

Invasive treatment of patients with atrial fibrillation and high risk of bleeding

 **Matija Mlinar***,
 **Zvonimir Katić,**

University Hospital Centre
Zagreb, Zagreb, Croatia

KEYWORDS: atrial fibrillation, pulmonary vein isolation, left atrial appendage occluder.

CITATION: *Cardiol Croat.* 2022;17(9-10):309. | <https://doi.org/10.15836/ccar2022.309>

***ADDRESS FOR CORRESPONDENCE:** Matija Mlinar, Klinički bolnički centar Zagreb, Kišpatičeva 12, HR-10000 Zagreb, Croatia. / Phone: +385-98-9874-228 / E-mail: matija_mlinar@hotmail.com

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

Introduction: Atrial fibrillation (AF) is the most common long-term cardiac arrhythmia found in a wide population of people, and is closely associated with an increased risk of death, stroke and other thromboembolic incidents.¹ Based on the symptoms and duration of AF, physicians choose a treatment strategy, which can be a frequency control strategy or a rhythm control strategy.² Likewise, in patients with AF, it is necessary to choose the correct anticoagulation therapy. The guidelines emphasize the assessment of risk factors for a thromboembolic event using the CHA₂DS₂-VASc score. Also, the risk of bleeding should be considered, and for this purpose the HAS-BLED scoring system is used. In the patient whose case we have described, in addition to cryoablation of the pulmonary veins, an occluder of the left atrial appendage (LAAO) was placed in the same act.

Case report: 72-year-old female patient with known arterial hypertension, bronchial asthma, osteoporosis, and hyperlipidemia comes to the Emergency Department in February 2021 due to shortness of breath and a subjective feeling of rapid heartbeat that she has been experiencing for the last 10 days. The patient is admitted to the Cardiology Department, where an electrocardiographic recording of atrial flutter as well as short bursts of AF is recorded. The patient underwent a transthoracic and transesophageal echocardiography, which ruled out the existence of a thrombus in the auricle of the left atrium. As the atrial flutter persists, a successful electrocardioversion was performed in the Cardiology Department. Ablation of the cava tricuspid isthmus was performed in the Electrophysiological Laboratory. The patient is discharged home the next day in sinus rhythm with anticoagulation therapy (DOAC) administered, with the obligation to monitor the occurrence of FA episodes. In the September 2021 the patient is again admitted due to the appearance of paroxysms of arrhythmia and again comes to the Electrophysiology Laboratory, where it is confirmed that the CTI block persists after the first ablation. After the "atrial burst", a clear FA is obtained, which occasionally organizes into an atrial flutter, and as it persists, a DC conversion to a sinus rhythm occurs. Given that the patient had 2 episodes of gastrointestinal bleeding (rectoragia) and a drop in full blood count with optimal doses of anticoagulant therapy, she was offered the possibility of LAA occluder placement, which she accepted. No bleeding factors other than anticoagulant therapy were found. At the end of December 2021, the combined procedure of CryoPVI and LAA occluder installation is performed on the patients under general anesthesia and under TEE supervision. During the Cryo procedure, all 4 pulmonary veins are isolated in real time, and after the measurements, the "Amplatzer Amulet 28mm" device is properly positioned in the appendage.

Conclusion: The point of this case report was to show how a combination of several invasive treatment procedures can achieve greater benefits for patients and therefore avoid the need for more hospitalizations and potential complications. It should be emphasized the importance of teamwork, which leads to great benefits in the invasive treatment of patients.

RECEIVED:
November 4, 2022

ACCEPTED:
November 10, 2022



LITERATURE

1. Lovrić Benčić, M. Fibrilacija atrija - najčešća postojana aritmija. *Medicus*, 2016;25(2 Kardilogija danas);167-76.
2. Sagrais M, Vardas EP, Theofilis P, Antonopoulos AS, Oikonomou E, Tousoulis D. Atrial Fibrillation: Pathogenesis, Predisposing Factors, and Genetics. *Int J Mol Sci.* 2021 Dec 21;23(1):6. <https://doi.org/10.3390/ijms23010006>