

## AN ALGORITHM FOR EARLY DETECTION AND EFFECTIVE PROPHYLAXIS OF THE MAIN SYMPTOMS OF MYOCARDIAL INFARCTION, DEPENDING ON AGE.

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**Abstract.** One of the most urgent problems of our time is myocardial infarction, which is a cardiovascular disease. Many scientists are working with MI in our daily lives. Their main task, along with treatment, is to identify the clinical symptoms of MI and develop therapeutic measures for them. This article presents ideas and considerations on solutions to these and similar problems.

**Key words:** Myocardial infarction, symptom, biochemical marker, pathological, auscultatory phenomena, sweating, clinical symptom, prognosis.

**Relevance and necessity of the topic.** The introduction of modern medicine and technological tools in our society is leading to the improvement of medical practice.

Also, screening, registration, detection of comorbidity, and prevention of myocardial infarction are among the urgent problems facing our society, which is shaped by modern technology.

21-year changes in the prevalence of clinical symptoms of MI in the young ( $\geq 20$ –44 years), middle-aged (45–59 years), elderly (60–74 years), and the elderly ( $\geq 75$ –89) were studied and evaluated. The determined analytical results are presented in Table 1 and Figure 1.

These data are of prognostic, predictive and preventive and diagnostic value.

**Discussion of research results.** The main symptoms of MI are confirmed and characterized by changes in the following prevalence rates between 2001 and 2021: Rousae “+” – from 100.0% and 94.1% (with a decrease of 5.9%), ECG symptoms – from 100.0% and 88.2% (with a decrease of 11.2%), biochemical markers of MI – from 75.0% and 94.3% (with an increase of 19.3%), EchoCG and CT symptoms – from 50.0% and 88.2% (with a decrease of 38.2%), skin changes – from 100.0% and 94.1% (with a decrease of 5.9%), sweating – from 100.0% and 94.1% (with a decrease of 5.9%), pathological auscultatory phenomena – 87.9%

and 94.1% (with an increase of 6.2%), total main symptoms – 87.5% and 94.1% (with an increase of 6.6%).

The frequency of ACA in the population with MI aged 45–59 years (middle-aged population) is 95.9% (2001) and 98.6% (2021), i.e. the change in the 21-year characteristic is expressed as an “increasing frequency” of 0.8% ( $P>0.05$ ). ACA manifestations: Rousae “+” – 95.0% and 100.0% (with an increase of 5.0%), ECG symptoms – 100.0% and 100.0% (with an unchanged indicator), biochemical markers of MI – 95.8% and 100.0% (with an increase of 4.7%),

