MANAGEMENT STRATEGY FOR ATRIAL FIBRILLATION IN PATIENTS AFTER MYOCARDIAL INFARCTION

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Objective

To investigate the clinical characteristics of atrial fibrillation developing after acute myocardial infarction in hospitalized patients, to evaluate its association with age, sex, and infarct localization, and to optimize treatment strategies.

Keywords: acute myocardial infarction, atrial fibrillation, ischemic heart disease, arrhythmia, heart failture, antiarrhythmic therapy.

Materials and Methods

This study included 58 consecutive patients diagnosed with acute Q-wave myocardial infarction who were hospitalized at the Republican Specialized Scientific and Practical Medical Center of Cardiology. The mean age of the study population was 61.8 ± 8.4 years. Patients were divided into two groups: the control group comprised 21 patients (36.2%) without atrial fibrillation, whereas the study group included 37 patients (63.8%) who developed AF following myocardial infarction. All participants underwent standard 12-lead electrocardiography, transthoracic echocardiography, and biochemical laboratory investigations. Thromboembolic risk was assessed using the

CHA_2DS_2-VASc score.

Results

The majority of patients who developed atrial fibrillation were men aged over 60 years, with the highest prevalence observed in the 60–70-year age group. According to infarct localization, AF occurred most frequently in patients with anterior wall myocardial infarction (42%), followed by inferior wall infarction (28%) and lateral wall infarction (18%). Patients with post-infarction AF demonstrated reduced left ventricular ejection fraction, more pronounced manifestations of heart failure, and prolonged hospitalization compared with patients without AF.

In hemodynamically unstable patients, synchronized electrical cardioversion proved highly effective in restoring sinus rhythm. In hemodynamically stable patients, pharmacological treatment based on β-blockers and amiodarone provided satisfactory rate and rhythm control. Patients with a high CHA_2DS_2-VASc score benefited from the early initiation of anticoagulant therapy, which may reduce the risk of thromboembolic complications.

Conclusions

Post-infarction atrial fibrillation occurs predominantly in men older than 60 years, with anterior wall myocardial infarction representing one of the major risk factors for its development. The choice of treatment should primarily be guided by the patient's hemodynamic status. Immediate synchronized electrical cardioversion is recommended for hemodynamically unstable patients, whereas pharmacological rhythm or rate control is appropriate for stable patients. Early initiation of anticoagulant therapy in individuals at high thromboembolic risk, as determined by the CHA_2DS_2-VASc score, is essential for preventing stroke and systemic embolic events.

Early recognition and comprehensive management of atrial fibrillation after myocardial infarction can improve patients' quality of life and reduce cardiovascular morbidity and mortality.

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