

HEART DEFECTS-NOREARTIC CARDITIS IN CHILDREN

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Abstract. Congenital heart defects are a group of diseases characterized by an anatomical deficiency of the heart (valve, vessel), which occurs in the mother's womb, and is characterized by disturbances in the heart and hemodynamics. The main symptoms are pale skin, bruising, heart murmurs, stunting, shortness of breath, and signs of heart failure. If a congenital heart defect is suspected, ECG, FKG, X-ray, ExoKG, cardiac catheterization, aortography, cardiography, cardiac MRI are performed. Cardiosurgical treatment is used in many cases.

Keywords: congenital heart defects, causes of congenital heart defects, circulation in heart defects, symptoms of congenital heart defects.

Congenital heart defects are diseases of the heart and large blood vessels that cause changes in blood flow and heart failure. Congenital heart defects occur in 0.8 to 1.2% of all babies born. Congenital heart defects make up 10-30% of all congenital defects. In cardiology, many common heart defects include interventricular barrier failure, (20%), interlobular barrier failure, aortic stenosis, coarctation of the aorta, Batalov tract insufficiency, transposition of large blood vessels, stenosis of the pulmonary artery (10 -15 %) are included.

Causes of congenital heart defects

The causes of heart defects can be chromosomal disorders (5%), gene mutations (2-3%), environmental influences (1-2%), predisposition to polygenic factors (90%).

Congenital heart defects can also be caused by a single gene mutation. In these cases, congenital heart defects occur in an autosomal dominant state (Marfan syndrome, Holta-Orama, Cruzona, Nunana and other syndromes). In the autosomal recessive state, it is characterized by Karatagenera, Carpenter, Robert, Gurler and syndromes.

In addition, external environmental influences can be caused by viral diseases during pregnancy, radiation, drugs, and harmful habits. In the first three months of fetal development, the probability of congenital heart defects is high.

Infection with rubella virus in the mother's womb can cause three diseases: glaucoma or cataract, deafness, congenital heart defects (tetrad of Fallo, transposition of trunk vessels, valvular insufficiency, pulmonary artery stenosis, etc.). Also, head microcephaly, signs of retardation of growth and development may also occur. In addition to rubella, congenital heart defects can be caused by infections such as simple herpes, adenovirus, hepatitis, cytomegaly, mycoplasmosis, toxoplasmosis, listeriosis, syphilis, tuberculosis.

Important recommendations for heart health

Fetal alcohol syndrome can cause insufficiency of the ventricles, insufficiency of the Batalov tract.

Pregnant women with diabetes have a higher risk of giving birth to children with congenital heart defects. In this case, insufficiency of the interventricular barrier and transposition of large vessels are observed in the fetus. 25% of babies with heart defects are born to women with rheumatism. The age of a pregnant woman is less than 15-17 years, older than 40

years, toxicosis in the first three months, endocrine disorders can also cause congenital heart defects.

Classification of congenital heart defects

There are several different classifications of congenital heart defects. According to the effect on the pulmonary blood circulation:

Changes in the small blood circulation: aortic valve insufficiency, aortic stenosis, pulmonary artery valve insufficiency, mitral insufficiency, coarctation of the aorta;

Congenital heart defect increased blood circulation in the lungs: Open Batalov tract, CATE, coarctation of the aorta;

Congenital heart defect interfering with the pulmonary circulatory system: Fallot's disease, right ventricular hypoplasia, Ebstein's anomaly;

Group congenital heart defects: transposition of great blood vessels, Taussig-Binga anomaly.

Circulation in heart defects

Hypertension due to hypervolemia is observed in small blood circulation in white heart congenital defects, and hypoxemia in patients with blue deficiency. 50% of patients die within the first year of life if cardiac surgery is not performed..

Due to the mixing of arterial blood with venous blood in cyanotic congenital heart disease, there is tension in the large blood circulation and hypovolemia in the small blood circulation. In this case, the skin and mucous membranes may be bruised. At this time, the collateral blood vessels of the body are activated in a compensatory way and ensure that the patient lives longer. Long-term strenuous work leads to irreversible changes in the heart myocardium.

