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DYNAMICS OF ECHOCARDIOGRAPHIC PARAMETERS IN HEALTHY GIRLS BORN WITH CONGENITAL HEART DEFECTS FROM BIRTH TO ONE YEAR

Saidova Sadokat Yo`ldoshovna
Bukhara State Medical Institute Assistant of the Department of Anatomy

Annotation
In the presented scientific work, the causes and complications of congenital heart defects in children were explained from the literature. This article provides information on the incidence of congenital heart defects among
children and the risk of sympatry.

Keywords: Heart, EXOKG examination parameters.

Congenital heart defects are one of the main problems of modern pediatrics. [1,9].
Congenital heart defects are the most common group of developmental defects in children and remain the leading cause of death today. [6, 3].
Cardiac evaluation, including physical examinations, has been performed for newborns after birth, but the use of ExoKG to diagnose heart attacks in newborns with asymptomatic, nonsyndromic heart murmurs is controversial. [1,5,7].
Initial cardiac assessment for newborns includes cardiac auscultation, family history of cardiovascular disease, and pulse oximeter testing. ExoKG is performed simultaneously to evaluate the primary heart murmur [4,10]. Regardless of the low diagnostic potential, an electrocardiogram and a chest X-ray are performed as an additional assessment. [10,12]. this systematic examination is carried out using an ultrasound machine. Echocardiographic examination of the heart in all children is required to be performed by neonatologists [3,8].
Appropriate criteria for the use of ExoKG in children and adolescents with heart murmurs have been established [2,11].
Newborns with heart murmurs without syndrome will not yet have heart murmurs. Heart murmurs in newborns are one of the main symptoms of CHD. In addition, the appearance of heart murmurs in children is the main reason for consulting a doctor and further evaluation. In most cases, babies born with CHD have non-syndromic heart murmurs, and its early detection and timely treatment is a complex process [7,9].

Echocardiography (EXOKG) determines the standard measurements of linear, volumetric, phase indicators. The normal values of the dimensions of the heart chambers, the diameter and volume of the vessels are determined [6,10].

The purpose of the study. Study of echocardiographic parameters of children from birth to 3 years with congenital heart defects in Bukhara region.

Research Materials and Methods

In this work, the analysis of echocardiographic examination in healthy and congenital heart defect children aged from birth to 3 years in Bukhara region is presented.

Determination of echocardiographic parameters was carried out among 26 healthy boys aged 0 to 3 years and 20 healthy boys born with congenital heart defects in Nasriddin Shams Limited Liability Company in Bukhara. Echocardiographic indicators were studied using the methodology of echocardiographic study recommended by Y.V. Reznik, G.Y. Gendlin and G.I. Storojakov ("Ehocardiography in practical cardiology" - methodical manual, 2013).

Along with the echocardiographic data of all examined children, information about them is attached: the day of the examination, the child's name, gender, date of birth (for later calculation of age with the date of examination). Echocardiographic examination. Echocardiography is a modern and safe method of ultrasound examination of the heart. This examination is carried out for the purpose of both prevention and disease detection. No treatment is required for the patient to perform an echocardiographic examination. First of all, the sick child or person should be calm. Putting children to sleep as much as possible creates the basis for more accurate and reliable echocardiographic information. The patient is placed on a flat bed. The child's clothes are removed so that their clothes do not interfere with the examination process. Then a special gel is applied to the transducer and the heart examination begins. The inconvenience of ExoKG for the patient is the coldness of the gel and the sensor. But when examining young children and babies, they are used in a heated state so that they do not wake up. Statistical processing of the echocardiographic data obtained in the study according to the standard deviation and representative error was carried out directly using Microsoft Office software on a Pentium-IV personal computer to determine the indices of the "STTGRAPH 5.1" program. Package was implemented from the common matrix of Excel 7.0.

Research Results

According to the results of the study, the width of the aorta (AO) in healthy girls aged from birth to 1 year varied from 9.0 mm to 12.0 mm and averaged 10.9±0.2 mm, which The width of the aorta (AO) varies from 7.0 mm to 13.2 mm in girls born with a congenital heart defect, with an average of 11.3 ± 0.5 mm.

