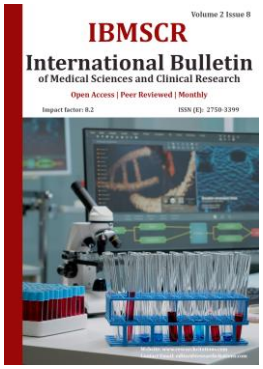


# MODERN METHODS OF TREATMENT OF CONGENITAL HEART DEFECTS

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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 heart and hemodynamic disorders. The main symptoms are pale skin, bruising, heart murmurs, growth retardation, shortness of breath and signs of heart failure. If a congenital heart defect is suspected, ECG, FKG, X-ray, ExoKG, cardiac catheterization, aortagraphy, cardiography, cardiac MRI are performed. Cardiosurgical treatment is used in many cases.

**Key words:** Congenital heart defects, aortic stenosis, aortic coarctation, pulmonary artery stenosis.

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. The most studied causes of congenital heart disease are point mutations or chromosomal mutations in the form of deletions or duplications of DNA segments. Major chromosomal abnormalities such as trisomy 21, 13, and 18 account for approximately 5–8% of TYP cases. Trisomy 21 is the most common genetic cause. Some genes are associated with certain diseases. Mutations of the heart muscle protein, α-myosin heavy chain, are associated with defects of the intercompartmental barrier.

With a large number of different congenital heart diseases, seven of them are the most common: ventricular septal defect (VSD) - congenital heart defects and atrial septal defect (ASD), patent ductus arteriosus (PDA) account for about 20% of all cases does. ), coarctation of the aorta, aortic stenosis, pulmonary artery stenosis, and transposition of the great vessels (TCS), each 10–15%. There are over 100 different types of congenital heart defects. There are many classifications. Often accompanied by cyanosis of the skin, the lesions are divided into blue, and the color of the skin is pale white. Blue-type defects include tetrad of Fallot,

transposition of the great vessels, pulmonary atresia. For white type defects, atrial septal defect, ventricular septal defect, etc. The earlier a congenital heart defect is detected, the more hope there is for its timely treatment. And this can be done even in the womb with the help of ultrasound examination of the fetus. In the early stages (11-14 weeks), it is easier for a specialist to identify a congenital heart defect using transvaginal ultrasound.

Blood circulation in heart defects. Hypertension due to hypervolemia is observed in small blood circulation in congenital white heart defects, and hypoxemia is observed in patients with blue deficiency. 50% of patients will die within the first year of life if cardiosurgical treatment is not performed. Cyanosis congenital heart defect causes tension in the large blood circulation and hypovolemia in the small blood circulation due to the mixing of arterial blood with venous blood. 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. Working with long-term stress leads to irreversible changes in the heart myocardium. 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 on the EKG. 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, 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. Most heart defects can be completely cured only by surgical correction. The main methods of CHD treatment are open heart surgery and endovascular surgery. The choice of treatment method depends on the type of pathology, the age of the child and the general state of his health. For complex defects, multiple intravascular and open heart surgeries may be required. With a patent ductus arteriosus, expectant tactics are allowed, because this channel can be closed by itself in the first two years of life. Endovascular surgery. The method of bringing catheters, occluders, balloons and other intravascular devices through the veins to the pathology zone and their support consists of carrying out various therapeutic manipulations. Today, with the help of endovascular treatment methods, it is possible to perform operations such as strengthening the atrial connection, expanding the stenotic valves of the pulmonary artery and aorta, restoring the lumen of a narrowed vessel, and blocking pathological blood. its embolization through a vein, closure of the patent ductus arteriosus, defects of the interventricular and interatrial membranes and a number of other interventions.

Conclusion: 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. It is possible to achieve an uncomplicated course of the disease through comprehensive care. It is necessary to keep them away from people who often catch colds, and if they get any respiratory tract infections, they should be treated 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, children of breast-feeding age should drink 800-1000 ml of liquid, and adults should drink 1500-2000 ml of liquid. it is necessary to control. 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 heart valve defects, it is necessary to terminate the pregnancy before the eighth week. In order to give birth to a healthy child, first of all, women themselves should be healthy, give up drinking alcohol and smoking, and avoid serious diseases such as diabetes. they should avoid diseases, avoid marriages of close relatives, and avoid viral infections in the first three months of pregnancy. 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.

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