patient underwent it with grade 2 hematologic toxicity and grade 1 emetogenic toxicity.

At the moment the patient is in a relatively satisfactory condition, complains of periodic non-intense dull pain in the right half of the occipital region, neck, right side of the chest, intensifying in side position, shortness of breath on exertion, palpitation, generalized weakness. Examination detects solid fixed conglomerate of lymph nodes of 3x3 cm large in the right supraclavicular region, skin in the right supraclavicular region is hyperemic, tracheostomy is functioning.

Conclusion. Unfortunately, the most unfavorable prognosis is observed in patients with nonresectable forms of thymus cancer. In patients who have not undergone surgical treatment the 5-year survival is 35.6%.

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POSSIBILITIES OF PREDICTION OF RECURRENT MYOCARDIAL INFARCTION

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Abstract. There 131 patients with Q-wave myocardial infarction were observed (mean age 51.9±9.13 year). For all patients were prescribed beta-blockers, ACE inhibitors, statins, aspirin and if needful antiarrhythmics and aldosterone blockators. The observational time was 24 months. During this period recurrent myocardial infarction (RMI) observed in 39 (29.7%) patients. Analysis of the data showed that of the estimated factors most important for prognosis of the RMI counts in acute early postinfarction angina pectoris, arterial hypertension, diabetes Mellitus, as well as the instrumental methods that reflect the functional state of the myocardium: LVMi, and ejection fraction. No less important was the thrombolysis in the first hours of admission, heart rate at rest, estimated at 10-14 days of the disease. In addition, we can not exclude the relationship of RMI and overweight.

Key Words: recurrent myocardial infarction, prognostic model, integrated indicator.

According to the WHO in 2005 the incidence of acute myocardial infarction (MI) increased by 32.7% compared with 1997 and amounted to 10.7 million people in a population older than 50 [Cleland J.G., Coletta A.P et al. 2005]. The frequency of recurrent myocardial infarction (RMI) is 25-29%. RMI seriously worsens the prognosis and further course of the disease, causing a cascade of complications (heart failure (HF), arrhythmias, a decrease in the quality of life), and also significantly affect mortality rates [1]. Determining the prognosis for MI is a difficult task, since it requires taking into account a large number of interrelated factors that have different prognostic significance [2,3]. Currently existing traditional approaches to risk assessment are not always perfect, which makes it difficult to choose the appropriate treatment tactics for this category of patients.

The purpose of the study was to carry out an integrated assessment of risk factors for PIM, allowing to predict its development within the next 2 years already by 10-14 days of the disease.

Materials and methods: We examined 131 male patients with primary Q wave MI, aged 30 to 69 years (51.9 ± 9.13 years). The diagnosis was established on the basis of the WHO criteria in the presence of two of three signs: a characteristic attack of anginal pain or its equivalent lasting at least 30 minutes, the appearance of pathological Q or QS in two or more ECG leads, and creatinine phosphokinase activity exceeding the upper limit norms more than 2 times. All patients were familiarized with the protocol and agreed to participate in the study. The study did not include patients with the following MI complications and concomitant pathology: atrial fibrillation; AV blockade of the II-III degree; arterial hypotension (blood pressure <100/60 mm Hg); at the age over 65; with chronic diseases complicated by renal and liver failure; decompensated diabetes mellitus; malignant arterial hypertension; oncological diseases; consequences of acute cerebrovascular accident; echo-negative patients.

At the stationary stage of AMI, treatment was carried out in accordance with the recommendations for the management of MI patients with ST segment

elevation and included thrombolytic therapy as indicated, early administration of beta-blockers, antiplatelet agents, anticoagulants, nitrates, lipid-lowering drugs, ACE inhibitors, loop diuretics.

At the background of ongoing therapy, on 10-14 days of AMI, all patients underwent a clinical examination, including examination, medical history, ECG in 12 standard leads, echocardiography, HMECG, blood sampling for clinical and biochemical studies. To characterize ventricular extrasystoles (VE), we used the gradation classification B. Lown (1971) and the prognostic classification J. Bigger (1982).

Hourly qualitative and quantitative assessments of VEs were carried out in accordance with the Lown-Wolf gradations: 0-VEs are absent, 1 rare VE 2-frequent VE; 3- polymorphic VE; 4A-paired VE; 4B - group VE; 5- early VE. According to the classification of J. Bigger, after MI, prognostically unfavorable ventricular arrhythmias (PUFAs) included VE> 10 per hour, paired VE and group VE.

Anterior and posterior localization of MI occurred at the same frequency (59.4% and 40.6% for anterior and posterior localization, respectively). MI without previous angina pectoris occurred in 42% of patients; 58% had a long coronary history. 61.3% of patients suffered from essential arterial hypertension, while only 5.8% of them regularly received antihypertensive therapy (beta-blockers, less often ACE inhibitors), the rest were treated occasionally.

