

DOI: 10.5281/zenodo.3685644
UDC: 616.132.2-007.272:615.273.53



Combined therapeutic approach in acute coronary syndrome patients under environmentally unfriendly working conditions

*¹Mamedgasan Agaev, ²Tarana Agaeva

¹Department of Cardiology, Azerbaijan Medical University, Baku, Azerbaijan

²D. M. Abdulaev Institute of Cardiology, Baku, Azerbaijan

Authors' ORCID iDs, academic degrees and contributions are available at the end of the article

*Corresponding author: dante.karelian@mail.ru

Manuscript received January 19, 2020; revised manuscript February 27, 2020; published online March 10, 2020

Abstract

Background: The purpose of this study was to assess the effectiveness of the combined use of high doses of heparin, propranolol and monopril with percutaneous coronary intervention (PCI) on eco-endotoxemia, systolic blood pressure, diastolic blood pressure, heart rate (HR), cardiodynamics and on the clinical course in acute myocardial infarction (AMI) among patients working in environmentally unfriendly conditions.

Material and methods: The study was conducted on 42 patients, aged 30 to 70 years (56.7 ± 1.20 years) with acute coronary syndrome (ACS), who were assessed for the anterior Q wave MI and ST segment elevation MI. Of 42 patients, 21 were treated with monopril, propranolol with heparin and PCI (group 1); and 21 patients underwent only PCI (group 2). The degree of eco-endotoxemia in blood was studied in both groups, whereas the echocardiography and Doppler echocardiography were used to determine the end-systolic volume (ESV), end-diastolic volume (EDV), left ventricular ejection fraction (LV EF), local LV contractile dysfunction, local contractile dysfunction index (LCDI), restenosis via a repeated coronary angiography, echographic study of ST segment elevation and of repeated anginal pain.

Results: Patients treated with monopril with propranolol and heparin with PCI exhibited a stabilization of central hemodynamic indices, by a decrease in ESV, EDV, LCDI, and the degree of eco-endotoxemia, as well as an improvement of LV systolic function by an increased EF. However, one patient from this group had an acute heart failure (AHF) on the 3rd day, whereas one patient experienced a MI relapse. The group of patients who underwent only PCI, revealed 3 cases of MI recurrence, 3 cases of restenosis, 2 cases of AHF and 2 patients died.

Conclusions: The combined use of drug and PCI therapy in acute coronary syndrome might lead to positive prognostic outcomes, rather than a separate PCI approach.

Key words: ecology, acute coronary syndrome, hemodynamics, percutaneous coronary intervention.

Cite this article

Agaev M, Agaeva T. Combined therapeutic approach in acute coronary syndrome patients under environmentally unfriendly working conditions. *Mold Med J.* 2020;63(1):8-12. doi: 10.5281/zenodo.3685644.