Principles Of Studying The Risk Factors And Prognosis Of Myocardial Infarction In The Population Of Men Of Different Ages According To The Results Of Screening In The Andijan Region

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Resume. A detailed study of the risk factors associated with the development of MI in men allows us to identify their age characteristics. The creation of a calculator for predicting the development of MI, taking into account the age characteristics of risk factors in men, is relevant for the possibility of identifying risk groups during occupational examinations, medical examinations, primary therapeutic examination for further application of a differentiated and individual approach to the prevention of MI.
Key words: cardiology, ischemic heart disease, myocardial infarction, risk factors, insulin resistance, dyslipidemia.

Relevance. It has been proven that a decrease in the influence of risk factors is accompanied by reduction of morbidity and mortality from cardiovasculardiseases, including myocardial infarction (Shalnova S.A., 2004;Golovacheva T.V., 2005; Samorodskaya I.V., 2005; Panchenko E.P., 2006; Oganov R.G., 2007; Schwartz Yu.G., 2007). To increase the effectiveness of preventive measures, it is important to take an integrated approach to assessment of the clinical, psycho-emotional and morphofunctional status of the patient. In this direction, the research conducted in thethe field of clinical anthropology is a scientific field dealing with the study of the features of the clinical course of diseases and the effect of pathogenic agents on the human body, depending on the type of its individual constitution (Nikityuk B.A., 1990; Nikolaev V.G. et al., 2004; Dobrovolsky GL., 2008; Speransky B.C., 2007; Watlin A.G., Chuchkov V.M., 2007; Nikolenko V.N., Mareev O.A., Starostina St., 2007 andYAR-

There are contradictory data in the literature on the relationship between the prevalence and features of the clinical course of a heart attack myocardium depending on the somatotype. A number of researchers believe that myocardial infarction develops more often in people with a hypersthenic type of constitution (Kostyuk F.F., 1993; Sokolov, V.V., 1993; Zarubodik A.G., 1999; Petrova M.M., 1999-2000). On the contrary, Ya.A. Gorbatovsky and S.N. Filimonov (1996) revealed a high incidence of myocardial infarction among normosthenics. According to M.M. Petrova and I.V. Romanova (1996), abdominal somatotype is associated with a high prevalence of acute myocardial infarction, and an undefined somatotype is associated with a high incidence of complications.

According to A.G. Zaruberdik (1999), the largest number of men with myocardial infarction have an abdominal somatotype, and in thoracic and muscular somatotypes, myocardial infarction develops less frequently. Conducted This author studies the constitutional characteristics of men in the south and north of the Tyumen region and the frequency of identification of the main risk factors its development has shown that the incidence of myocardial infarction and the manifestation of risk

factors for its development in men are interrelated with the constitutional type, age and region of residence. The connection of the disease with the climate.

The geographical conditions and the region of residence are indicated by T.I.Alekseeva (1989).However, in these studies, the frequency of detection The impact of the main risk factors on the development of myocardial infarction is covered superficially.

Thus, the high medical, social and related economic significance of the problem of myocardial infarction, the presence of contradictory and insufficient information about the frequency of risk factors and the features of the clinical course of myocardial infarction in men different somatotypes and living in different geographical areas, it caused the need for this study.

The purpose of the study. To carry out a comprehensive assessment of the risk factors for the development of MI in men, highlighting their age characteristics and, based on the data obtained, to develop a calculator for predicting the risk of developing MI in a particular patient.

Material and methods. The study included 112 men with Q and non-Q

They were aged 45-74 years, the average age was 58.9 ± 0.6 years. The patients were divided into 2 groups depending on their age (middle and elderly). The first group consisted of 66 men aged 45-59 years (average age — 53.9 ± 0.5 years), the second — 46 men aged 60-74 years (average age — 66.2 ± 0.8 years). The control group included 34 men without proven coronary heart disease, aged 45-74 years, the average age was 57.1 ± 1.2 years. The study was approved by the local Ethics Committee of the Altai State Medical University. All patients signed an informed consent form before being included in the study.

The study did not include patients with type 1 diabetes mellitus, type 2 insulin-dependent diabetes mellitus, autoimmune, acute infectious, oncological diseases, decompensated thyroid diseases, and severe renal and liver dysfunction. All men underwent laboratory tests to determine the parameters of lipid and carbohydrate metabolism with an assessment of insulin levels and calculation of the glycemic index NOME-IR, the level of C-reactive protein (CRP), as well as testosterone levels. MI was diagnosed on the basis of the third universal definition of myocardial infarction according to the recommendations of the European Society of Cardiology [4].

