gestational age (GA), occurring in 48% of patients born at 22-29 weeks, 18% of patients born at 29-36 weeks (Jetton et al., 2015). ELBW PN also showed different aspects of glomerular or\and renal dysfunction. Many modern studies show that there are perspective biomarkers for identification of early stages of renal impairment, for example, cystatin-C (urinary and plasma measurement), kidney injury molecule-1 (KIM), urinary α1-microglobulin (Uα1-MG), urinary β2-microglobulin (Uβ2-MG), urinary albumin (UAlb) (Askenazi et al., 2016).

Objectives: the aim of our study was to identify the role of Uβ2-MG in prediction of tubular dysfunction/injury in PN with different GA (24 - 36 weeks). Our study included 68 PN admitted to the NICU at the Clinical Maternity Hospital 2 (Chernivtsi, Ukraine) in 2018-2020. The inclusion criteria were as follows: the GA is more than 24 weeks and less than 37 weeks; birth body weight (BBW) is more than 500 g and less than 2500 g; presence of clinical signs of severe perinatal pathology. The inclusion criteria were as follows: the GA is less than 24 weeks and more than 37 weeks; BBW is less than 500 g and more than 2500 g; preterm neonates with any congenital abnormalities of the kidneys and urinary tract; early neonatal sepsis. The evaluation of severity of perinatal pathology was performed by using neonatal Therapeutic Intervention Scoring System (nTISS) (Richardson et al., 1993). All patients had a nTISS score at least 10 points or more and demonstrated moderate or severe heterogenic perinatal pathology with multiple clinical signs. The patients were divided into three groups: the Group I was - 25 PN at the GA of 24-31 weeks, the Group II – 25 PN at the GA 32-33 weeks, the Group III – 18 PN at the GA of 34-36 weeks. Uβ2-MG was measured using the competitive immuno-luminescence assay. Statistical analyses were performed using the statistical software Statistica.

Uβ2-MG is a protein with low molecular weight, normally excreted by all nuclear cells and filtered at the glomerulus. Total reabsorption by proximal tubular cells is the last phase of Uβ2-MG metabolism. The elevation of levels Uβ2-MG is an early marker of tubular dysfunction, especially in case of ischemic or reperfusion renal damage. The main researchers (Askenazi et al.,2011; Jetton et al., 2015) described that Uβ2-MG decreased with increasing GA. In our study we established opposite result with increasing levels of Uβ2-MG in PN with lower GA (Group I - 4.89 [2.86; 6.99] mg/l, Group II - 3.4 [2.9; 3.8] mg/l; Group III - 6.15 [4.11; 6.85] mg/l; Kruskal-Wallis test, p-value = 0.0014).

Our results demonstrated that PN with severe heterogenic perinatal pathology has different aspects of tubular dysfunction. According to changes in urinary levels, analysis demonstrated direct correlations between GA and Uβ2-MG ($p<0.05$), however, longer longitudinal cohort studies on PN are required to establish the predictive and diagnostic role of Uβ2-MG in these patients.

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PECULIARITIES OF THE BIOCHEMICAL SPECTRUM OF BLOOD IN PREMATURE NEWBORN IN CONDITIONS OF PERINATAL PATHOLOGY

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Antenatal hypoxia has a significant and often irreversible effect on various aspects of fetal life and adaptation of the newborn, especially in cases of premature birth. Although, according to some authors, moderate intrauterine hypoxia contributes to a certain degree of adaptation of the newborn, our observations of newborns during the implementation of perinatal risk factors are a prerequisite for the deterioration of the child's ability to adapt to environmental conditions. The combined effect of adverse factors is the cause of severe forms of maladaptation, accompanied by significant metabolic disorders.

The purpose and objectives of the study: to determine the features of the biochemical spectrum of blood in premature infants depending on the severity of the condition in the early neonatal period.

A comprehensive clinical and paraclinical examination of 102 newborns from gestational age from 30 to 37 weeks who had impaired adaptation or nosological forms of pathology in the first week of life. The first group consisted of 25 children who had clinically moderate maladaptation

after birth, the second group - 25 children whose condition was moderate, and the third group - 25 newborns in serious condition. The control group included 27 relatively healthy children born at 34-36 weeks of gestation.

Determination of serum biochemical parameters of children (levels of total protein, albumin, total bilirubin and its fractions, glucose, urea, uric acid, cholesterol, triglycerides; activities of ALAT, AcAT, LDH, LF, GGT; concentration of calcium ions from the use of iron, iron) “ULTRA” analyzer from “Kone” company (Finland) and “PARAGON” electrophoresis device from “Bekman” company (Austria). Statistical processing of the obtained data was performed using a package of applications for medical and biological research "STATGRAPHICS" (2017) on a personal computer.

Intrauterine hypoxia of the fetus causes a restructuring of the main metabolic processes in the body of the premature newborn, which is confirmed by changes in the biochemical spectrum of serum, which are more pronounced in terms of perinatal risk factors. Thus, in children of the first group of observation, compared with relatively healthy premature infants, there was a sufficient level of glucose, total protein and albumin with a decrease in the enzymatic activity of ALT, AST and LDH. This indicates a certain compensatory activation of the metabolism of newborns under conditions of mild hypoxia. In children of the II group there was a decrease in glucose levels, excessive activation of LDH, AST and ALT enzymes, along with an increase in total bilirubin. The presented biochemical changes indicate a violation of energy-generating mechanisms and suppression of cellular functions in moderate oxygen deficiency. In children of the III group there was a decrease in the level of total protein and albumin, an increase in the level of urea and uric acid, along with an increase in glucose levels. These changes were accompanied by biochemical manifestations of cytolytic syndrome and hypercholesterolemia.

Thus, clinical manifestations of maladaptation in premature infants are accompanied by significant changes in blood biochemical parameters, the depth of which correlates with the severity of the newborn, which requires in-depth study to improve the direction of intensive care in perinatal pathology.

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LEVEL OF DYSBIOTIC CHANGES IN PATIENTS WITH CHRONIC PURULENT SUPERCHAIN SINUSITIS

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The aim of the study was to determine the effectiveness of probiotics in the treatment of patients with chronic purulent maxillary sinusitis.

81 patients with chronic purulent maxillary sinusitis (CPMS) in the acute stage were observed aged from 15 to 68 years without concomitant pathology. Clinically, exacerbation of CPMS was manifested by typical local and general symptoms in all the patients. The diagnosis took into account the data of X-ray examination, and the main criterion for diagnosis was a diagnostic and therapeutic puncture of the maxillary sinus, which was performed in 81 patients. The sinus volume, which was reduced in all subjects, and the nature of the pathological contents in the lavage fluid were assessed. Upon admission to the hospital in patients with CPMS in the acute stage, purulent exudate was taken from the maxillary sinuses, which was subjected to microbiological examination, and isolation and identification of microorganisms persisting in the exudate were performed. The species composition and population level of viable (colony-forming) microorganisms in 1 ml of exudate were detected in each pathological material.

The study of the species composition of the microflora of the exudate from the maxillary sinuses found that the leading microorganisms released from the exudate in patients with CPMS are str. pneumonie, Escherichia coli, moraxella catarallis, Staphylococcus aureus, pseudomonads and pyogenic streptococcus. In some patients the disease was found to be caused by associations of opportunistic pathogens.