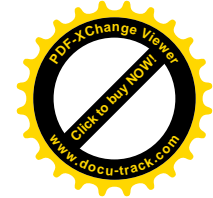
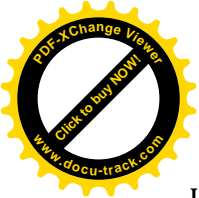


***IXth International Interdisciplinary
Scientific Conference of Young
Scientists and medical students
«Actual problems of clinical and
theoretical medicine»***

(International Scientific Interdisciplinary Conference – ISIC)



ISIC-2016 Abstract book

more than 2 sigma-deviations according to Z-score scale ($p < 0.01$), thickness increasing of the back wall of LV ($T > 4.0 \pm 0.5$ mm, $p < 0.05$) and interventricular septum ($T > 4.7 \pm 0.65$ mm, $p < 0.01$); increasing of the pressure gradient in the outflow tracts of LV more than 10 mm Hg ($p < 0.01$), contraction dyssynergia of the myocardium - in 18.2%, diastolic dysfunction of LV as slow relaxation type - in 75.8%.

Conclusions: in 87.9% of infants with DF structural and functional changes in the cardiovascular system were found. They are hypertrophy of the ventricles, cardiac arrhythmias and diastolic dysfunction of LV as slow relaxation type. The criteria for the diagnosis of DC are hypertrophy of the interventricular septum and back wall of LV and increasing of the pressure gradient in the outflow tracts of LV.

Popova T. O.

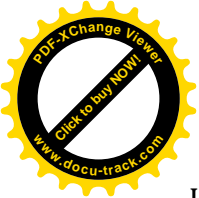
FEATURES OF CARDIOVASCULAR RISK IN CHILDREN WITH BRONCHIAL ASTHMA

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Actuality. Bronchial asthma (BA) takes leading place among chronic diseases of respiratory system. Chronic hypoxemia is the most common consequence of BA, especially in severe stages of the disease, and becomes the major factor of cardiac dysfunction and pulmonary hypertension. High pressure and its further raising is important mechanism, which can change the myocardium electromechanical activity, central and peripheral hemodynamics, heart diastolic function. Functional changes of CVS in patients with BA occur as a result of hypoxemia negative effect on myocardium

metabolism and vessels' vasoconstriction. This may be the cause of cardio-vascular and pulmonary failures in case of severe stage of disease. Changes of the CVS under conditions of the bronchopulmonary pathology develop slowly and for a long time have an obliterated character. Cardiovascular deviations in BA are potentially inverse in childhood what demands their early detection and elimination.

The aim evaluation the risk development of cardiovascular disorders in children with bronchial asthma.



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Material and methods: the 85 children from 7-16 years who had bronchial asthma were observed. The 1th group (1gr.) - 37 children with mild persistent asthma, the 2 group (2gr.) - 48 children with moderate and severe bronchial asthma. Examination were carried out in the period of exacerbation and remission. To evaluate pulmonary hemodynamics used by Doppler echocardiography. External respiration function was studied use a method of pneumotachography with measurement of the indexes: FEV1, MEF-50, MEF-25, pulmonary volumes, respiratory resistance (RFO). Statistical analyses were performed with a statistic package "Exel" and "STATISTICA 7.0".

Results: reliable direct relation between indexes of PLA and RFO has been established in the period of exacerbation ($r=+0,67$, $p\leq 0,012$ - in 1gr. and $r=+0,75$, $p\leq 0,001$ -2gr.). Inverse relation between MEF-50 and the diastolic diameter of the

right ventricle (ddpg) of the 2gr. were significant ($r=-0,56$, $p\leq 0,012$). In the period of remission in all groups are saved direct correlations between parameters of RFO and PLA, especially with RFO-ex (1gr. $r=0,743$, $p\leq 0,002$; 2gr. $r=0,76$, $p\leq 0,001$). In the 2gr.were indicated direct relationship between RFO and ddp ($r=0,63$, $p\leq 0,001$). And moderate significant inverse relationship between PLA and MEF-25 ($r=-0.52$, $p\leq 0.001$); and FEV1 with ddp ($r=0.48$, $p\leq 0,001$).

Conclusions: functional condition of the cardiovascular system depends on type and severity of bronchial asthma: in the period of remission saved unidirectional relation of children of the second group, which is associated with severe course of bronchial asthma and the possible remodeling of the pulmonary vessels and airways, what can increases the risk of cardiovascular disorders development.