








Treatment of atrial fibrillation with cryoablation and radiofrequent ablation - Dubrava University Hospital experience

 **Josip Varvodić***,
 **Gloria Šestan,**
 **Davor Barić,**
 **Daniel Unić,**
 **Marko Kušurin,**
 **Nikola Slišković,**
 **Igor Rudež**

Dubrava University Hospital,
Zagreb, Croatia

KEYWORDS: atrial fibrillation, cryoablation, radiofrequency ablation.

CITATION: *Cardiol Croat.* 2024;19(11-12):411. | <https://doi.org/10.15836/ccar2024.411>

***ADDRESS FOR CORRESPONDENCE:** Josip Varvodić, Klinička bolnica Dubrava, Avenija Gojka Šuška 6, HR-10000 Zagreb, Croatia. / Phone: +385-99-3553-909 / E-mail: josip.varvodic@gmail.com

ORCID: Josip Varvodić, <https://orcid.org/0000-0001-6602-699x> • Gloria Šestan, <https://orcid.org/0000-0002-6245-5508>
Davor Barić, <https://orcid.org/0000-0001-5955-0275> • Daniel Unić, <https://orcid.org/0000-0003-2740-4067>
Marko Kušurin, <https://orcid.org/0000-0001-5690-9924> • Nikola Slišković, <https://orcid.org/0000-0002-9796-736x>
Igor Rudež, <https://orcid.org/0000-0002-7735-6721>

Introduction: Atrial fibrillation (AF) is a common heart arrhythmia with a high prevalence and a growing number of cases globally. The global prevalence of AF is estimated to be around 60 million cases. The lifetime risk of developing AF is about 1 in 3–5 people after age 45. AF contributes to more than 8 million disability-adjusted life years. By 2050, the number of cases is expected to increase by 60%.¹

Patients and Methods: In our hospital we have performed 78 procedures since 2003. Formerly only radiofrequency ablation was performed. Program was reinitiated in October 2022. We have performed ablation in 31 patients until April 2024. These results will be presented in this abstract. 20 patients had chronic AF, and 11 patients paroxysmal AF. 65% of patients were male, with average age of 68 years. Average size of left atrium was 5 cm, and average duration of AF was 1.8 years.

Results: We used AtriCure Cryoice cryoablation probe, and RF Isolator Long Synergy Clamp. 19 patients had contaminant mitral valve surgery, and cryo ablation was done in all of those patients with biatrial full lesion set. 12 patients had non mitral valve surgery (3 CABG, 3 AVR, 3 AVR+CABG, 1 AVR+aorta, 1 TVR) and radio frequent ablation was performed. All patients had LAA excluded. Every patient was administered amiodarone on day of surgery (1200 mg), followed by 200 mg orally daily. NOAC/Warfarin was continued until rhythmologist control visit after three months. 80% of patients were in synus rhythm at three months follow up. Patients remaining in AF were predominantly males with long lasting AF (more than 2.3 years).

Conclusion: Atrial fibrillation presents a growing health issues and with new guidelines recommendations, having a surgical ablation program is mandatory. We have shown that the program in our institution is in line with results of all other world expert centres.

RECEIVED:
October 13, 2024

ACCEPTED:
October 31, 2024



LITERATURE

1. Van Gelder IC, Rienstra M, Bunting KV, Casado-Arroyo R, Caso V, Crijns HJGM, et al; ESC Scientific Document Group. 2024 ESC Guidelines for the management of atrial fibrillation developed in collaboration with the European Association for Cardio-Thoracic Surgery (EACTS). *Eur Heart J.* 2024 Sep 29;45(36):3314-3414. <https://doi.org/10.1093/eurheartj/ehae176>