

THE ROLE OF POST-INFARCTION ANGINA IN ASSESSING THE PROGNOSIS OF A PATIENT'S OUTCOME AFTER MYOCARDIAL INFARCTION

Otaxonov A.G., Shamsiddinova A.S., Khojamberdiev M.A.

Andijan State Medical Institute

Annotation: Recently, research attention consumers are increasingly attracted by opportunities adaptation of the myocardium to ischemic damage is a phenomenon of ischemic preconditioning (IPC), the existence of which proven in experimental [1,2] and clinical [3-5] studies. In particular its role in reducing the degree of expressed risk of angina attacks, improvement quality of life, in patients who have undergone myocardial infarction (MI). In a number of studies the protective value of preangina pectoris as a factor that improves general level of coronary reserve. However comparison of the specified protection mechanisms myocardium with its more significant damage it is not clear in the literature what requires detal study.

Key words: Preangina pectoris, coronary heart disease, protection, post-infarction period.

Material and methods: At the outpatient stage of rehabilitation, they were examined 78 patients, mostly men (n=59; 75.6%), aged 41-65 years (average age 54.6 ± 7.2), who underwent the first major focal MI in their lives. In most cases (n=48; 61.5%), MI developed against the background of previously diagnosed coronary heart disease (CHD), manifested by angina attacks - group I, in the rest He was the first manifestation of CHD – group II. Among patients with angina pectoris attacks before MI, 39 (81.2%) had the disease in the form of acute coronary sinasthma (unstable angina pectoris), and in 9 (18.8%) patients, angina pectoris had a stable course. The presence of the IPK phenomenon was determined by bicycle ergometry (VEM) with a parallel assessment of the results of Holter monitoring of an electrocardiogram (XM ECG), when patients with signs of myocardial ischemia during primary stress testing did not require the use of medications for relief (a prerequisite for inclusion in the study), subsequently, VEM was performed three times with an interval of a quarter of an hour with a constant XM ECG, similar according to the previously known method [1]. The severity of myocardial ischemia, and, consequently, an indirect assessment of the level of coronary resistivity, was determined by the results of an XM ECG with a separate analysis of "painful" and "mute" episodes during the day of observation [3] and compared with exercise tolerance (TFN) in VEM [14,15]. The obtained results were entered into the Exsel 7.0 spreadsheet and processed using statistical programs designed for Windous 98 using the Student's t criterion.

Results: The load testing carried out in all cases gave a positive result to you, which was one of the criteria for inclusion in this study. Ischemic changes on the ECG were recorded in 100% of cases, whereas the development of a typical angina pectoris pain syndrome occurred in 52 (66.6%) patients. The remaining 26 (33.7%) patients with VEM were diagnosed with painless myocardial ischemia (BBIM). It is noteworthy that BBIM in VEM was more often registered in cases of MI development against the background of full health (n=14; 46.7%) and significantly less often in the presence of angina attacks before MI (n=12; 25.0%; $p < 0.01$). At the same time, BBIM turned out to be more characteristic of the unstable course of coronary heart disease before MI (n=11; 28.2%) and was observed only in 1 case with a stable variant of angina pectoris in the preinfarction period. The indicators of VEM in the examination of patients who underwent MI, depending on the presence of previous angina pectoris. As follows from the data obtained, patients with IHD that existed before MI

differed from patients in whom MI was the first clinical manifestation of the disease, with a higher double product (DP) by 1.61 times ($p<0.001$) and significantly lower severity of myocardial ischemia, characterized by the level of total depression of the ST segment in 6 thoracic ECG leads – by 1.77 times ($p<0.05$); differences in the level of threshold there were no loads. In turn, the combination of the results of VEM, depending on the stable / unstable angina that preceded THEM, showed a higher (1.41 times) TFN in the first case and a significantly higher DP value in them - 1.36 times (both $p<0.001$), whereas the level of total depression of the segment The ST did not differ significantly.

