

**PROGNOSTIC SIGNIFICANCE OF VENTRICULAR ECTOPIC ACTIVITY
FOR CARDIOVASCULAR MORTALITY IN PATIENTS WITH ATRIAL
FIBRILLATION**

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Atrial fibrillation (AF) and ventricular ectopic activity (VEA) are pathological conditions that frequently coexist and significantly increase the risk of cardiovascular mortality. Early identification of patients with a high risk of cardiovascular (CV) death among this population remains one of the most important challenges in contemporary cardiology.

To evaluate the prognostic significance of ventricular ectopic activity in predicting cardiovascular mortality in patients with atrial fibrillation.

A total of 196 patients with different forms of atrial fibrillation who attended the outpatient consultative department of the Republican Specialized Scientific and Practical Medical Center of Cardiology were included in the study. Among them, 50% were men, and 18 % had valvular AF. The mean age of the study population was 66.08 ± 10.02 years.

At initial assessment, clinical characteristics and medical history were recorded, and treatment was adjusted according to the 2024 ESC guidelines. The primary endpoint was all-cause mortality, including cardiovascular deaths. Follow-up was conducted every 3–6 months by telephone or outpatient visits. In cases of death, information was obtained from relatives, while the cause was determined from medical records and witness reports. Statistical analysis was performed using STATISTICA 13, with $p < 0.05$ considered statistically significant.

The patients were divided into two groups. Group 1 consisted of 88 patients with Lown class 0-I ventricular ectopy, which was considered relatively benign. Group 2 included 108 patients with life-threatening ventricular extrasystoles (LTVE), defined in this study as ventricular ectopy classified as Lown class III or higher. No statistically significant differences were observed between the two groups regarding age, sex, anthropometric parameters, CHA₂DS₂-VASc score, or HAS-BLED score ($p > 0.05$). The prevalence of paroxysmal AF was significantly lower in the LTVE group than in the comparison group (23.1% vs. 51.3%, $p < 0.001$). Conversely, permanent AF was significantly more prevalent in the LTVE group than in the comparison group (54.6% vs. 34.1%, $p < 0.001$). Analysis of comorbidities demonstrated that post-infarction cardiosclerosis was significantly more common in the LTVE group than in the comparison group (25% vs. 8.0%, respectively; $\chi^2 = 8.367$; $p < 0.004$). The overall mortality rate in the LTVE group was 10.2% (11 patients), compared with 1.1% in the comparison group, and this difference was statistically significant ($\chi^2 = 6.908$; $p < 0.009$). Cardiovascular mortality also differed significantly between the groups (7.4% vs. 0%; $\chi^2 = 6.796$; $p < 0.010$). Furthermore, 75% of patients in the LTVE group who reached the study endpoint were found to have Lown class IVB ventricular extrasystoles.

In patients with atrial fibrillation, high-grade ventricular extrasystoles were significantly associated with the permanent form of AF and post-infarction cardiosclerosis. Patients with LTVE demonstrated significantly higher rates of both all-cause and cardiovascular mortality. Lown class IVB ventricular extrasystoles were identified in 75% of patients in the LTVE group who reached the study endpoint, suggesting that this arrhythmia may serve as a marker of adverse clinical outcomes.