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# MODERN PHARMACOTHERAPEUTIC PRINCIPLES OF TREATMENT OF MYOCARDIAL INFARCTION DISEASE.

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**Abstract.** Myocardial infarction is a condition in which the coronary arteries of the heart are blocked by a thrombus or their compression, resulting in necrosis (local death) of the heart muscle as a result of impaired blood supply to the heart muscle. This leads to a disruption of the functioning of the entire cardiovascular system and endangers the patient's life. This disease affects people aged 45-60. Myocardial infarction is an acute condition, a clinical form of ischemic heart disease. This article discusses the clinical picture, prevention and treatment of myocardial infarction.
**Keywords.** Myocardial infarction, coronary embolism, coronary artery spasm, atherosclerotic plaque, coronary artery.

Myocardial infarction (MI) is myocardial necrosis caused by acute insufficiency of the coronary vessels of the heart. MI is one of the main causes of disability and death of the population in developed countries. This disease develops more in men. In females, MI is 2.5-5 times less than in males. During menopause, the gap between women and men decreases dramatically. In recent years, the incidence of MI has been increasing. It is especially common in young people and middle-aged people. The overall mortality rate is maintained at 30-50%, despite the reduction in hospital deaths caused by this disease. Mortality rates are particularly high in the pre-hospital stage.

**Etiology and pathogenesis.**The main cause of the development of MI (95%) is atherosclerosis of the coronary vessels of the heart. Sometimes (less than 5%) this disease can also develop as a result of embolism (infectious endocarditis, cardiac thrombi), congenital defect of the vessels of the crown of the heart, coronaritis of various etiologies. However, in this case, the developed MI is assessed not as a type of Yik, but as a complication of some disease mentioned above.

For the most part, the heart develops as a result of thrombosis occurring in the atherosclerotic sac area, when there is a stop or a sharp decrease in blood circulation in the crown vessels << < < complication>>. A new cocoon is cracked, the capsule of which is thin. This, in turn, activates tissue thromboplasty and blood clotting factors in platelets and serum using collagen. At the beginning of the procedure, a platelet << < white>> thrombus is formed in the vascular wall.

Atherosclerosis, arterial hypertension, stenocardia, diabetes mellitus, obesity, irritability, injury, heavy smoking, blood clotting disorders, Troms, strong physical and mental exhaustion, rheumatism, rheumocarditis, increased cholesterol in the blood can lead to myocardial infarction. According to which branch of the crown artery is blocked by the thrombus, a left

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ventricular wall infarction – anterior infarction or left ventricular posterior wall infarction – posterior infarction is distinguished. A heart attack can not only occupy the anterior and posterior wall of the left ventricle, but also spread to the lateral wall of the ventricle, being only a significant size. Such infarcts received the name of anterior-lateral wall infarcts. Right ventricular and compartment infarction is extremely rare. From the heart muscle, the necrotic mass formed in the place of a heart attack is pushed away, and instead the connective tissue grows and thickens, gradually turning into a scar.

**Clinical periods.** In the course of Transmural (Q-toothed) MI, 5 stages are distinguished:

1) Prodromal

2) acute

3) Acute

4) Underbelly

5) post-infarction period

**Prodromal** (received a heart attack) stage. The occlusion of the heart crown vein with the thrombus lasts 2-18 days, and during this period, the condition of the MI appears as one of the types of TBS. It is manifested by a very rapid outbreak of stenocardial attacks, an increase in the number of stenocardia in a calm state, negative changes in the ECG and an increase in painful and painless ischemic episodes in ECG monitoring in the Holter method.
**Acute stage.** This is the period from the first clinical signs of the disease and the signs of acute ischemia of the myocardium in the ECG to the formation of an foci of necrosis (2-3 hours). During this time, morphological changes in the myocardium are reversible changes. As a result of timely thrombolysis, it is possible to prevent the development of necrosis by restoring blood circulation in the myocardium.
There are several types of Mi onset variations:

- **Painful (anginosis**
- **Asmatic**
- **Abdominal**
- **Arrhythmic**
- **Cerebrovascular**
- **Low character (unmarked).**

**Acute stage.** Necrosis is a period when the furnace is formed and necrotic substances are absorbed into the blood and accompanied by a general response of the body (resorption-necrotic syndrome). During this period, the remodeling process of CHQ is reduced, which is manifested by functional disorders of the cardiovascular system. If MI is uncomplicated, this stage lasts 7-10 days.
**Acute subadult stage.** At this stage, connective tissue slowly begins to form in the necrotic area. The remodeling process of CHQ also continues. The duration of this phase varies and is related to the size of the necrotic furnace, the size of the area around it that is not subject to this process, as well as the condition of the collateral circulation. Usually this stage lasts 4-6 weeks. Post-infarction period. At the beginning of this period, the scar area in the myocardium increased collagen and its compaction occurs. Alternatively, a compensatory process is continued that is directed to maintain circulation at the desired level.

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**Clinical picture.** Myocardial infarction is characterized by the appearance of sudden severe pain in the back of the dream, in the area of the heart and in the epigastrium. The pain can also be hand, shoulder, wrist, spine, neck, lower jaw, and back-passing. At this time, usually a person is suddenly very exhausted, the soldier vomits, feels like he is not getting enough air, his heart is overwhelmed by the panic of death, and his body sweats. Sometimes, infartk begins after an attack of stenocardia. However, most patients do not have albinosis pain.

In the first minutes or hours of the disease, arterial pressure rises in most patients, followed by relative or absolute hypotension. Such hypotension is an expression of acute vascular and heart failure initiated by the reflector pathway due to a sharp attenuation of the myocardial contraction function.

