

**MODERN INTERPRETATION OF THE ETIOLOGY, PATHOGENESIS AND  
PREVENTION OF MYOCARDIAL DYSTROPHY**

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**Complications:** This is a heart pathology that has not been identified as an independent diagnosis. Cardiologists use this term to refer to a group of diseases associated with improper nutrition of the heart muscle (myocardial dystrophy). As a result of metabolic disorders, dystrophic changes lead to dysfunction of myocardial muscle fibers. The energy balance in myocardial cells is disturbed. As a result, the heart's ability to contract decreases, the heart muscle cannot fully perform its function and cannot deliver oxygen and necessary nutrients to the organs and tissues.

**Research materials and methods:** Myocardial dystrophy is often formed in a healthy heart. This means that the primary disease or condition is not caused by the heart, that is, it is related to the pathology of other organs and tissues, imbalance in the internal environment of the body, including intoxication and general fatigue.

**Observed results:** hypovitaminosis and avitaminosis in the body (insufficient consumption or lack of biologically active substances - vitamins).

**Fasting:** Improper therapeutic fasting or strict diets can lead to malnourishment of the heart muscle and its dysfunction.

The opposite situation associated with obesity and physical inactivity can also lead to the formation of myocardial dystrophy.

General dystrophy, cachexia (in severe, long-term debilitating diseases, chronic pathology).

Toxic poisoning: carbon monoxide, barbiturates, alcohol.

Thyrotoxicosis: pathology of the thyroid gland, associated with excessive release of thyroid hormones into the blood. Dysfunction of the heart muscle during thyrotoxicosis is called thyrotoxic myocardial dystrophy.

Anemia of various etiologies, including iron deficiency.

Endocrine diseases: any disturbance in the functioning of the endocrine glands is associated with the risk of deterioration of the normal functioning of the heart.

Violation of water and electrolyte balance, including dehydration.

Hormonal imbalance (menopause).

Diagnosis of myocardial dystrophy

The diagnostic algorithm of myocardial dystrophy includes standard heart studies:

echocardiography (Echo-CG);

electrocardiography (ECG);

24-hour Holter ECG monitoring;

tests with dosed physical activity, bicycle ergometry;

biochemical blood test: determining the level of milk, pyruvic acids and other energy substrates;

myocardial scintigraphy.

**Examination results:** It gives an indirect idea about the disturbance of metabolic processes in the myocardium, because the myocardium itself does not change structurally in myocardial dystrophy. This is the main difference between myocardial dystrophy and myocarditis (inflammatory damage to the myocardium) and cardiomyopathy (structural changes in the myocardium).

An indispensable method for diagnosing myocardial dystrophy is echocardiography (Echo-CG), as it allows us to exclude organic myocardial pathology: myocarditis, myocardial dystrophy, pericarditis, etc.

Thus, the diagnosis is made after excluding other heart diseases, including inflammatory (myocarditis, pericarditis), organic (cardiomyopathies, heart defects), coronary (related to the pathology of the coronary arteries that supply the myocardium with oxygen) causes. is increased.

**Conclusion:** Knowing the causes and mechanisms of the development of various forms of myocardial dystrophy significantly increases the success of disease prevention and treatment. It is important to identify and treat myocardial dystrophy in the early stages of its development. Timely correction of this condition can significantly reduce metabolic diseases in the heart muscle, which leads to the formation of heart failure.

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