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RUFFIER- TEST AS METHOD OF EVALUATION THE RISK OF CARDIOVASCULAR COMPLICATION IN CHILDREN WITH BRONCHOPULMONARY PATHOLOGY

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Introduction. In the structure of paediatric morbidity diseases of the respiratory system take one of the first places. Changes of the cardiovascular system under conditions of the bronchopulmonary pathology develop slowly and for a long time have an obliterated character. Quite admissible is that a moderate, but lingering hypercapnia and hypoxaemia induce also a myocardial hypoxia. Cardiovascular aberrations in BPP are potentially inversive in childhood what demands their early detection and elimination. The functional condition of cardiovascular system is possible to evaluate by making use of the functional tests. One of them is The Ruffier test, which in simple way and with sufficient rate of reliability sets the functional state of the cardiovascular system and readiness of organism for load.

Purpose. Study of the condition of cardiovascular system in children with respiratory system diseases.

Material and methods. We examined 17 children that were treated in the pulmonary department of Kharkov Regional Children Clinical Hospital, in the age of 5 to 17 years. The examination involved questionnaire survey, assessment of the objective status with carrying out of Ruffier- test, electrocardiography (ECG) and heart ultrasonography.

Results. Out of the examined in 58 % of children we fixed an acute disease, in 42 % – a chronic pathology. The anamnesis on the bronchopulmonary pathology was burdened in 30 % children, in 17.8 % – on the cardiovascular system. The Ruffier test indices in the investigated are: good and excellent – in 40 %, satisfactory – in 33.4 %, weak and unsatisfactory – in 26.6 %; herewith, they are significantly worse in children with a chronic the bronchopulmonary pathology. On ECG in 45.5 % of children we detected aberrations of the rhythm, out of them in 80 % there was sinoatrial brachycardia, in 20 % – tachycardia which could arise in consequence of a long-term hypoxia. At heart USI small structural anomalies were detected in 45.5 % of children.

Conclusions. Ruffier- test is indicative for the assessment of the functional condition of cardiovascular system and must be used for all pupils to control the degree of physical activity in schools. But if children have disease (even acute) results can be considerably worsen, that are necessary to be taken on account.