

ISCHEMIC CARDIOMYOPATHY ASSESSMENT ACCORDING TO THE MMAS 4 SCALE

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<https://doi.org/10.5281/zenodo.14539857>

Abstract. When the risk factors of cardiovascular diseases come together, it can lead to diseases with damage to many blood vessels. Due to the specific location of the coronary stenosis zone in ischemic KMP, it leads to a sharp violation of vascular permeability, which in turn causes damage to a large part of the myocardium, resulting in severe ischemic stress and pain that is accompanied by a decrease in myocardial capacity. It is manifested by a complex of symptoms [1]. Thus, identifying the main risk factors (trigger factors) of the development of IKMP and predicting (predicting) the development of IKMP in patients with ischemic heart disease is an important link in the primary and secondary prevention of ischemic heart disease [2].

Keywords: myocardial infarction, dilatation, ischemia, cardiomyopathy, hibernation, inflammation, left ventricle, right ventricle.

ОЦЕНКА ИШЕМИЧЕСКОЙ КАРДИОМИОПАТИИ ПО ШКАЛЕ MMAS 4.

Аннотация. При сочетании факторов риска сердечно-сосудистых заболеваний могут развиваться заболевания с поражением многих сосудов. В связи со спецификой расположения зоны коронарного стеноза при ишемической КМП происходит резкое нарушение проницаемости сосудов, что в свою очередь вызывает повреждение значительной части миокарда, в результате чего возникает выраженная ишемическая нагрузка и боль, что сопровождается снижением емкости миокарда. Проявляется комплексом симптомов [1]. Таким образом, выявление основных факторов риска (триггерных факторов) развития ИКМП и прогнозирование (предсказание) развития ИКМП у больных ишемической болезнью сердца является важным звеном первичной и вторичной профилактики ИБС [2].

Ключевые слова: инфаркт миокарда, дилатация, ишемия, кардиомиопатия, гибернация, воспаление, левый желудочек, правый желудочек.

Ischemic cardiomyopathy is one of the most important problems of modern medicine, since about 17 million people die every year worldwide, which is approximately 29% of all deaths [3]. In Uzbekistan, this figure has reached catastrophic values - 55%. Ischemic cardiomyopathy has not only a medical, but also a social aspect, since despite the high costs of our state for the diagnosis and treatment of these diseases, the level of disability remains high [4,5]. The basis for the study

of this pathology was Bursh G.E. and co-authors, who proposed the term "ischemic cardiomyopathy" to describe ICH that develops as a result of MI in people aged 45-55 years. And they noted that ICH "actually has many similarities with other cardiomyopathies" and emphasized that "ischemic cardiomyopathy is a true cardiomyopathy" [6,7]. Then, in 1972, Atkinson T. and Wirtmani V. described resting myocardial infarction resulting from ischemic heart disease without previous MI and expressed the opinion that myocardial arrhythmias are not necessary for the development of clinical myocardial infarction.

This nosological problem was discussed in a 1980 WHO report, where ICH was understood as cardiomegaly in coronary artery disease with impaired LV contractile function that could not be explained by the severity of ischemic damage. ICH belongs to a specific group in the classification of cardiomyopathies (WHO/MOFC, 1995) [8].

Objective: To assess the degree to which hospitalized patients with ischemic heart disease (IHD), angina pectoris (AS) functional class (FS) II-III, and post-infarction cardiosclerosis (PICC) followed the doctor's recommendations using the MMAS 4 (Morsky Green) compliance scale. Tadqiqot materiallari va usullari.

The study involved 40 female and male patients hospitalized in the 1st Cardiology Department of the Tashkent Medical Academy with a diagnosis of UIK, ZS, FS II-III, IKKS. The subjects of the study were patients with a history of acute myocardial infarction without Q wave 3-12 months ago. In order to assess the extent to which the patients included in the study took the medications prescribed by the doctor for drinking at home after suffering an acute myocardial infarction without Q wave, 40 patients were monitored. The patients were re-examined at 6 and 12 months. During the examination, a lipidogram, an ExoKS examination, and a questionnaire according to the MMAS 4 (Morsky Green) compliance scale were administered. MMAS 4 (Morskiy Grin) muvofiqlik shkalasi

A questionnaire on the MMAS 4 (Morsky Green) compliance scale to determine the extent to which patients adhere to the recommendations given by their doctor.

MMAS 4 (Sea Green) compatibility scale		
Options	Note	
	0 score	1 score
Have you forgotten to take your medication?	Yes	Not
Have you been neglecting to take your medications on time?	Yes	Not
Have you ever missed taking your medication even though you feel well?	Yes	Not

Have you ever missed taking your medication if you feel unwell?	Yes	Not
Total		
Assessment of treatment adherence: 4 points - adequate (adequate for treatment), 3 points - insufficient adherence, 2 points or less - non-adherence.		

