

CAUSES AND SYMPTOMS OF ISCHEMIC HEART DISEASE

Kudratov Farhod Nortoji ogli

Tashkent Medical Academy

Master student of Cardiology

Teacher: **Makhsudova M.Kh.**

Teacher: **Kenjayev M.L.**

Annotation. This article analyzes the causes and symptoms of ischemic heart disease. Ischemic heart disease is a common disease of the cardiovascular system, accompanied by myocardial ischemia and coronary circulatory disorders. If a complete blood count shows an increase in cholesterol or sugar, it may indicate a process of narrowing of the coronary arteries and the risk of coronary heart disease.

Keywords: circulatory system, disease, cardiovascular, cholesterol, arteries, myocardium, heart attack, atherosclerosis, heart muscle.

Ischemic heart disease is mainly caused by atherosclerosis of the coronary arteries, which results in a lack of blood flow to the heart muscle, which in turn prevents the heart from pumping blood. Ischemic heart disease includes angina pectoris (primary, stable, unstable), myocardial infarction, post-infarction cardiosclerosis, arrhythmic type, and heart failure. Ischemic heart disease, is a persistent severe heart disease. The incidence of the disease increases with age.

In many developed countries, cardiovascular disease is at the top of the sad list of causes of death. In recent years, there has been a declining trend in this cause. Since 2021, the death rate from cardiovascular disease has accounted for less than half of all deaths and continues to decline. However, this figure is still higher than in European countries. Although diseases of the circulatory system are the leading cause of death in all developed countries of the world, the mortality rate from cardiovascular diseases in the European Union is significantly lower than in Russia, in Europe in 2021 the figure was 36.7%.

Diseases of the circulatory system include ischemic heart disease, which causes more than half of all cardiovascular deaths. According to statistics, in 2018, ischemia of the heart caused 53% of deaths due to diseases of the circulatory system - this is 24% of the total number of deaths (3% of deaths were caused by myocardial infarction).

Causes of ischemic heart disease. The most common cause of narrowing of blood vessels is the formation of atherosclerotic plaques on the walls of blood vessels due to the accumulation of fat. Therefore, the risk group includes people who have many conditions for the accumulation of cholesterol in the blood vessels: smokers, alcohol abusers, people with diabetes and obesity, people with a genetic predisposition to hyperlipidemia.

Symptoms of coronary heart disease. Shortness of breath. This can happen during a brisk walk or climb stairs, as well as during quiet activities.

Arrhythmia. Interruptions in heart function, rapid heartbeat.

Hypertension. Sudden jumps in blood pressure.

Pressure angina. Pressure pain in the back of the chest, neck and left shoulder.

Myocardial infarction. It is similar to angina pectoris but is not controlled by medication. It is accompanied by severe pain in the heart. Indicates the development of cardiovascular disease. It is considered life-threatening due to spontaneous heart muscle damage.

Ischemia can also occur in people who do not have specific factors for the development of cardiovascular disease. It is therefore important to know about the symptoms of coronary artery disease. The sooner a circulatory disorder is detected, the better the chances of successful treatment.

However, the development of coronary heart disease is often slow and almost asymptomatic in the early stages (rarely does a person notice pain in the heart area and shortness of breath). At the initial stage, it is necessary to undergo regular preventive examinations by a cardiologist and therapist to diagnose the disease.

Types of coronary heart disease

Treatment depends on the type of ischemic disease. There are several forms of coronary heart disease that need to be identified at the time of diagnosis.

Clinical forms of ischemic disease:

Sudden coronary death; Primary cardiac arrest caused by electrical instability of the myocardium, not by a myocardial infarction. However, this condition does not always lead to death, and sometimes successful resuscitation measures can be taken.

Angina; Angina, in turn, is divided into several subtypes: stable and unstable angina (new onset, early or progressive infarction), vasoplastic and coronary syndrome.

Postinfarction cardiosclerosis;

Cardiac arrhythmias;

Heart failure or circulatory failure.

During a heart attack, necrosis of the heart tissue occurs due to insufficient blood supply. May cause cardiac arrest.

Treatment of coronary heart disease is aimed at restoring the normal blood supply to the myocardium and improving the quality of life of patients. Unfortunately, therapeutic treatments alone are not always effective. There are many surgical correction methods available, such as coronary artery bypass grafting, transmyocardial laser myocardial revascularization and coronary coronary interventions (balloon angioplasty, coronary artery stenting).

Once coronary artery stenosis is eliminated, quality of life is significantly increased, ability to work is restored, the risk of myocardial infarction and sudden cardiac death is significantly reduced and life expectancy is increased.

At present, the diagnosis of coronary heart disease is not a sentence, but a reason for active efforts to select the optimal treatment tactics that will save lives for many years.

Ischemic heart disease, or ischemic heart disease, is a chronic or acute disorder of the blood supply to the myocardium (the layer of muscle in the heart). This is because the heart does not get enough oxygen. This occurs when arterial blood is given to the heart muscle in limited amounts due to coronary artery injury. The acute form of ischemic heart disease is myocardial infarction, the chronic form is angina.

Ischemic heart disease statistics.

According to the Ministry of Health of the Russian Federation, people of working age - 54-59 years (over 42%) die mainly from cardiovascular disease (above 42%) and the number of deaths among men is from cardiovascular disease. the disease is twice as high as in women. In the retirement age population (after age 60-65), mortality rates are approximately equal for both sexes.

