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EFFICIENCY OF EARLY CARDIAC REHABILITATION IN MYOCARDIAL INFARCTION PATIENTS WITH NON ST ELEVATION

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Introduction. In 54 European society of cardiology (ESC) member countries there were 19.9 million new cases of cardiovascular disease (CVD). Ischaemic heart disease (IHD) was the most common manifestation of CVD with 3.6 million new cases and 34.9 million people living with IHD. IHD and cerebrovascular disease are the most common causes of cardiovascular death and IHD accounts for 1.67 million deaths corresponding to 17% and 18% of all deaths in men and women, respectively. Two-thirds (66%) of the participants (men 63%; women 73%) in EUROASPIRE V were not achieving the defined physical activity target. 19% were smokers at the time of the interview and 55% of the interviewed were persistent smokers. Out of 46% advised to participate in a cardiac rehabilitation programme 69% attended at least half of the sessions. One-third (35%) reported "performing planned physical activity to increase physical fitness", but only 16% performed vigorous activities more than 20 min at least 3 times a week.

The aim of the study. Evaluate efficiency of early cardiac rehabilitation in patients with non ST elevation myocardial infarction.

Material and methods. 210 patients with nonST elevation myocardial infarction (NSTEMI) were treated at the Chernivtsi Regional Cardiology Center. The average length of staying in inpatient treatment was 14 days. Aged 38 to 65 years old, whose average age was 51.2±2.7 years. 48 with a provided PCI and 162 no PCI. Compared to patients without PCI, patients with PCI were significantly younger (56.5 vs. 62.4 years, $P<0.001$) and less likely to have diabetes, hypertension or any other risk factor (except smoking). It is optimally to start phase II of CR in the second week after discharge from the hospital.

Results. Comparison of cardiovascular risk factors in groups after rehabilitation. The indicators of patients in the rehabilitation group significantly improved in both groups in 12 months of rehabilitation ($p<0.05$). A higher outcome in the NSTEMI group with PCI is closely related to CR and adherence to treatment. A slight intensity of exercise in CR was sufficient to reduce cardiovascular risk factors. There were no significant differences in baseline characteristics including age, gender, body mass index, smoking, diabetes, hypertension, lipid profile, statin use, and complete blood count between the two groups. Maximal oxygen consumption (VO2max) improved significantly, especially in the group with 12 months ($p<0.001$). 18 patients underwent repeated CVG in 9-12 months. Late lumen loss, defined as the difference between the minimum lumen diameter (MLD) immediately after stenting and the MLD at 6-to 8-month follow-up. Rates of all-cause mortality, rehospitalization for cardiovascular and cerebrovascular events, and intensive care unit hospitalization were significantly lower in CR participants than in nonparticipants. Relative risks were 0.76 (95% CI 0.60–0.95), 0.78 (95% CI 0.65–0.94) and 0.80 (95% CI 0.70–0.91) in accordance. Overall, 44% and 51% of patients were considered adherent to polytherapy at 6 and 12 months of follow-up.

Conclusions. There is a connection between cardiac rehabilitation and clinical outcomes of patients with acute MI. Participation in the rehabilitation program: is associated with a reduced risk of all-cause mortality, rehospitalization due to cardiovascular and cerebrovascular events, and emergency department admissions during long-term follow-up patients with NSTEMI who did not undergo PCI; is associated with significantly improved adherence to evidence-based therapy at both 6- and 12-month follow-up among patients with AMI who did not receive PCI at the time of hospitalization. Patients with AMI should be referred to a rehabilitation program as soon as possible after the acute event, especially for those who have not received PCI. CR reduces the frequency of in-stent restenosis in patients with AMI who underwent PCI. The advantage of CR was determined, even in an unfavorable context, that confirmed the recommendations of clinical practice, which considered CR as an integral part of the treatment of CAD.