Signs of congenital heart defects

Specific symptoms are observed in children born with congenital heart defects. That is, noises may appear in their heart, bruises on the skin, paleness, anemia, slowness of movement are disturbing. Sick children may lag behind their peers in physical development, as well as the body's defenses weaken, and they may be more susceptible to infectious and other diseases.

Blueness of the skin and mucous membranes is observed in congenital heart defects with cyanosis. Bruising after minor stress: worsens when breastfeeding, crying. White heart birth defects show paleness of the skin, a decrease in temperature in the hands and feet. Children with congenital heart defects refuse the breast, get tired during breastfeeding. Sweating, tachycardia, arrhythmia, shortness of breath, pulsation of neck blood vessels are observed in them. In chronic circulatory disorders, the child lags behind in weight gain, height growth and development. Heart murmurs are heard after birth in congenital heart defects. Later, heart failure is observed. Congenital heart defects can cause complications such as bacterial endocarditis, polycythemia, thrombosis of peripheral vessels, thromboembolism of cerebral vessels, pneumonia, angina pectoris syndrome, myocardial infarction.

Diagnosis of congenital heart defects

In a child, cyanosis foci are analyzed in the skin coverings during a visual examination. Changes in heart sounds are studied during auscultation. Heart murmurs are usually heard along with heart sounds. Instrumental examination methods - electrocardiography, FKG, ExoKG are carried out.

Hypertrophy of various parts of the heart, location of the heart, arrhythmia can be diagnosed in the ECG. Characteristic signs of heart tones and murmurs are studied with the help of FKG. Roentgenography diagnoses changes in the small blood circulation circle, heart location, size, shape, lungs, pleura, and vertebrae.

In the ExoKG examination method, the insufficiency of the heart walls and valves, the location of large blood vessels, and the contractility properties of the myocardium are evaluated.

Treatment of congenital heart defects

Currently, one of the main problems of children's cardiology is the method of operative treatment of children with congenital heart defects in the first year of life. Many operations are performed for congenital heart defects with cyanosis. Each heart is treated according to the condition of the congenital defect. KATE, BATE, etc., are operated by plastic surgery. In case of aortic insufficiency, for example, balloon expansion in aortic coarctation and plastic surgery in aortic stenosis are performed. An operation to connect this road will be held on the open Batalov road. If it is not possible to carry out a radical operation, Fontin, Senning, Mastard operations are done.

Useful tips

Today, there are measures aimed at the treatment and prevention of congenital heart defects, which consist of following a healthy lifestyle and treating the disease according to its symptoms. When surgical treatment is necessary, children with congenital heart defects are often operated on at the age of 3-10 years..

New information on a well-known drug: focus on meldonium

It is possible to achieve an uncomplicated course of the disease through comprehensive care. Keep them away from people with frequent colds and treat any respiratory infections immediately.

It is important to pay special attention to the child's diet and manage physical activity. When a sick child's body temperature rises, along with putting him to bed, he should take antibiotic treatment according to the doctor's recommendation, and in order not to dehydrate the child's body during hot months and when his body temperature rises, it should be controlled that children of breast-feeding age drink 800-1000 ml of liquid, and elder ones - 1500-2000 ml of liquid.

It is better to reduce physical activity for children born with congenital heart defects. Also, it is necessary to protect each patient from physical and mental fatigue that leads to blood circulation disorders, to make it possible to perform light physical activities that help to train blood vessels.

It is not always recommended for women with heart defects to have children, because during pregnancy, the demand for oxygen of the developing baby in the womb increases, which makes it more difficult for the heart to work. In case of any defects of the heart valves, it is necessary to terminate the pregnancy before the eighth week.

In order to have a healthy child, first of all, women should be healthy themselves, refrain from drinking alcohol and smoking, avoid serious diseases such as diabetes, avoid consanguineous marriages, avoid viral infections during the first three months.

It is important to fight against diseases such as rheumatism, atherosclerosis, ulcers, as well as to improve the health of the nose and mouth, treat chronic tonsillitis and diseased teeth in the prevention of the development of heart defects.

When negative changes occur in the tissues of the heart valves and their pathways, it is important to prevent circulatory disorders in the heart. It is important to protect the patient from infections, especially from recurrence of rheumatism, to identify the foci of infection in the nasopharynx and oral cavity and carry out timely treatment measures.

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