW, Chierchia GB, et al. Cryoballoon Ablation as Initial Treatment for Atrial Fibrillation: JACC State-of-the-Art Review. *J Am Coll Cardiol.* 2021 Aug 31;78(9):914-930. <https://doi.org/10.1016/j.jacc.2021.06.038>
 2. Kuniss M, Pavlovic N, Velagic V, Hermida JS, Healey S, Arena G, et al; Cryo-FIRST Investigators. Cryoballoon ablation vs. antiarrhythmic drugs: first-line therapy for patients with paroxysmal atrial fibrillation. *Europace.* 2021 Jul 18;23(7):1033-1041. <https://doi.org/10.1093/europace/euab029>