

EVALUATION OF THE EFFECTIVENESS OF ENDOVASCULAR INTERVENTIONS IN PATIENTS WITH ACUTE CORONARY SYNDROME.

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Introduction: The evaluation of the effectiveness of endovascular interventions in patients with acute coronary syndrome (ACS) is a key aspect of modern cardiology. It is based on clinical observation data, instrumental studies, and patient outcomes. The aim of this study was to assess the effectiveness of various endovascular interventions (EVI) in patients with acute coronary syndrome (ACS).

Materials and Methods: Endovascular interventions (EVI) on coronary arteries (CA) were performed in 53 patients with ACS, including 41 patients with unstable angina (UA) and 12 patients with non-Q wave myocardial infarction (MI), aged 42 to 74 years (mean age 54 ± 7.9 years). Emergency EVI was performed for all patients with MI, as well as for 3 patients with UA.

A left ventricular ejection fraction greater than 50% was observed in 35 (66.0%) patients, 41–50% in 13 (24.5%), and less than 40% in 5 (9.4%) patients.

A good angiographic result was defined as the restoration of CA lumen with residual stenosis of less than 20%. Clinically, a good result was defined as stabilization of the patient's condition, absence of angina, and increased tolerance to physical activity.

Results: During coronary angiography, among the 41 patients with UA, single-vessel coronary artery (CA) disease was identified in 24 patients (58.5%), while multivessel disease was found in 17 patients (41.5%). Coronary artery occlusions were observed in 12 patients (29.3%), and critical stenoses on the verge of occlusion were noted in 29 patients (70.7%).

Balloon angioplasty (BA) without stenting of a single CA was performed in 4 patients (9.8%), and of two vessels in 2 patients (4.9%). Stenting of CA was carried out in 35 patients (85.4%), including stenting of a single artery in 20 patients (48.8%) and two arteries in 8 patients (19.5%). In 7 patients (17.1%) with multivessel disease, BA of a second affected vessel was performed alongside stenting of one artery.

Direct stenting was undertaken in 8 patients (19.5%), including stenting of the left main coronary artery in 1 patient, the left anterior descending artery (LAD) in 5 patients, and the right coronary artery (RCA) in 2 patients.

Recanalization of occlusions followed by BA and stenting was performed in 12 patients (29.3%) with early post-infarction angina, including the LAD in 9 cases (75.0%) and the RCA in 3 cases (25.0%).

In the group of patients with non-Q wave MI, critical stenosis on the verge of occlusion in the LAD was identified in 3 patients, LAD occlusion in 7 patients, and RCA occlusion in 2 patients. Patients with critical LAD stenosis underwent BA and stenting.

In patients with occlusive CA lesions, attempts at recanalization followed by BA and stenting were successful in 11 cases. In one case, recanalization of the occluded artery was unsuccessful in a patient with recurrent MI.

No serious complications were observed during CA EVI procedures. Moderate hematoma at the femoral artery puncture site occurred in 3 patients (7.3%), which did not require specific treatment. There were no fatal cases.

In 52 patients (98.1%), the results of EVI were successful, with the disappearance of chest pain, stabilization of the clinical condition, and improvements noted on the ECG.

Discussion: Thus, the primary goal of endovascular intervention is the restoration of coronary blood flow, reduction of myocardial damage, improvement of prognosis, and minimization of complications. The clinical criteria for effectiveness included the resolution of ischemia and improvement in hemodynamic parameters.

Conclusion: Endovascular interventions in patients with ACS are a highly effective treatment method that allows for stabilization of the patient's condition and, in most cases, prevention or reversal of myocardial infarction progression.

Reference:

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