The factors likely to be significant for predicting complications were initially considered:

• age
•arterial hypertension,
•diabetes,
• excess body weight (in this case, the presence or absence of each of them and the sum of all risk factors were taken into account separately);
• the nature of the development of the disease (with or without previous angina pectoris);
• localization,
• pulse
• systolic (SBP) blood pressure,
• diastolic (DBP) blood pressure,
• the nature of the heart rhythm on the 10-14th day;
• determined by echocardiographically the final diastolic size of the left same ventricle, stroke volume,
• left ventricular myocardial mass
• ejection fraction of the left ventricle.

The follow-up period was 2 years. Within 2 years, RMI was observed in 39 (29.7%) patients.

The development of the prognostic scale is based on a modification of the Bayes probabilistic method - the method of normalized intensive indicators (NII) [4] with the calculation of prognostic, weight indices, normalized intensive and integrated indicators. To compile the prognostic matrix, comparable indicators of the predicted phenomenon were obtained by gradations of the most important factors. The significance of factors and their gradations were determined using the relative risk (RR) indicator, which represents the product of the Relative Risk (RR) by the factor's "weight".

Results and its discussion

Currently, mortality and disability from complications of myocardial infarction remain high, which necessitates increasing the effectiveness of predicting its complications. Today, there are high-tech methods for the prevention of post-infarction complications - whether it is installing a cardioverter-defibrillator to prevent sudden death or revascularization to prevent RMI [5]. But, given the high cost of these methods, a more objective and early risk-stratification of myocardial infarction is required.

To assess the significance of factors affecting the development of RMI, a risk prediction scale has been developed. The prognostic scale of risk factors is presented in table 1.

Table 1.

Prediction matrix for a comprehensive assessment of the risk of developing RMI.

Parameters		M, % **24,5**	NII	RR	X (min/max)
Age	Under 45 y	20,52	0,838	1,376	1,15
	Older than 45 y	28,24	1,153		1,59
FC HF	No	3,24	0,132	1,349	0,18
	1	3,53	0,144		0,19
	2	3,99	0,163		0,22
	3	4,15	0,169		0,23
	4	4,37	0,178		0,24
HRV Ti	<15 s	22,22	0,907	1,184	1,07
	15-20 s	26,32	1,074		1,27
	>20 s	24,56	1,003		1,19
SDNN	<50 ms	18,64	0,761	1,509	1,15
	50-100 ms	20,19	0,824		1,24
	>100 ms	28,13	1,148		1,73
AH	Yes	63,27	2,582	3,306	8,54
	No	19,14	0,781		2,58
BMI	<25,0 kg/м²	14,31	0,584	1,991	1,16
	25,0-29,9 kg/м²	22,68	0,926		1,84
	>30,0 kg/м²	28,49	1,163		2,32

EDS	>5,5 sm	28,21	1,151	1,114	1,28
	<5,5 sm	25,33	1,034		1,15
ESS	>3,5 sm	36,36	1,484	1,543	2,29
	<3,5 sm	23,57	0,962		1,48
LVMM	>200 gr	28,28	1,154	1,634	1,89
	<200 gr	17,31	0,706		1,15
LVDD	E/A<1	21,88	0,893	1,750	1,56
	E/A>1	38,29	1,563		2,74
VE >10/hour	Yes	27,14	1,108	1,255	1,39
	No	21,62	0,883		1,11
EF	<50%	25,74	1,050	1,930	2,03
	>50%	13,33	0,544		1,05
VE polytopic	Yes	25,00	1,020	1,188	1,21
	No	21,05	0,859		1,02
VE IVA	Yes	30,00	1,224	1,085	1,33
	No	27,66	1,129		1,22
i LVMM	>150 gr/м^2	45,15	1,843	3,076	5,67
	<150 gr/м^2	14,68	0,599		1,84
Thrombolysis	Yes	21,54	0,879	1,851	1,63
	No	39,86	1,627		3,01
HR	>80 per min	34,30	1,400	1,894	2,65
	<80 per min	18,11	0,739		1,40
DM	Yes	66,67	2,721	2,929	7,97
	No	22,76	0,929		2,72
early post-infarction angina	Yes	80,00	3,265	3,766	12,30
	No	21,24	0,867		3,27

Note: M - normalizing value, RR - relative risk.

The average frequency of PIM according to the data of the entire study was taken as the normalizing value.

So, in patients older than 45 years, the frequency of RMI (r) was 28.24%, and up to 45 years - 20.52%. The same indicator among all examined was 24.5%. This value was taken as the "normalizing" indicator (M) for RMI.