One of the most common tests for assessing adherence to treatment is the Morisky-Green scale, which consists of 4 questions. The most popular, simple and brief test is the Morisky-Green test, which was approved in 1985 and published by the authors in 1986. Since then, this test has been widely used in clinical practice to check patients' adherence to medication. The test contains 4 questions (4-item Morisky Medication Adherence Scale –MMAS-4), which determine whether the patient skips medication if he feels good or bad, forgets to take medication and is attentive to the recommended time of taking the medication.

For each question, you are asked to choose a positive or negative answer (yes/no). Each answer is valued at 1 point. Patients who scored 4 points are considered to be adherent to therapy, 1-2 points - non-adherent, 3 points - insufficiently adherent, at risk of moving into the group of non-adherent patients. The undoubted advantages of the test are its brevity and, accordingly, speed of execution, versatility (this allows the test to be used in patients with various diseases) and ease of interpretation of the test results.

The Morisky-Green test is used to identify patients with various chronic diseases who are more likely to need medical care during a standard examination. The MMAS-4 is often used in scientific research to study various aspects of the problem of persistence, including in the development of new questionnaires and scales, and as a reference test for validating new questionnaires.

Research results and discussion.

In order to determine the extent to which patients adhere to the recommendations given by their doctor, we conducted a survey using the MMAS 4 (Morsky Green) compliance scale.

The following results were recorded in our survey (Figure 1).

*Note: * $p < 0.05$, ** $p < 0.01$ -confidence level*

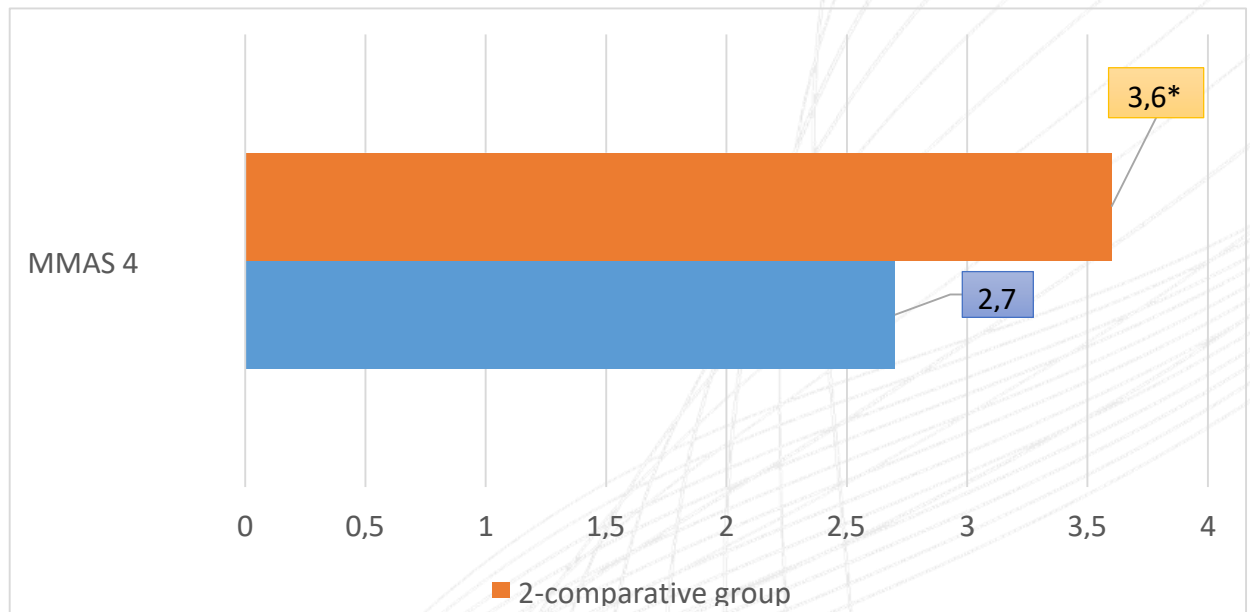
Figure 1. MMAS 4 survey results

The average score of the patients in the main group on the MMAS 4 (Morsky Green) compliance scale was 2.7 points. The average score of the patients in the comparison group was 3.6 points, which is 1.34 times higher than in the main group. 40.5% of the main group regularly take their medications on time. In the comparison group, this figure was 68.7%. It is clear from this that taking medications on time has a significant impact on preventing complications of UIC.

That is, not taking medications on time serves as a trigger for the formation of secondary IICMP.

Conclusion. Multivariate logistic regression analysis showed that all risk factors that play a significant role in the development of UIC are equally important in causing the risk of complications with ICP. An experienced physician should calculate the contribution of each HCO when determining the likelihood of developing ICP in patients with UIC ICP, since each HCO has a different effect. According to the MMAS 4 (Morsky Green) compliance scale, timely administration of medications has a significant impact on the prevention of UIC complications.

That is, failure to take medications on time serves as a trigger for the formation of secondary ICP.



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