

3rd Global Summit on **CARDIOLOGY AND CARDIAC SURGERY**

September 16, 2024 | Webinar

Predictors of higher frequency of atrial fibrillation in patients with cardiac resynchronization therapy**Aleksandra Grbovic***Dedinje Cardiovascular Institute, Serbia*

Objective: Cardiac resynchronization therapy (CRT) is one of the effective therapeutic options in the treatment of systolic heart failure (HF) with persistent symptoms. This prospective study was designed to determine whether CRT with biventricular pacing would reduce the risk of development of atrial fibrillation (AF) and to identify predictors for AF occurrence. The study population consisted of 126 patients, with a mean age of 63.8 ± 9.1 years. Lead position—AF more frequent with poster lateral in comparison with lateral CS lead position ($B = 5.159$; $p = 0.005$). The results of our study provide new data on AF predictors in patients with HF subjected to CRT. There remains a permanent need for new predictors, which might help in patient selection and improvement in response rate.

Methods and Materials: Based on the latest research literature and clinical trial data, this review analyzes the mechanisms of action, clinical advancements, and potential benefits of potassium channel modulators in treating arrhythmias. Special attention is given to the relationship between potassium channel dysfunction and arrhythmias, as well as the development of novel potassium channel modulators.

Result: A total of 126 patients were enrolled in the study. Three patients prematurely ceased participation in the study due to lethal outcome after 3, 5, and 8 months from CRT implantation. The baseline characteristics of study participants are presented in Table 1. The average age of the study population was 63.8 ± 9.1 years (range 32–83 years). More than three quarters (77.8%) of the study participants were male.

Conclusion: The results of our study provide new data on AF predictors in patients with HF subjected to CRT. Due to lack of studies on CRT recruiting patients with AF, there is a demand for new studies with bigger sample sizes to identify new predictors. Studies on genes and genetic variations making patients more prone to AF in HF would be of particular interest. By identifying patients more prone to AF prior to CRT implantation, it would be possible to gain maximum benefit from CRT, a treatment that has thus far offered significant improvement in the management of patients with HF.

Biography

Dr. Aleksandra Grbovic is a highly regarded researcher and clinician at Dedinje Cardiovascular Institute in Serbia, specializing in advanced cardiac care and electrophysiology. With a focus on atrial fibrillation (AF) in patients undergoing cardiac resynchronization therapy (CRT), Dr. Grbović has contributed significantly to understanding AF predictors, aiming to enhance patient outcomes and therapeutic strategies. Her recent work, "Predictors of Higher Frequency of Atrial Fibrillation in Patients with Cardiac Resynchronization Therapy," sheds light on critical factors that influence AF occurrence, a key concern for effective CRT.