

MYOCARDIAL INFARCTION - CAUSES, SYMPTOMS, RISK FACTORS, FIRST AID AND TREATMENT AND MEASURES TO REDUCE RISK FACTORS

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<https://doi.org/10.5281/zenodo.7219553>

Abstract. Myocardic heart attack - causes, symptoms, risk factors, first aid and treatment and measures to reduce risk factors.

Keywords: Infarction risk factors, signs and symptoms of myocardial infarction, atypical forms of myocardial infarction, treatment of myocardial infarction, complications of myocardial infarction.

ИНФАРКТ МИОКАРДА - ПРИЧИНЫ, СИМПТОМЫ, ФАКТОРЫ РИСКА, ПЕРВАЯ ПОМОЩЬ И ЛЕЧЕНИЕ И МЕРЫ ПО СНИЖЕНИЮ ФАКТОРОВ РИСКА

Аннотация. Инфаркт миокарда - причины, симптомы, факторы риска, первая помощь и лечение и меры по снижению факторов риска.

Ключевые слова: факторы риска инфаркта, признаки и симптомы инфаркта миокарда, атипичные формы инфаркта миокарда, лечение инфаркта миокарда, осложнения инфаркта миокарда.

INTRODUCTION

Myocardial infarction is one of the manifestations of myocardial infarction, which is a limited necrosis of the heart muscle and occurs as a result of an acute violation of the balance between its blood supply and demand. It is based on atherosclerosis of the coronary arteries (in most cases), spasms and bleeding into atherosclerotic plaques. Its main cause is atherosclerosis in 95% of cases. The following three conditions can lead to the development of acute necrosis in the heart muscle.

MATERIALS AND METHODS

Risk factors of heart attack

- There are a number of factors that significantly increase the risk of developing this acute disease:
 - Atherosclerosis. The formation of atherosclerotic plaques on the walls of blood vessels as a result of impaired fat metabolism is a major risk factor in the development of myocardial infarction.
 - Young. After the age of 45-50, the risk of developing the disease increases.
 - Gender. According to statistics, this acute condition is 1.5-2 times more common in women than in men, especially during menopause, women are at higher risk of developing myocardial infarction.
 - Arterial hypertension. People with hypertension have a higher risk of developing cardiovascular disease because the need for oxygen in the myocardium increases with increasing blood pressure.
 - Previous myocardial infarction, even if small.
 - Smoking. This harmful habit leads to the breakdown of many organs and systems in our body. As a result of chronic nicotine poisoning, the coronary arteries narrow, leading to a lack

of oxygen in the myocardium. And it's not just about active smoking, it's also about passive smoking.

- **Obesity and hypodynamics.** When fat metabolism is disrupted, the development of atherosclerosis accelerates, and the risk of diabetes increases. Physical inactivity and inactivity negatively affect the body's metabolism, which leads to the accumulation of excess weight.

- **Diabetes mellitus.** Patients with diabetes have a higher risk of developing myocardial infarction because high blood sugar has a negative effect on blood vessel walls and hemoglobin, resulting in impaired transport (oxygen transport).

RESULTS

Symptoms and symptoms of myocardic infarction

This acute condition has its own set of symptoms, and they are usually so obvious that they may not go unnoticed. However, it should be borne in mind that there are also atypical forms of this disease.

ECG symptoms: sinus rhythm, YUS 60 beats per minute or less. The R-R interval is the same and widened (when accompanied by sinus arrhythmia, the R-R interval is different). In all networks, a slightly reduced amplitude R tooth and its association with the QRS complex, as well as the sequence, were preserved. RQ interval 0.12-0.22 sec. extended to. The ST segment may have shifted slightly above the midline, and the T tooth amplitude may have increased.

Acute stages

1. T-wave in the form of a pyramid or tent (delay of repolarization of the inner layer as a result of acute ischemia) - the initial stage

2. Lower isoline and ST segment elevation (with injury associated with diastolic and systolic flow) - transmural ischemia

3. T wave inversion (delayed depolarization) is an intermediate stage

4. Q wave formation (myocardial necrosis) - intermediate stage

5. ST segment normalization (next stage)

6. T wave normalization (chronic phase)

Atypical forms of myocardial infarction

Atypical myocardial infarction can be difficult for a physician to diagnose.

