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**THE CARDIOVASCULAR SYSTEM CONDITION IN ADOLESCENTS OF KHARKIV REGION**

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**Introduction:** today, according to statistics Ukraine takes one of the first places among European countries with the highest prevalence of diseases of the cardiovascular system. Due to onset of adult population’s cardiac pathology in childhood, increasing the frequency of cases of sudden death among teenagers in the classroom and during physical training or sport events, lack of information about the epidemiology of heart disease in children and adolescents were the reason for the study.

**Materials and methods:** population study among 582 children (46.7±2.07% of boys and 53.3±2.07% of girls) Kharkov region aged 9 to 17 years

**The results and discussion:** the most frequent complaints of the cardiovascular system were: headache (53,96 ± 2,34%), palpitations (39,42 ± 2,29%), frequent nosebleeds (24,22 ± 2,01%), chestpain (22, 68 ±1.96%) and 7,70 ± 1,25% of children in the history of syncope were noted. In the survey 36,52 ± 3,22% of children marked decrease in physical endurance.

In 74,74 ± 1,8% of students were found ECG changes: the rhythm abnormalities - in 40,21 ± 2,03% (sinus tachycardia - 13,57 ± 1,42%; sinus bradycardia - 7 56 ± 1,1%; migration pacemaker - 3,61 ± 0,77%; beat-1, 72 ± 0,54%), conduction abnormalities - in 24,4 ± 1,78% (atrial-ventricular block 1 degree - 0,52 ± 0,3%; complete right bundle branch block beam - 0,34 ± 0,24%; WPW syndrome - 5,67 ± 0,96%; long QT - 3,44 ± 0, 76%), early ventricular repolarization syndrome - in 11,51 ± 1,32%, nonspecific repolarization process violation - in 32,65 ± 1,95%. Rate changes on an electrocardiogram increased after dosed physical load and manifested in 78,35 ± 1,71% of children. Some changes on electrocardiogram (atrial rhythm, pacemaker migration, repolarization process violation) disappeared after exercise testing (7,22 ± 1,07%). In 33,7 ± 2,4% of children who play sports professionally identified deviation on the ECG.

Increased blood pressure found in 14,08 ± 0,77% surveyed. Low index Ruffe set in 8,59 ± 1,18% of children.

Conclusions. The prevalence of changes in the cardiovascular system in school-age children suggests the necessity of continued in-depth examination of the cardiovascular system for early detection of violations and prevent the formation of chronic cardiac disease in adults.