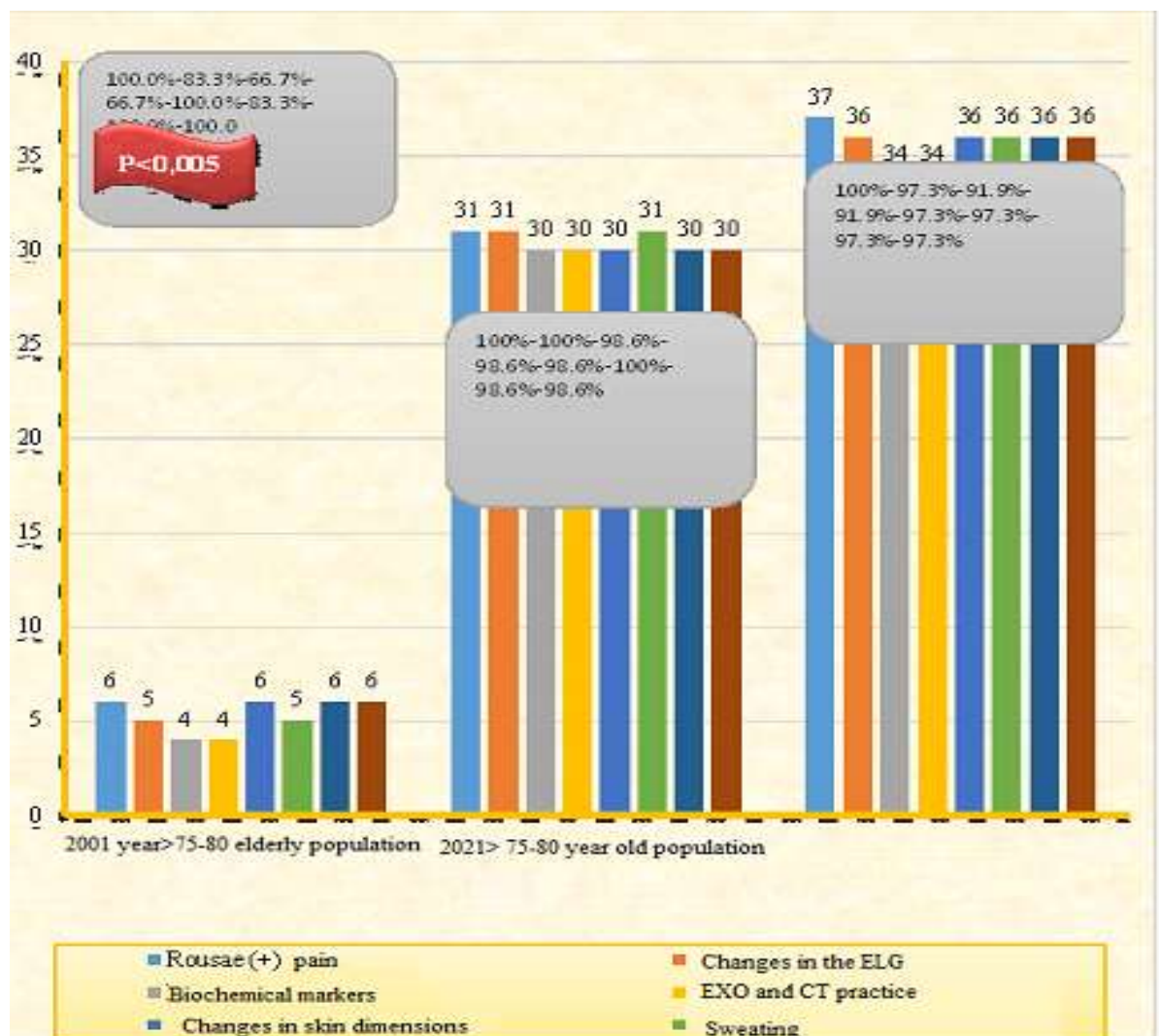
Table 1

**Epidemiology and 21-year changes in the main clinical symptoms of myocardial infarction in a young population**

No.	Control groups ≥20 - 44 years	Main clinical symptoms of MI															
		Rousae (+)		ECG changes		Biochemical change		Echocardiography and CT		Skin changes		Sweating		Muffled tone noise		Total AKA	
		n	%	n	%	n	%	n	%	N	%	n	%	n	%	n	%
1	2001	8	100.0	8	100.0	6	75.0	4	50.0	8	100.0	8	100.0	7	87.5	7	87.5
2	R	>0.05		<0.05		<0.05		<0.05		>0.05		>0.05		<0.05		<0.05	
3	2021	16	94.1	15	88.2	16	94.1	15	88.2	16	94.1	16	94.1	16	94.1	16	94.1
4	2001 – 2021	24	96.0	23	92.0	22	88.0	19	76.0	24	96.0	24	96.0	23	92.0	23	92.0

Echocardiographic and CT symptoms were described with frequencies of 95.8% and 100.0% (with an increase of 4.2%), sweating – 95.5% and 98.6% (with an increase of 3.1%), and pathological auscultatory symptoms – 87.5% and 98.6% (with an increase of 11.1%) during the years of investigation. ( $HR=0.56$ ; 95%  $CI=1.12 - 3.74$ ;  $\chi^2 = 0.97$ ;  $P<0.00254$ ).