Postinfarction cardiosclerosis.

Myocardial infarction develops when necrotic fibers of the heart muscle are replaced by connective tissue. However, the tissue does not have the ability to contract, leading to chronic heart failure.

Cardiac arrhythmias.

It is caused by narrowing of the blood vessels and undulating bleeding. This condition is a form of ischemic heart disease that can lead to the development of angina and even myocardial infarction.

Heart failure or circulatory failure.

The name of the disease speaks for itself - this form indicates that the coronary arteries do not receive enough oxygenated blood.

Again, accurate diagnosis of coronary heart disease is important in the diagnosis of coronary heart disease. Because the choice of therapy depends on the disease.

Diagnosis of cardiac ischemia.

If ischemic heart disease is suspected, the doctor will order blood pressure monitoring, blood and urine tests.

A stress test may also be performed.

An electrocardiogram (ECG) can help diagnose angina (and differentiate it from other similar heart pains), arrhythmias, and myocardial infarction. For complete results, the patient may be given an ECG at rest, with exercise, or under Holter monitoring (monitoring of the heart's electrical activity during the day).

An echocardiograph or ultrasound scan of the heart allows you to visually assess the condition of the heart muscle, valve function, and see areas of a heart attack.

The whole set of diagnostic methods is designed to determine the need for surgical intervention to improve the patient's condition, prescribe medication and prescribe therapy. Unfortunately, coronary heart disease is not yet completely cured. However, the treatment can significantly improve the patient's health.

Treatment of ischemic heart disease: basic approaches and methods

There are currently several ways to treat coronary heart disease. Usually, the doctor prescribes not one, but a set of therapeutic measures based on the diagnosis.

The main approaches in the treatment of ischemic heart disease:

Limit physical activity in cardiac ischemia.

When shortness of breath, chest pain, in short, angina, arrhythmias and the first signs of a heart attack are detected, the patient is advised to refrain from exercise (active and vigorous sports). When climbing stairs and walking, keep your pace moderate and monitor your general condition. However, when the severity of coronary heart disease is low, non-intensive loads can help strengthen the arteries of physical activity: swimming, cycling, quiet walking.

Diet in cardiac ischemia.

As mentioned above, ischemia of the heart is caused by the formation of fatty plaques in the coronary arteries, and an unhealthy diet plays an important role in the accumulation of cholesterol in the body: fast food, alcohol and fatty foods passion. Therefore, improving nutrition can be considered a complete way to fight coronary heart disease: the patient should strictly control their diet, eat foods that contribute to the dilation and strengthening of blood vessels, which do not contain harmful fats. must make goods. In addition to foods rich in fiber and protein, the diet should include honey, nuts, pomegranates, eggplant, citrus fruits, kelp (seaweed).

Treatment of cardiac ischemia without medication.

There are many additional treatments for coronary heart disease. For example: shock wave therapy and hydrotherapy, massage, folk medicine. However, the use of these methods should always be agreed with the doctor.

Cardiac ischemia is drug therapy.

Medication should only be prescribed by a doctor and strictly according to their recommendations. Beta-blockers may be prescribed to lower blood pressure with ischemic disease; nitroglycerin, which dilates coronary arteries; ACE inhibitors that improve blood flow; statin-based drugs that regulate the amount of cholesterol in the blood; aspirin as a means of preventing thrombosis.

Coronary angioplasty in cardiac ischemia.

Coronary angioplasty is a minimally invasive procedure that allows you to increase the permeability of narrowed vessels. It consists of the insertion of a thin catheter through the femoral or brachial artery, at the end of which the balloon is strengthened. Under radiological control, the catheter rises to the narrowing of the artery, and when it reaches it, the balloon gradually swells. At the same time, the cholesterol plaque "presses" on the vessel wall and the permeability expands. The catheter is then removed. Coronary angioplasty is not currently used separately (because stenting is tens of times more effective). It can be used both before stenting to prepare the site for stent implantation and afterwards - to place the stent closer to the vessel wall when the artery has anatomical features.

Coronary artery stenting in cardiac ischemia.

Coronary artery stenting is a minimally invasive (minimally invasive) method of treating various forms of ischemic heart disease, such as stable and unstable angina pectoris, myocardial infarction, resulting from narrowing or complete occlusion of the vessels supplying the myocardium. This method involves inserting an artery through a thin balloon catheter, at the end of which a cylindrical frame (stent) is attached - an elastic metal or plastic structure. The process is similar to angioplasty, with the only difference being that as the balloon expands, the stent attaches tightly to the inner wall of the vessel, where the stent remains after the catheter is removed with the balloon. Stenting can be planned or emergency.

Cardiac ischemia is surgical.

If surgical manipulation is required, for example, coronary artery bypass grafting (the surgeon inserts a new artery into the heart - called a shunt, thereby eliminating heart muscle failure) and in severe cases - a heart transplant .

Prevention of heart disease.

Everyone knows that any disease is easier to prevent than to cure. Therefore, preventive measures to maintain vascular and vascular health should not be neglected. First and foremost, a person needs to eliminate the obvious risk factors for cardiovascular disease: quitting smoking, minimizing alcohol consumption, and avoiding fatty foods and foods high in cholesterol. You should also pay attention to physical activity (especially cardio - walking, cycling, dancing, swimming). It not only helps to lose weight, but also strengthens the walls of blood vessels. You should have a blood test every six months to check your blood sugar and cholesterol levels.

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