



Already office measurements register differences between groups of surveyed children. In patients with obesity compared with the control group blood pressure was significantly higher. The systolic BP was  $134.6 \pm 2.4$  mm Hg comparing with  $125.0 \pm 4.1$  mm Hg ( $p < 0.05$ ), diastolic BP –  $81.7 \pm 2.5$  mm Hg against  $77.1 \pm 2.7$  mm Hg. The most indicative was the average BP (calculated as diastolic BP + 1/3 pulse BP) –  $99.3 \pm 2.1$  mm Hg against  $93.6 \pm 2.0$  mm Hg ( $p < 0.05$ ). The level of BP correlated with children's heart rate. Thus, heart rate correlated with systolic BP ( $r = 0.32$ ,  $p < 0.05$ ), diastolic BP and average BP ( $r = 0.38$ ,  $p < 0.05$ ), but had no associations with pulse BP. At the same time, correlations were observed not only with absolute BP figures, but also with blood pressure indicators standardized by age-sex-height percentiles and with BP during night time.

Along with the difference between the groups, there was a difference depending on the child's chronotype, which concerned those children whose office blood pressure was higher than the 90th percentile. Thus, in children with evening chronotype systolic BP averaged  $131.9 \pm 1.1$  mm Hg, against  $128.9 \pm 1.2$  mm Hg in morning carriers ( $p < 0.05$ ), diastolic BP in children with evening chronotype was also elevated, but without a significant difference with the morning type. The level of BP difference depends on night sleep quality, anthropometric data etc. In obese children, we noted a difference within the group depending on the chronotype - SAT in persons with the morning type was  $137.4 \pm 1.2$  mm Hg, in that time as in the evening -  $140.9 \pm 4.7$  mm Hg. In ABPM data average day time and night time values of SBP were higher in children with evening chronotype too. Thus, when assessing the level of blood pressure in children should also be considered belonging to the chronotype.

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**DIAGNOSTICAL VALUE OF SOME INFLAMMATORY BLOOD MARKERS FOR THE  
DIAGNOSIS OF ACUTE INFLAMMATORY PROCESSES OF THE LOWER  
RESPIRATORY TRACT**

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Verification of acute infectious inflammatory processes of the lower respiratory tract and indication for antibiotic therapy are often based on the evaluation of the activity of inflammatory blood markers, but the data on their informative value in the diagnosis of acute pneumonia and bronchitis in children are controversial and conflicting.

The aim of this survey was to study the diagnostic value of some inflammatory blood markers in the verification of uncomplicated community-acquired pneumonia and acute obstructive bronchitis with the purpose of management's optimization of infectious inflammatory diseases of the lower respiratory tract in children.

At the pulmonological department of the Regional children's clinical hospital in Chernivtsi city 75 children have been examined. In the I clinical group 51 patients with diagnosis of "community-acquired pneumonia" (CAP) were enrolled, and the second (II) group consisted of 24 children with acute obstructive bronchitis (AOB). According to the main clinical characteristics, the groups of comparison have been comparable. These survey results have been analyzed by the methods of clinical epidemiology, considering the sensitivity (Se) and specificity (Sp) of diagnostic tests.

The analysis of the obtained data has showed that in the patients with CAP such common inflammatory blood markers (leukocytosis, relative neutrophilosis, shift of leukocyte formula to the left, elevation of erythrocyte sedimentation rate (ESR) or high level of C-reactive protein (CRP) are characterized by low sensitivity (Se in range between 11% and 63%) indicating that they are inadvisable for use as the screening tests for the verification of pneumonia. At the same time, it has been shown that these inflammatory blood markers are characterized by sufficient specificity (in the range from 75% to 93%) in the verification of pneumonia only under their significant increase (total leukocyte count  $> 15.0 \times 10^9$ , ESR  $> 10$  mm/h and CRP level in blood  $> 6$  mg/ml), indicating that they are relevant enough, but only for confirming inflammation of the lung parenchyma.



Moreover, it has been found that the normal ( $<10.0 \times 10^9$ ) leukocyte level in the complete blood count of children with respiratory pathology was characterized by a significant number of false-negative (Se = 54%) and false-positive (St = 55%) results in verification of AOB.

In general, the low diagnostic and informative role of "classic" blood inflammatory markers for the diagnosis of acute inflammation of the lung parenchyma in children, as well as in the differential diagnosis of pneumonia and acute obstructive bronchitis have been confirmed.

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**CLINICAL MANIFESTATIONS OF POSTHYPOXIC CARDIOVASCULAR  
DYSADAPTATION SYNDROME IN NEWBORNS**

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Clinical manifestations of posthypoxic CVS dysadaptation syndrome in newborns are extremely nonspecific and occur with a large number of diseases of this age period. In mild cases, this pathology can proceed without any symptoms, or with very meager clinical manifestations, which in turn can be inherent in other pathologies of the perinatal period, incl. extracardiac.

182 children were examined. Group I consisted of full-term newborns with a general state of moderate severity (65); Group II - newborns with a serious condition (57). The control (III group) included 60 relatively healthy newborns.

According to our data, the most characteristic clinical signs of cardiovascular disorders in newborns under conditions of perinatal pathology were: cyanosis and acrocyanosis of the skin, muffled heart sounds, tachycardia, arrhythmia and arterial hypotension. However, based only on these indicated signs, it is problematic to make a diagnosis, since similar signs are also associated with other pathology of the perinatal period, the literature data confirm. Therefore, there is a need to improve diagnostic markers for timely verification of disorders of the functional state of the CVS.

Clinical signs indicative of functional disorders of the CVS under conditions of perinatal pathology in newborns of group II were: change in skin color, namely: cyanosis, acrocyanosis of the skin - 36 cases (63.16%), 28 (43.08%) in I the group versus 11 (18.33%) cases in group III,  $p < 0.05$ ; pallor and marbling of the skin - 12 (21.05%) in group I and 7 (10.77%) in group II). In 36 (63.16%) children of group II, muffling of tones was found, it was significantly more often than in children of group I - 12 (18.46%) and group III - 5 (8.33%) ( $p < 0.05$ ); moreover, among the newborns of the II group there was a high frequency of cases of deafness of heart sounds - 14 (24.56%) versus 8 (12.31%) in the first group,  $p < 0.05$ . Among the features of the course of the early neonatal period, a significant percentage that attracted attention was arterial hypotension of I and II observation groups - 12 (18.46%) versus 19 (33.33%) respectively,  $p < 0.05$ . Heart rhythmic disturbances associated with impaired automatism and of a transient nature were found more than in half of the children of group II, namely: arrhythmias, tachycardia - 26 (45.61%) and bradycardia - 5 (8.77%). In contrast to the first group - 14 (21.54%) and 2 (3.08%) and 9 (15.0%) in group III were diagnosed, respectively. The accent of the II tone over the pulmonary artery was diagnosed in 8 newborns (14.04%) of group II, in 4 children (6.15%) - group II and in 2 newborns (3.33%) of the III group,  $p < 0.05$ . in 18 (31.58%) cases in group II, in 14 (21.54%) cases in group I and 8 (13.33%) cases - in group III,  $p < 0.05$ . Thus, the prevalence of clinical manifestations of functional disorders of the CVS in neonates of group II was significantly higher than in group I.

Thus, based on only these indicated signs, it is problematic to make the diagnosis, since similar signs are also associated with other pathologies of the perinatal period. Therefore, there is a need to improve diagnostic markers for the timely verification of functional disorders of the CVS.