The frequency of detection of ACA in the elderly population (69-74 years) increased from 24.4% (2001) to 75.6% (2021) (Table 4.24). For example, Rousae “+” symptom – 25.9% and 20.9% (respectively, with a decrease of 5.0% in 2001-2021), ECG symptoms – 18.8% and 17.6%, detection of MI biomarkers – 18.1% and 17.6% ( $P>0.05$ ), EchoCG and CT symptoms – 13.3% and 17.0% ( $P>0.05$ ), sweating – 18.1% and 17.3% , auscultatory pathological phenomena – 16.5% and 17.3% ( $P>0.05$ ). The frequency of detection of the total main clinical symptoms was significantly improved.



1- picture. Expression of the main clinical symptoms of myocardial infarction in the population aged  $\geq 75-89$  years and 21-year evolution view

Figure 1 shows the identification of the main clinical symptoms and 21-year changes of MI in the elderly population ( $\geq 75$ -89 years old) and the epidemiologic description of the 21-year changes.

The following 21-year epidemiological details of MI are observed with the following frequencies and changes: arrhythmic manifestation – 4.0% (with an increase from 0.00% to 5.9%,  $P < 0.01$ ), onset as “abdominal pain” – 4.0% (with an increase from 0.00% to 5.9%,  $P < 0.01$ ), manifestation with “shortness of breath” during the transition – 0.00% and 5.9% (with an increase of 5.9%,  $P < 0.01$ ), with asymptomatic or “dumb” manifestation – 0.00% and 0.00%, with cerebral symptoms – 0.00% and 0.00%, with collaptoid and radiating manifestation – 12.5% and 0.00% (with an overall average of 4.0%), “death Clinical manifestation in the “panic” category was 12.0% (with a decrease from 12.5% to 11.8%,  $P > 0.05$ ) and with a manifestation in the thromboembolic variant was 0.00% and 0.00%, respectively.

**Numerical** analysis also shows that MInhs is recorded in the 21-year-old population at frequencies similar to those recorded, but with a significant difference.

For example, in this middle-aged population, atypical manifestations of MI are detected with an average prevalence of 7.8%, and 21-year changes are observed with a tendency to decrease by 1.1% from 8.3% (in 2001) to 7.2% (in 2021) ( $P > 0.05$ ). Mainly - arrhythmia (from 0.00% to 2.9%,  $P < 0.01$ ) or with an average prevalence of 2.2%, "collaptoid manifestations" - 1.1% (with an increase from 0.00% to 14%,  $P < 0.01$ ) and "panic of death" symptoms - 4.4% (with a decrease from 8.3% to 2.9%;  $P < 0.01$ ) are noted. Other manifestations (abdominal pain, shortness of breath, CSK, cerebral symptoms and TES) are not noted.

**The aim of the study** is to assess the 21-year changes in the prevalence of nonspecific symptoms of MI in the elderly population and their regional characteristics in the conditions of Uzbekistan .

elderly population, the following 21-year changes in the incidence of atypical symptoms of MI are noted: arrhythmia - from 0.00% to 0.00% ( $P < 0.01$ ), abdominal pain - from 0.00% to 3.2% ( $P < 0.05$ ), shortness of breath - from 0.00% to 3.2%, collapse - from 0.00% to 3.2%, symptoms of death convulsions - from 16.7% to 12.9% ( $P < 0.05$ ), TES - from 0.00% to 3.20%, less symptomatic form of expression - from 0.00% to 0.00%, cerebral symptoms - from 0.00% to 3.2% ( $P < 0.01$ ).

**The study** found that the prevalence of MI complications in men with atypical symptoms of MI is 10.4%, increasing from 2.8% (2001) to 13.1% (2021), or a 6.5-fold increase ( $HR=0.58$ ; 95%  $CI=0.35 - 1.56$ ;  $\chi^2=0.87$ ;  $P < 0.0667$ ). The most common are acute heart failure

(K1 – 2.9%, K2 – 2.4%, K3 – 2.4% and K4 – 2.4%), cardiac arrhythmias (2.4%), and RSD (2.9%).

