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## **FORMATION OF CARDIOVASCULAR PATHOLOGY IN CHILDREN WITH RESPIRATORY SYSTEM DISEASE.**

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**Introduction.** The disease of the respiratory system is one of the most frequent causes of children's referral to a doctor. According to the literature data, the disease of the bronchopulmonary system can lead to irreversible changes in the cardio-pulmonary complex with the development of complications and early mortality.

**Aim:** study of the formation of cardiovascular pathology in children with respiratory disease.

**Materials and methods.** The research was conducted on the basis of the Regional Children's Clinical Hospital in Kharkiv, Kyiv. The anamnestic, clinical and instrumental-graphic data of patients were analyzed.

**Results.** We examined 78 children aged 1 month to 3 years old, who were divided into 3 groups: the first group included 28 (35.8%) children with acute obstructive bronchitis and pneumonia, the second - 27 children (34.6%) with acute simple bronchitis, the third group - the control group of 23 children (healthy children - 29,6%). The groups were representative and comparable.

The examined children analyzed the results of electrocardiography (ECG) and doppler-echocardiography (DopEHOEG). Subsequently, patients were divided into 2 groups: without changes from the cardiovascular system (12%), with morphological features (73%) - (motorized rhythm disorders in the form of sinus tachycardia - 40.5%, reduction of bioelectric activity of the heart (voltage) - 14,3%, overload and hypertrophy of the right chambers of the heart - 18%, violation of processes of ventricular myocardial repolarization - 73,8%). The most pronounced changes were observed in 1 group children.

During the Doppler-echocardiography (DopEHOKG) of the heart in children of the 1st group, an increase in mean pressure on the pulmonary artery (LA) was found to be 20 mmHg. (63%), which significantly exceeds the norm ( $p < 0,05$ ) in comparison with the control group. Regurgitation on the tricuspid valve of the I st. (14%) and the valve of the LA I-II st. (23%), which is significantly increased in comparison with the control group ( $p < 0,05$ ); an increase in the diameter of the right atrium and right ventricle (30%), which significantly differed in patients in the control group ( $p > 0,05$ ). In 19 (50%) patients, there were small abnormalities in the development of the heart.

**Conclusion.** In order to prevent the formation of cardiovascular complications from the cardiovascular system in young children, especially with the presence of broncho-obstructive syndrome, timely detection and appropriate treatment is required, as well as dynamic monitoring of the state of the cardiovascular system with inclusion in the ECG and DopEHOKG examination plan. When cardiovascular complications are detected, further discussion of further patient care tactics is necessary.