- **Gastric.** The pain syndrome that occurs in this form of the disease is similar to the pain caused by an attack of gastritis and is located in the epigastric region. Examination may show tension in the muscles of the anterior abdominal wall. Typically, this form of myocardial infarction occurs in lower left ventricular injuries close to the diaphragm.

- **Asthmatic.** Reminiscent of a severe attack of bronchial asthma. The patient may experience choking, a foamy sputum cough (which may also be dry), and at the same time the pain syndrome is usually absent or poorly expressed. In severe cases, pneumonia may develop. During the examination, you may experience arrhythmias, low blood pressure, wheezing. Most often, the asthmatic form of the disease occurs in recurrent myocardial infarction, as well as against the background of severe cardiosclerosis.

- **Arrhythmic.** This form of myocardial infarction is manifested by various arrhythmias (extrasystole, atrial fibrillation or paroxysmal tachycardia) or different degrees of atrioventricular block. Myocardial infarction may not be detected on ECG examination due to irregular heart rhythm.

- **Cerebral.** It is characterized by circulatory disorders in the cerebral vessels. Patients may complain of dizziness, headache, nausea and vomiting, leg weakness, and fainting.

Painless option (blurred form). This form of myocardial infarction is the most common cause of diagnosis difficulties. Pain syndrome may not be observed at all, with patients complaining of unexplained chest discomfort and excessive sweating. This form of the disease is most common in patients with diabetes mellitus and is very severe.

Sometimes the clinical picture of myocardial infarction has symptoms of various diseases, and in such cases, unfortunately, the outcome is more negative.

DISCUSSION

Treatment of myocardic infarction

The patient may be suspected of having a myocardial infarction if:

Pain accompanied by a strong burning sensation in the back of the chest, lasting more than 5-10 minutes;

The pain does not go away over time, after calming down or taking nitroglycerin;

The pain is accompanied by severe weakness, nausea, vomiting, headache and dizziness.

If you suspect a myocardial infarction, call an ambulance immediately and start helping the patient. The earlier the patient receives first aid, the more positive the outcome.

The load on the heart should be reduced, so the patient should lie down with his head slightly raised. Efforts should be made to provide fresh air and sedation, and sedatives may be given.

The patient should place a nitroglycerin tablet (pre-crushed) under the tongue and chew one aspirin tablet.

If there are drugs in the beta-blocker group (Atenolol, Metoprolol), the patient should be given 1 tablet for chewing (exactly for chewing, otherwise it is ineffective). If the patient is taking these medications regularly, he or she should be able to tolerate an extra dose of the medication.

To reduce the pain, the patient should be given analgesics (analgin, baralgin, etc.).

In addition, the patient can take one tablet of panangin or 60 drops of corvalol.

If cardiac arrest is suspected (fainting, respiratory arrest, lack of pulse and failure to respond to external stimuli), resuscitation measures (artificial respiration and indirect cardiac massage) should be initiated immediately. If the patient does not regain consciousness, the procedures should be continued until the doctors arrive.

CONCLUSIONS

Prevention of myocardic infarction

Controlling the amount of cholesterol in the blood. Regular monitoring of fat metabolism is recommended for all people over the age of 45, as atherosclerosis, which develops when it breaks down, is one of the leading causes of cardiovascular disease.

Blood pressure control. Your blood pressure is constantly 140/90 mm. sim. ust. above, it is necessary to normalize it with medication, because with arterial hypertension, the load on the heart increases significantly.

Blood glucose control. This is necessary to detect carbohydrate metabolism disorders and prevent diabetes.

Diet. It is recommended to limit the consumption of foods that contain salt, large amounts of cholesterol and difficult-to-dissolve fats. The diet should include more fruits and vegetables rich in plant fiber, vitamins and minerals, and seafood.

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