As a result of repeated stress tests performed at quarter-hour intervals, 46 (59%) patients who underwent MI showed an increase in TFN and a decrease in total ST segment depression in 6 thoracic leads, which allowed them to diagnose the phenomenon of IPK. IPK was more common in patients with previous angina pectoris ($n=37$; 77.1%) and significantly less frequently in cases of MI development against the background of full health ($n= 9$; 30%; $p<0.01$). At the same time, it was observed in 4 (44.4%) patients with stable coronary artery disease before MI and in 33 (84.6%; $p<0.001$) patients with unstable angina pectoris that preceded THEM. Indicators of the initial VEM in patients who have undergone MI, depending on the presence of the phenomenon of IPK, in cases of previous MI of angina pectoris and with the development of MI against the background of full health. The presence of IPK was associated with better tolerance of FN when TFN in IPK was 1.14 times higher ($p<0.01$), greater DP values by 1.36 times ($p<0.001$) and a significantly lower level of myocardial ischemia, determined by total ST segment depression in 6 thoracic ECG leads by 1.86 times ($p<0.05$). In turn, significant differences between the examined patients with the presence/absence of angina attacks before MI occurred only in terms of the level of DP, which turned out to be significantly higher in patients who underwent MI with preexisting angina pectoris with the phenomenon of IPK by 1.15 times ($p<0.001$), whereas TFN and pronounced . The severity of myocardial ischemia in this case was insignificant. At the same time, it should be noted that there were no special features of TFN and the severity of myocardial ischemia in the presence of the IPK phenomenon in patients with preexisting angina pectoris, depending on from its stability in the preinfarction period. Along with the above-described features of myocardial ischemia diagnosed by stress testing, the study documented changes in its daily pattern during XM ECG, which was performed in all cases in parallel with VEM. The results of comparing the indicators of XM ECG in the examined patients. Patients who underwent MI, without the phenomenon IPK and previous angina pectoris, in contrast to the isolated existing IPK, differend significantly in the total The duration of ischemia during the day was 1.78 times ($p<0.05$). In turn, these differences were more pronounced in patients with a combination of IPC and previous angina - the difference was 2.62 times ($p<0.01$). These patients also significantly differend in the number of episodes of myocardial ischemia during the day: in the presence of MI without protection phenomena, it was 2.61 times more ($p<0.001$). At the same time, there were no special features in patients with angina attacks before MI. However, a comparison of the degree of pronounced myocardial protection in a combination of IPK with pre-existing angina pectoris with isolated IPK, or only with the presence of stable angina attacks before IT, showed that in the case of such a combination, the differences were exclusively of total duration

Discussion: There has been no doubt lately the fact of the presence of adaptive protection of the myocardium from further damage [7]. At the same time, as a rule, two options are discussed –the presence of angina pectoris (chronic coronary heart disease) before development they [8] are both a phenomenon and a PC [10]. However, especially the news of these phenomena in patients in the post-infarction period has not been definitively established. According to the present study, both

discussed mechanisms significantly improve TFN and are characterized by a significant decrease in total depression of the segment ST, a high level of DP, indirectly characterizing the adequacy of the myocardial oxygen supply and the need for it [9]. The optimization of the FN test parameters turned out to be more pronounced in the presence of a stable course of angina pectoris before the development of MI than in cases of unstable angina pectoris.

References.

1. Aitchison KA, Baxter GF, Awan MM, et al. Opioid effects on infarction of delta and kappa opioid receptor activation in the isolated rat heart: implications for ischemic preconditioning. *Basis Res Cardiol* 2000; 95: 1-10
2. Beller GA. Noninvasive diagnosis of ischemia heart disease. In: *Cardiology*. Eds MH Crofword, JA DiMarco. London. Mosby 2001; 2.3.1.-2.3.10.
3. Opie LH. Preconditioning and metabolic antiischemic agents. *Eur Heart J* 2003; 24: 1854-6.
4. Sato T, Sasaki N, O'Rourke B, Morban E. Nicorandil, a potent cardioprotective agent, acts by opening mitochondrial ATP-dependent potassium channels. *JACC* 2000; 35: 514-8
5. Saif SR, Rajendra HM, Wang Y, et al. Effects of age on the Quality of Care Provided to older patients with acute myocardial infarction. *Am J Med* 2003; 114: 307-15.
6. ACC/AHA/ACP-ACIM Guidelines for the management of patients with chronic stable angina. A report of the American College of Cardiology / American Heart Association. Task Force on Practice Guidelines. *JACC* 2003; 41: 159-68
7. Picano E on behalf of the PISA (Persantin in Atable Angina) study Group. Dipyridamole in chronic stable angina pectoris. A randomized, double-blind, placebo-controlled, parallel group study. *Eur Heart J* 2001; 22: 1785-93
8. Аронов Д.М., Лупанов В.П. Функциональные пробы в кардиологии. Москва «МЕДпресс-информ» 2002; 296 с.
9. Дабровски А., Дабровски Б., Пиотрович Р. Суточное мониторирование ЭКГ. Москва «Медпрактика» 1998; 208 с.
10. Шубик Ю.В. Оценка эффективности и безопасности лечения аритмий с помощью холтеровского мониторирования. *Вест аритмол* 2002; 26: 43-8.