In healthy girls from birth to 1 year, the width of the left ventricle (LV) varied from 9.0 mm to 13.1 mm, and the average was 11.4 ± 0.2 mm, congenital heart and in girls born with a defect, the width of the left ventricle (LV) varies from 7.0 mm to 14.1 mm, and the average is 12.6 ± 0.2 mm. The thickness of the right ventricular (RV) wall varies from 6.1 mm to 11.8 mm in healthy female children under 0-1 years of age, with an average of 10.8 ± 0.7 mm, and in children with congenital heart defects of the same age the thickness of the wall of the right ventricle (R) in female children varied from 8.8 mm to 12.8 mm, and on average it was 11.6±0.8 mm.

The thickness of the wall of the interventricular septum (VT) in healthy girls varied from 4.5 to 6.9 mm and averaged 5.2±0.1 mm. The thickness of the interventricular septum (VT) wall in girls born with congenital heart defects varied from 4.0 mm to 7.1 mm, and averaged 5.7±0.4 mm.

In healthy girls from birth to 1 year, the end diastolic size (ODC) was 14.5 mm to 16.8 mm on average and was 15.1±0.4, from 0 to 1 year and in girls born with congenital heart defects, the end-diastolic size (ODD) was 17.6±0.4, ranging from 11.5 mm to 22.1 mm. If the end-diastolic volume (EDV) in healthy girls of the same age ranges from 5.5 mm to 10.1 mm and is on average 7.1±0.5 mm, then the end-diastolic volume (EDV) has a congenital heart defect in girls, from 4.5 mm to 11.6 mm, the average was 8.1±0.4 mm.

The last systolic volume in healthy girls aged 0-1 years was 10.8±0.2, ranging from 8.0 mm to 11.9 mm. The last systolic volume (OSH) in 0-1-year-old girls born with congenital heart defects ranged from 7.0 mm to 14.0 mm and was on average 11.8±0.2.

In healthy girls from birth to 1 year, the heart rate (HR) ranged from 78.0% to 88.0%, on average it was 83.6% in girls born with congenital heart defects. cardiac output (HR) ranged from 69.0% to 91.0% with an average of 88.6%.

In healthy female children from birth to 1 year, heart contraction frequency (HRC) ranged from 5.1 to 9.6 ml, the average was 8.8±0.2 ml. In girls born with congenital heart defects from birth to 1 year, the frequency of heart contractions (HR) ranged from 5.1 ml to 11.0 ml, the average was 9.8 ± 0.4 ml .

End systolic volume (ESV) in healthy girls ranged from 1.0 ml to 4.4 ml on average 3.4 ± 0.1 ml End systolic volume (ESV) with congenital heart disease in girls born, this

indicator was 4.2±0.2 ml on average, ranging from 1.0 ml to 5.0 ml. In healthy girls from newborn to 1 year old, this volume was found to be 5.1±0.1 ml on average, from 4.0 ml to 6.0 ml. In girls born with congenital heart defects from birth to 1 year, it was found that the average stroke volume of the heart is 6.1 ± 0.1 ml, from 3.0 ml to 10.0 ml. .

It has been proven that the number of heart contractions (HRS) in healthy girls ranges from 150 to 153 on average and is 151. It has been proven that the number of heart contractions (HRS) in girls born with congenital heart defects ranges from 125 to 169, with an average of 158.

The velocity of blood flow in the mitral valve (MK) in healthy girls ranges from 1.48 m/s to 1.53 m/s, with an average of 1.50 ± 0.3 m/s, in the mitral valve (MK) the speed of blood flow in girls born with congenital heart defects ranges from 0.94 m/s to 1.55 m/s, with an average of 1.53 ± 0.3 m/s equal to

Finally, the volume of blood flow in the tricuspid valve (TK) in healthy girls was from 0.90 to 0.93 m/s, on average it was 0.92±0.3 m/s, congenital heart and in girls with defects, it was found to be from 0.90 to 1.24 m/s, and the average was 1.12±0.3 m/s. The speed of blood flow in the pulmonary trunk (OP) ranges from 9.1 m/s to 12.1 m/s in healthy girls, with an average of 11.2±0.2 m/s.

In girls born with congenital heart defects from birth to 1 year, the blood flow velocity in the pulmonary stem (OP) ranges from 7.1 to 14.1 m/s, with an average of 12 is 6±0.4 m/s.

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