TYPES OF CARDIOMYOPATHY DISEASE AND THEIR UNDERSTANDING

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Annotation: *cardiomyopathies are myocardial diseases that have changed systematically and functionally in the absence of coronary artery pathology of the heart muscle, arterial hypertension and damage to the pore apparatus. Cardiomyopathies are classified as primary (idiopathic) with no known cause and secondary with known etiology.*

Keywords: *cardiomyopathy, etiology, arterial hypertension, pericarditis, dilated cardiomyopathy, hypertrophic cardiomyopathy, restrictive cardiomyopathy.*

Cardiomyopathy is called primary myocardial damage that is not caused by inflammation, tumor, or ischemic process. Most often, pathology has an incomprehensible etiology. In order for a patient to be diagnosed with cardiomyopathy, it is necessary to exclude other diseases: birth defects, heart valve defects, systemic vascular diseases, arterial hypertension, pericarditis, etc.

Cardiomyopathy types there are three main types of cardiomyopathies:

1. enlarged cardiomyopathy,
2.hypertrophic cardiomyopathy,
3. restrictive cardiomyopathy.

Dilated cardiomyopathy in this type of cardiomyopathy, the left and right ventricles stretch, and therefore the volume of their cavities increases. If an adult has a healthy heart about the size of a fist and weighs 240-310 grams, with an enlarged cardiomyopathy it will enlarge.

All this leads to a decrease in myocardial contraction: the strength and speed of contraction decrease. The enlarged heart becomes more difficult to pump out blood, which leads to the development of progressive heart failure.

There are several factors that affect the development of dilated cardiomyopathy:

Heredity. A number of genetic pathologies lead to a violation of the synthesis of contractile proteins in the heart muscle, which leads to stretching of the walls of the heart.

Viruses. Some enteroviruses, such as the very common Coxsackie virus, can damage heart cells and cause increased heart size.

Alcoholism. Alcohol, when consumed in excess, not only has a toxic effect on the nervous system, but also damages heart cells. In this case, alcoholic cardiomyopathy develops.

In men, dilated cardiomyopathy occurs 2 times more often than in women.

Hypertrophic cardiomyopathy in hypertrophic cardiomyopathy, an increase in the volume of the heart muscle is observed. In addition, hypertrophy is often diagnosed in the area of the interventricular septum. This causes the septum to protrude into the ventricular area and interferes with the normal release of blood from the ventricle to the aorta when the heart contracts. This phenomenon is called obstruction, so this type of cardiomyopathy is also called obstructive hypertrophic cardiomyopathy.

Physical activity is contraindicated in hypertrophic cardiomyopathy: it enhances obstruction and causes heart failure. The scandalous cases of young athletes who suddenly died during the competition were mainly associated with this violation. Since it is almost asymptomatic, it seems like a sudden death against the background of iron health. However, in fact, this is a lack of timely diagnosis.

In almost 100% of cases, hypertrophic cardiomyopathy occurs due to a genetic defect - hereditary or sporadic (accidental).

Restrictive cardiomyopathy in restrictive cardiomyopathy, the myocardium becomes rigid (rigid): it does not relax, which prevents the normal filling of the ventricles with blood. This can happen for several reasons:

1.due to pathological infiltration of the myocardium, it is amyloidosis, hemochromatosis, sarcoidosis.

2.the result of diabetes.

3.because of heredity.

4. for unknown reasons.

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Primary cardiomyopathies

- dilated or congestive cardiomyopathy;
- Hypertrophic cardiomyopathy (subaortic stenosis;
- Restrictive cardiomyopathy (endomyocardial fibrosis
- Arrhythmogenic right ventricular dysplasia (Fontana's disease).

The group of secondary cardiomyopathies is extensive and includes myocardial lesions in various diseases and pathological conditions. Secondary cardiomyopathies include alcoholic cardiomyopathy, thyrotoxic cardiomyopathy, tacotsubo cardiomyopathy, diabetic cardiomyopathy, etc.

I. Cardiomyopathy, idiopathic dilation

* Diagnostic basics

* Contractile dysfunction with increased left ventricle; symptoms of heart failure develop in the later stages of the disease;

• No signs of ischemic heart disease, damage to the heart valves, persistent hypertension, alcoholism or other causes of cardiomyopathy;

* Distribution 0.04%;

• The disease occurs three times more often in men than in women;

• Family predisposition is often detected, reaches 20%.

Differential diagnostics

• cardiac ischemia;

• heart valve diseases;

* Hypertensive heart disease;

• Cardiomyopathy associated with thyroid dysfunction;

* Cardiomyopathy caused by human immunodeficiency virus (HIV).

Treatment

• angiotensin-converting enzyme inhibitors and b-blockers;

• diuretics and digoxin to relieve symptoms;

• Spironolactone with severe heart failure;

* Implantation of a cardioverter-defibrillator in patients who survived sudden death and lost consciousness without cause;

• Heart transplant in patients with acute disease, even with optimal therapy (if the transplant criteria are met)

Prognosis is much more favorable than ischemic cardiomyopathy. In addition, b-blockers normalize the activity of the left ventricle in 10% of patients.

II. Tachycardia-induced cardiomyopathy

Fundamentals of diagnostics

* Typical dilate cardiomyopathy with reduced contractile function;

• Ventricular or supraventricular tachycardia (not sinus) lasting more than 3.5 hours.

Differential diagnostics

• Idiopathic dilate cardiomyopathy should be suspected if left ventricular activity does not improve with the control or cessation of tachyarrhythmia;

• Other forms of heart failure with Sinus tachycardia.

TREATMENT

1. Medical therapy or ablation of the atrioventricular node in combination with a pacemaker to control the heart rate;

2. Electrical pulse therapy (cardioversion)for ventricular tachycardia, atrial fibrillation, or atrial flutter;

3. Drug therapy or ablation to correct tachyarrhythmias.

Tachyarrhythmia can worsen decompensation in patients with heart disease.