In women, the incidence of MI complications is confirmed by showing a 5.6% frequency and a trend of increasing from 0.00% (in 2001) to 7.6% (in 2021) (HR=0.67; 95% CI=0.43 - 2.56;  $\chi^2=0.96$ ;  $P<0.086$ ).

The incidence of MI complications in women varies and is determined at the following frequencies: 20–44 years old – from 0.00% (2001) to 23.5% (2021) ( $P<0.01$ ), 45–59 years old – from 4.2% to 11.5% ( $P<0.05$ ), 60–74 years old – from 0.00% to 23.2% ( $P<0.01$ ),  $\geq 75$ –80 years old – from 0.00% to 18.8% ( $P<0.01$ ), [HR=0.65; 95% CI=0.87–2.06;  $\chi^2=3.78$ ;  $P<0.0003$ ]/

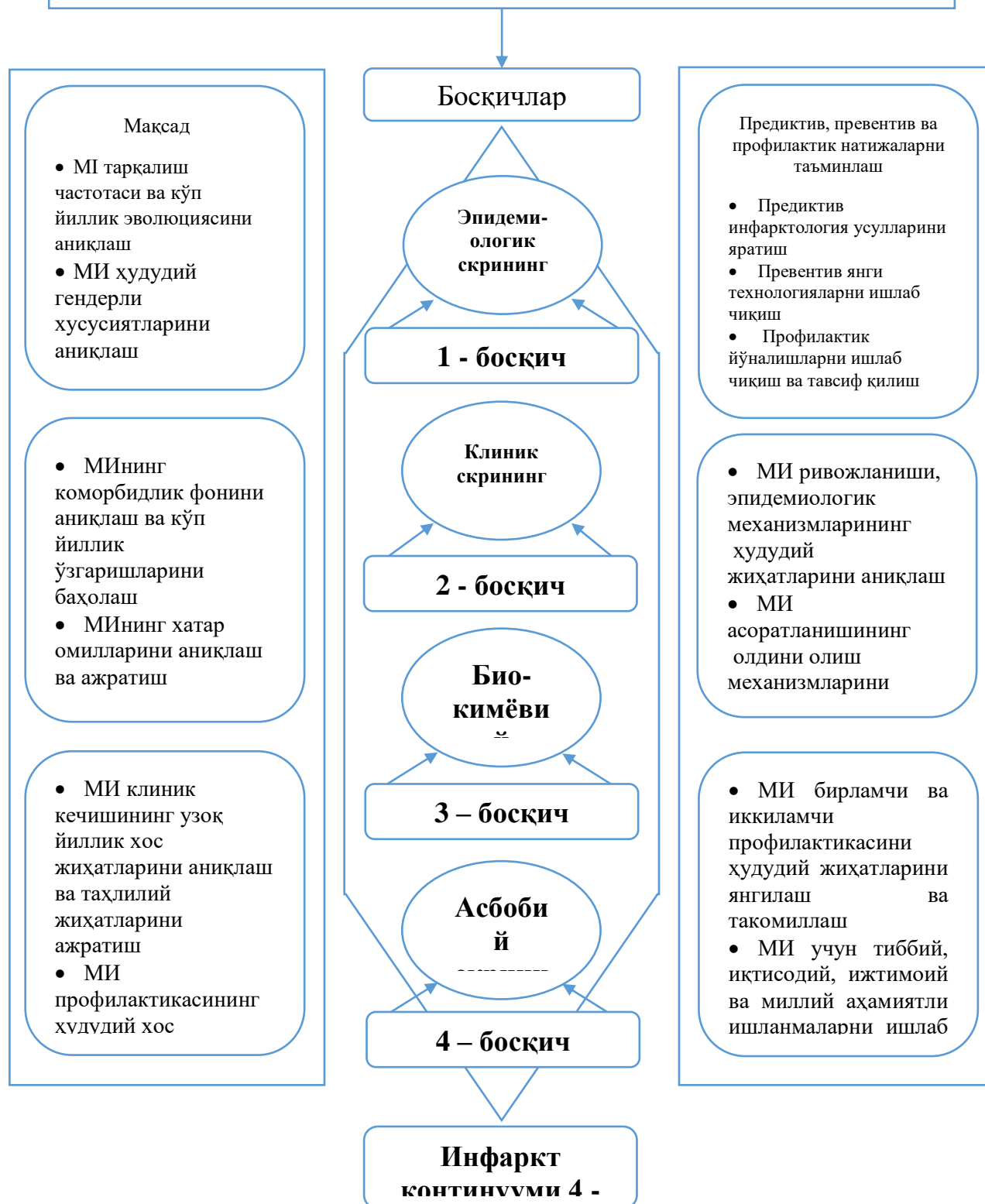
**Conclusion.** It is important that the information obtained has a positive impact not only on the diagnosis, but also on the prognosis of patients with MI.