To assess the type of distribution of features, the indicators of kurtosis and asymmetry characterizing the shape of the distribution curve were used. The values of qualitative features are presented in the form of observed frequencies and percentages. In cases of normal distribution, as well as equality of sample variances, the Student's t-test was used to compare the samples. In the case of distributions that do not correspond to the normal law, as well as with inequality of variances, the nonparametric Mann-Whitney U-test and Wilcoxon T-test were used. The criterion $\chi2$ was used to compare the frequencies of qualitative features. Univariate and multifactorial logistic regression analysis was used to identify predictors of MI development. The level of statistical significance when testing the null hypothesis was assumed to be the corresponding $p<0.05$. When comparing several groups with each other, Bonferroni's correction for the multiplicity of comparisons was used; data processing and graphical representation were carried out using computer programs, including Excel 2007.

Results and discussion. Using discriminant analysis, the following distribution of patients by somatotypes was obtained: thoracic somatotype -18%,muscular - 12%, abdominal - 40% and indefinite - 30%.

A statistically significant predominance of individuals with abdominal somatotype was revealed, which is consistent with the data of most literature sources on the greatest predisposition of this constitutional type to the development of various forms of coronary heart disease (Kostyuk F.F., 1993; Sokolov V.V., 1993; Nikolaev V.G., 1998; Zaruberdik A.G., 1999; Petrova M.M., 1999).

In patients with abdominal somatotype, compared with other somatotypes, in the largest number of observations (80.3%), elevated blood cholesterol levels (6.76 ± 0.18 mmol/l) ($p<0.001$) were detected. In representatives of the thoracic somatotype, an increased lipoprotein content is more often detected (81.8%), whereas the maximum average level of this indicator is typical for the muscular somatotype ($74.43 \pm I 1.11$ optical units). The highest detection rate (81.8%) and the
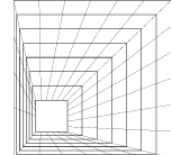
maximum level triglyceride concentrations (3.43±0.98 mmol/l) were observed in the muscular somatotype. The data for the muscular and abdominal somatotypes were similar in terms of body mass index and glycemic level: these somatotypes showed the highest frequency (93.4% and 95.5%) and maximum average values (30.3±3.5 kg/m2 and 27.6±2.2 kg/m2) of increased body mass index and the highest average blood glucose level (10.02±1.43 mmol/l and 10.33±1.11 mmol/l). At the same time, it should be noted that only in the abdominal somatotype, the increased level of glycemia prevailed over normal (51.3%), whereas representatives of thoracic, muscular and indeterminate somatotypes had the opposite frequency ratio. In the thoracic somatotype, against the background of a high frequency of hyperfibrinogenemia common to all somatotypes, there is an increased content of fibrinogen in the blood (5.01 ± 0.19 g/l).

A study of the frequency of arterial hypertension and hereditary predisposition showed that against the background of a high frequency, detectable these risk factors in patients (from 66.0 to 85.4% for hypertension and from 50.0 to 64.5% for hereditary predisposition), there are no significant differences between somatotypes ($p > 0.05$).

Thus, patients with different somatotypes are characterized by the predominance of certain risk factors for myocardial infarction, on the basis of which an individual scheme of primary prevention of myocardial infarction in men is based, taking into account the somatotype.

Conditionally, the first place in the number of risk factors studied by us representatives of abdominal somatotypes occupy the second, and muscular somatotypes occupy the second. In these groups of patients, against the background of mutual aggravation.

The risk factors for myocardial infarction can significantly increase. Therefore, when allocating a contingent of patients who are most burdened in terms of risk factors for myocardial infarction, it is necessary to pay attention to these two groups of patients.

Conclusion. 1. Among men with myocardial infarction, abdominal (40%) and indeterminate (30%) somatotypes significantly predominate, men of thoracic (18%) and most rarely muscular (12%) somatotypes suffer from this nosology much less often.

2. The main contribution to the intergroup differences in men with myocardial

infarction of various somatotypes is made by indicators of the size of subcutaneous fat folds and limb circumferences, reflecting the degree of development of fat and muscular components of the body.

3. Lipid spectrum disorders in patients with myocardial infarction men have peculiarities depending on their somatic type. The highest frequency of detection of elevated levels (80.3%) and the maximum average level of cholesterol in the blood (6.76±0.18 mmol/l) are characteristic of the abdominal somatotype. Hypertriglyceridemia is most common (81.8%) and with a maximum level of triglycerides (3.43±0.98 mmol/l) and lipoproteins (74.43±11.11 optical units) inherent in the muscular somatotype. The majority of representatives of the thoracic somatotype (81.8%) have an increased content of lipoproteins.

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