When the foci of necrosis are large, the volume of blood that erupts from the heart leads to the onset of acute cardiac shock. In most cases, left ventricular failure is manifested by cardiac asthma and pulmonary edema. The rhythm of the work of the soldier heart can be very traced and cause the death of a person. Meanwhile, arrhythmias are expressed in the form of ventricular and cardiac compartment extrasystole, sinus tachycardia and sinus bradycardia. A few hours after the onset of the disease, the fever may come out and the temperature may rise to 38-38.5 C. Neutrophil leukocytosis begins and the rate of erythrocyte deposition increases.

Diagnosis of myocardial infarction, where it is, the main way to determine the width of the bladder is electrocardiographic examination. A characteristic sign of Transmural infarction is the appearance of a pathological Q tooth with a high rise of the ST segment, t-tooth inversion. Patients with myocardial infarction may die due to recurrent myocardial infarction, strained heart failure (ventricular arrhythmia itself may cause a person to die suddenly).

In laboratory testing, leukocytosis is observed in the blood. ECHT is in moderation in the first days and begins to rise on the 2-3rd. In the following years, several new methods of Investigation have been proposed that confirm myocardial infarction. Enzymes commonly used in diagnosing myocardial infarction include myoglabin, LDG, KFK. An increase in the amount of enzymes in the blood is observed in 85% of myocardial infarction.

ECG data is very important in the diagnosis of myocardial infarction, as examination with ECG allows for an accurate determination of the location of the infarction, visualizing the depth, width of the part of the myocardium that is necrosis. When necrosis occurs in the myocardium, a pathological tooth (Q) appears, leaving the tooth t negative (i.e. downward-pointing).

Risk factors. Considering that in most cases the morphological basis of MI is Atherothrombosis, the main risk factors for MI will be the same as atherosclerosis. Currently, various authors name more than 300 risk factors for KVH, including the classic and new ones associated with the disease. Three major risk factors have been identified according to a WHO report in 2002: arterial hypertension (HTN), hypercholesterolemia, and smoking or a combination of these, causes of death in more than 75% of cases. All risk factors for KVH are divided into modifiable and unmodified. The latter include: age, sex, race, genotype, as well as ACE, lipoprotein (A) levels, blood clotting factors, familial dyslipidemia.

**Treatment.** The treatment of myocardial infarction is carried out in a special ambulance machine brigade, hospitals, Polyclinic, sanatorium. It is necessary to provide him with quick help until the patient is brought to the hospital. Medicines are used to reduce pain relief, heart rate. The patient is admitted to the intensive care unit of the hospital. Lying in the position without moving, psychic, physical tranquility are provided.

To relieve pain (analgesia), 1 ml of 2% promedol, 1% of 1-2 ml of morphine (0.5 ml of 0.1% of atropine sulfate is administered to prevent the additional action of morphine) should be sent

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under the skin. If there is no pain left, after 20-30 minutes the indicated drugs should be re-administered. The drugs are injected into the vein. Droperidol, fentanyl lung tumor, is also used to prevent shock.

Nalorphan is used against morphine if the above drugs adversely affect breathing. A 0.5% solution of nalorphan is injected into the vein at a dose of 2 ml. Severe pain in myocardial infarction can force medications such as morphium, promidol, omnopon, droperidol, fentalin to be used again, several times, every 20-30 minutes. At this time, it is necessary to pay attention to the patient's breathing, blood pressure, heart war. If there is no pain left by the action of drugs, a 50:50 mixture of oxygen with narcosis-zakis nitrogen is given to breathing. It is stopped after exposure to narcosis. Other forms of narcosis may be used as needed (sodium oxybutyrate, hexanal). In pain relief, it is advisable to administer trimecaine to the front of the spinal cord.

**Treatment with heparin.** On the 1st day, 1000-5000 TB is injected into the Heparin and vein as a droplet, then 10000 TB is injected into the lower abdomen, subcutaneous 10000 TB 2 times in 1 day, or 5000 TB heparin is injected 4 times daily under the skin for 7 days. In this case, it is necessary to determine the time of blood clotting, erythrocytes in the blood, hemoglabin, hematuria in the urine. Of the anticoagulants that act indirectly, neodicumarin, cincumar or phenylin are used.

**Care.** In the care of patients with myocardial infarction, it is important to prevent bed sores. In changing the position of the patient, it is necessary to act extremely carefully when changing beds, clothes, not to try on the patient, make drastic actions. Even after the patient is allowed to get out of place, a gradual transition from a horizontal position to a vertical position is carried out. The patient is assigned healing Gymnastics somehow prematurely. Proper care of the patient, giving hope for his recovery, is one of the most important functions of a nurse.

When restoring the health of patients, it is very important to take a walk in the open air for a specified period of time, physiotherapy procedures, sanatorium-resort treatment. Patients are on the dispensary list in polyclinics where they live and are under the supervision of a shikokor. Myocardial infarction is a disease that affects not only the physical, but also the psychological state. Therefore, when maintaining heart health, it is necessary to take into account the general effects of various factors. Regular medical examinations, a healthy diet and a combination of physical activity significantly reduce the risk of heart attack. It is also necessary for all people, regardless of age, to focus on their own health, reduce risk factors and take preventive measures.

In conclusion, myocardial infarction is a disease that can be prevented, but requires caution and the right approach. Maintaining a healthy lifestyle, managing stress, conducting regular medical tests, and eating healthy is an effective way to reduce the risk of heart attacks. Therefore, each person can reduce the risk of myocardial infarction and improve their overall health by taking care of their own health. To prevent this disease, it is necessary that all social strata and society fight together. Thus, myocardial infarction should be fought not only with a medical approach, but also with the promotion of a healthy lifestyle in society. Everyone's health is in their own hands!

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