Substituting the corresponding values into the above formula, we obtained the following normalized intensive indicators: in patients under the age of 45 years, NII1 = 20.52 / 24.5 = 0.838, and over 45 years old NII2 = 28.24 / 24.5 = 1.153 . Relative Risk Index (RR) = 1.153 / 0.838 = 1.376 (Table 1).

Similarly, NIIs were calculated for all other risk factors, which were a standard that allowed predicting the risk of developing RMIs, both for a single factor and for their complex.

Knowing the relative risk index (RR) of the occurrence of RMIs and the normalized intensive indicator (N), we determined the strength of the influence of each individual factor on the development of RMIs, i.e. prognostic coefficient (X = N * RR).

As previous studies have shown, with increasing age, the risk of adverse outcomes with AMI increases [6]. Our data coincide with the opinion of other researchers. The relative risk indicator for age is 1.376, NII 1 = 0.838, NII 2 = 1.153, then the integrated indicator of the strength of influence of each individual factor, i.e. the predictive coefficient was: 1.376x0.838 = 1.15 if the patient is under 45 years old and 1.376x1.153 = 1.59 if the patient is older than 45 years.

An analysis of the data obtained showed that of the factors assessed, the most important for predicting the development of RMI is the presence in the acute period of early post-infarction angina, history of hypertension, diabetes mellitus, as well as indicators of instrumental methods that reflect the functional state of the myocardium: iLVMM and EF. No less important was the conduct of thrombolysis in the first hours of admission, the heart rate at rest, estimated at 10-14 days of illness. In addition, it is impossible to exclude the relationship of the development of RMI with overweight [7].

To determine the possible range of risk values for the complex of factors taken, the minimum and maximum values of the prognostic coefficient for each factor were summarized. Calculations showed that the risk range is in the range of 27.91-61.43.

The possible risk range (27.91-61.43) was divided into three sub-ranges: weak-buy (27.91-39.09), moderate - (39.09-50.26) and high - (50.26- 61.43) the likelihood of a risk of developing RMI.

People with high values of the normative integrated indicator for the totality of the complex of studied factors have a higher probability of developing RMIs and more prerequisites for including them in the unfavorable prognosis group.

The total prognostic coefficient is in the range of 50.26-61.43, therefore, this patient belongs to the poor prognosis group and he needs a comprehensive medical examination and clinical observation.

Further, according to the integrated indicator, each factor was assigned a certain rank. The ranking of factors was carried out taking into account the etiological share of the factor (Table 2.).

Table 2

The distribution of risk factors by significance

Risk Factors	RR	EF, %	Rank Place
early post-infarction angina	3,77	73,47	1
AH	3,31	69,79	2
i LVMM >150 gr/м^2	3,08	67,53	3
DM	2,93	65,87	4
BMI >30,0 kg/м^2	1,99	49,75	5
EF <50%	1,93	48,19	6
HR >80 per min	1,89	47,09	7
Thrombolysis, no	1,85	45,95	8
LVDD E/A>1	1,75	42,86	9
LVMM >200 gr	1,63	38,65	10
ESS >3,5 sм	1,54	35,06	11
SDNN >100 s	1,51	33,77	12
older than 45 years	1,38	27,54	13
FC HF, IV	1,35	25,93	14
VE >10/hour	1,26	20,63	15
VE polytopic	1,19	15,97	16
HRV Ti<15 s	1,18	15,25	17
EDS >5,5 sm	1,11	9,91	18
ЖЭ IVA pair	1,09	8,26	19

Data on the relative risk and etiological percentage of factors at risk of developing PIM indicate that factors of almost complete dependence of RMI were not identified.

A very high conditionality of the disease is associated, respectively, with early post-infarction angina (RR = 3.77; EF = 73.47%) and GB (RR = 3.31; EF = 69.79%). A high degree of causation of an adverse outcome is observed in the presence of LVMI> 150 g / m2 (RR = 3.08; EF = 67.53%) and diabetes (RR = 2.93; EF = 65.87%). Medium conditionality is associated with a BMI> 30.0 kg / m² (RR = 1.99; EF = 49.75%); PV <50% (RR = 1.93; EF = 48.19%); Resting heart rate> 80 beats per min (RR = 1.89; EF = 47.09%); lack of thrombolysis (RR = 1.85; EF = 45.95%); LV DD E / A> 1 (RR = 1.75; EF = 42.86%); LV MM> 200 g (RR = 1.63; EF = 38.65%); ESS> 3.5sm (RR = 1.54; EF = 35.06%) and SDNN> 100 s (RR = 1.51; EF = 33.77%).

Conclusion:

The most informative in terms of predicting the development of RMI in patients undergoing Q-IM, is the presence of early post-infarction angina, a history of AH, LV hypertrophy, the presence of diabetes and excess body weight.

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