Diagnosis and the quality of life of patients will improve. Taking this into account, our ability to make a diagnosis will improve.

#### Used literature

1. Baetrikov O.Yu., Grigoricheva E.A. Gendernye osobennosti prediktorov serdechno - sosudistyx zabolevaniy po dannym 8 - letnogo prospectivenogo nablyudeniya // Kardiologicheskiy vestnik. – 2022. – Spetsvypusk. - S. 122.
2. Beysenbaeva J.M., Konovalov O.E. Sovremennoe sostoyanie kardiologicheskoy pomoshchi v Respublike Kazakhstan // Kardiologicheskiy vestnik. – 2022. Special release. - S. 122-123.
3. Mamasaliev , N.S. Acute coronary syndrome in Uzbekistan: specific features in diagnosis, treatment and prevention, treatment and prevention, and registration in Andijan and comparison with data from other countries / N.S. Mamasaliev ,
4. M.A. Kachkovsky , Z.N. Mamasaliev [i dr.] // Vestnik meditsinskogo instituta " Reaviz ": rehabilitation, vrach i zdorove. - 2018. - T. 35, No. 5. - S. 32-40.

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2- picture. An improved algorithm for early diagnosis and prevention of myocardial infarction in valley conditions

“Improved algorithm for early diagnosis and prevention of myocardial infarction in the valley” for the valley, which improves the indicators of patients, eliminates or reduces medical and economic losses, and provides diagnostic, prognostic and therapeutic effects. The algorithm is shown in Figure 4.9.

The conclusion is that algorithmic medicine is used at the first level, in cardiology dispensaries and emergency medical centers, as well as in their regional branches, in specialized cardiology scientific centers. It is chained in 4 stages and is performed based on epidemiological, clinical, biochemical and instrumental screening. As a result of the strategic provision of a targeted and comprehensive approach, it has medical, economic, social and national significance. Myocardial infarction mortality also decreased to 4-6% of the continuum, and such a prediction can be made completely when this algorithm is used.

#### REFERENCES USED:

1. Asfandiyarova, N.S. Multiple chronic pain / N.S. Asfandiyarova // Clinical gerontology. - 2018. - T. 24, No. 3-4. - S. 58-64.
2. Beylina, N.I. Komorbidnost patsientov terapevticheskogo statsionara / N.I. Beylina, A.O. Pozdnyak // Practical medicine. - 2018. - No. 9. - S. 74-77.
3. Mamasaliev, N.S. Acute coronary syndrome in Uzbekistan: specific features in diagnosis, treatment and prevention, treatment and prevention, and registration in Andijan and comparison with data from other countries / N.S. Mamasaliev,
4. M.A. Kachkovsky, Z.N. Mamasaliev [i dr.] // Vestnik meditsinskogo instituta " Reaviz ": rehabilitation, vrach i zdorove. - 2018. - T. 35, No. 5. - S. 32-40.