

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.

Considering the fact that a significant number of inflammatory processes occur in the background of reduced body resistance and dysbiotic changes of the intestine, all patients with exacerbation of CPMS underwent a microbiological examination of the colon cavity in order to determine the species composition and population level of autochthonous and allochthonous representatives, and degree of dysbiotic changes.

The results of microbiological study show characteristic changes in the species composition of anaerobic and aerobic autochthonous, facultative and allochthonous microflora of the contents of the colon cavity, significantly differing from the species composition of the microflora of the colon cavity within normal limits.

In patients with CPMS, the main part of the microflora of the colon is represented by bacteroids, lactobacilli, non-pathogenic *Escherichia coli*, proteas. Physiologically beneficial bifidobacteria are completely eliminated from the colon in 12.7% of patients with sinusitis. Against this background, the percentage of patients with facultative opportunistic anaerobic (peptococcus, clostridia) and aerobic (staphylococci) bacteria is increasing. This fact necessitated the determination of the population level of all viable microorganisms isolated from the cavity contents of the colon of patients with CPMS.

Characteristic of microbiocenosis of the colon cavity of patients with CPMS is a pronounced deficiency of autochthonous obligate physiologically useful bifidobacteria and lactobacilli. Thus, the population level of bifidobacteria decreases by 51.04%, lactobacilli - by 23.46%. At the same time, the number of anaerobic gram-negative bacteroids and aerobic non-pathogenic *Escherichia coli* significantly increases in the content of the colon cavity (by 17.59% and 21.49%, respectively). At the same time, the population level of optional opportunistic anaerobic and aerobic microorganisms - clostridia, peptococcus, proteins, staphylococci - increases.

The results suggest that in CPMS, all patients develop intestinal dysbacteriosis or dysbiosis, mainly of the second degree due to elimination and severe deficiency of indigenous viable bacteria, which reduces the immune status of patients, affects the severity of clinical manifestations of the underlying disease, including CPMS course. Probiotic drugs have a therapeutic effect not only due to the direct effect on the opportunistic microflora, but also due to the stimulation of non-specific resistance factors.

**Khashchuk V.S.**

## **ADHESIVE BOWEL OBSTRUCTION SIMULATION AT DIFFERENT SURGERIES IN EXPERIMENTAL TRIALS ON RATS**

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According to scientific studies surgery performed on adhesive bowel obstruction account for 2.4% of the total number of operations on the abdominal cavity organs. There is no need to peritoneal defects, because the mesothelium present in the abdominal cavity located on these defects, is implanted and prevents the formation of adhesions. Obstruction that develops later than 3 weeks after surgery is associated with the transformation of new connective tissue into fibrous scar tissue. Adhesive bowel obstruction can be suspected on the basis of symptoms, physical examination and risk factors. Usually to confirm the diagnosis, identify the location of the obstruction and complications such as ischemia, necrosis and perforation modern methods of examination are required. Adhesions are not always symptomatic; however, in many patients, adhesions lead to a wide range of complications that occur months or even many years after surgery. Adhesion-related complications include small bowel obstruction, infertility in women, chronic abdominal or pelvic pain, and difficulty in relaparotomy.

In experimental investigation we assessed intraperitoneal adhesions with different surgical pathologies, such as anastomosis of the small intestine, anastomosis of the large intestine and intestinal ischemia. The purpose of investigation is to study stages of abdominal adhesions in rats according to Zühlke scale (0-4) at that surgeries.