*Borzova-Kosse S., Rozymuradova L., Mamedov K., Mohamad S.*

**THE INFLUENCE OF ZOFENOPRIL IN COMBINATION WITH**

**SPIRONOLACTONE ON THE MORPHO-FUNCTIONAL STATE OF THE**

**MYOCARDIUM IN PATIENTS AFTER A MYOCARDIAL INFARCTION IN**

**THE PRESENCE OF OBESITY**

Kharkiv national medical university

Department of Internal Medicine No. 2, Clinical Immunology and Allergology named of Academic

L.T. Malaya

Kharkiv, Ukraine

*Research advisor: prof. Kravchun P.G.*

**Introduction.** Acute myocardial infarction (AMI) remains the leading cause of death from

cardiovascular disease in the world. One of the risk factors for developing coronary heart disease

(CHD) associated with the risk of AMI is obesity.

Aim – to study the effectiveness of treatment with ACE-inhibitors (zofenopril vise versa enalapril) in

combination with spironolacton after a myocardial infarction in patients with low ejection fraction

and obesity of the abdominal type on the parameters of themorphofunctional state of themyocardium.

**Materials and methods.** 51 patients with AMI and obesity of abdominal type were screened, which

were divided into groups, depending on the therapeutic approaches. Patients who participated in the

research signed an informed consent to participate in it. The exclusion criteria are patients with

diabetes mellitus, cancer, patients with acute cerebrovascular disease, connective tissue diseases.

Patients who participated in the study performed an echocardiographic examination performed on

Ultima PRO 30 (RADMIR, Ukraine). By the standard methods, in the B-mode, the end-systolic

volume (ESV) of the LV, end-diastolic volume (EDV) of the LV and the FV were determined. Left

atrium diameter (LA), End-diastolic diameter (EDD), end-systolic volume (EDV) diameter, thickness

of posterior wall of LV (PWT) was measured in M-mode.

Statistical processing of the received data was carried out using the package of statistical programs

"Microsoft Excel". The data is presented in the form of averages and average errors. The statistical

significance of different averages was determined by the F-Fisher criterion. The analysis of

interconnections was carried out using the Spirman correlation (r).

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To assess the therapeutic effect of standard therapy, patients with AMI and obesity were divided into

2 groups. 1st group received zofinopril (n=26), 2nd group - enalapril (n=25) in accordance with the

ESC guidelines for STEMI (2017). All patients involved in the study were hospitalized with AMI,

followed by ST segment elevation (STEMI). All patients received thrombolytic therapy as a

reperfusion option using streptokinase 1.5 million IU. Patients with primary percutaneous

intervension were not involved (exclusion criteria). The following up period lasts 6months after AMI.

Standard therapy includes a mineralocorticoid receptor antagonist, spironolactone (dose 25-50

mg/day), taking into account the fact that 100% of patients had systolic dysfunction (EF<40%).

**Results.** Patients with AMI and obesity who were included in group 1 showed a significant decrease

in the volume of LA by 7.6% (p<0.05), the levels of EDV were 19.3 (p<0.05), ESV by 16.3%

(p<0.05). According to the EF parameter, which is reflecting contractile ability, significant

differences were identified on the background of standard treatment with the use of zofenopril in the

form of increasing of this parameter by 12.65% (p<0.05). Indicators of the EDD, ESD did not reveal

any peculiar differences (p<0.05). Similar results were obtained by PWT parameters, which did not

significantly differ in the dynamics of treatment of patients with AMI and obesity from baseline

values (p<0.05).

**Conclusion.** The use of the combination of zofinopril and compared with the combination of enalapril

and spironolactone contributes to a more pronounced correction of changes in the morphofunctional

parameters of the left ventricle with a decreasing left atrium and left ventricle volumes with a

increasing the contractile capacity of the left ventricle myocardium by 12.65 % during 6 months after

acute myocardial infarction despite the presence of abdominal type of obesity.