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69

МАТЕРИАЛЫ НАУЧНОЙ КОНФЕРЕНЦИИ  
СТУДЕНТОВ-МЕДИКОВ С МЕЖДУНАРОДНЫМ  
УЧАСТИЕМ

# ВОПРОСЫ СОВРЕМЕННОЙ МЕДИЦИНСКОЙ НАУКИ

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новорожденных были разделены на две группы. 1 группа 25 новорожденных, которые имели в анамнезе контакт с ОРВИ. 2 группа новорожденных с пневмонией у которых отсутствовали признаки ОРВИ. Новорожденным было проведено общеклинический осмотр, рентгенография грудной клетки, общий анализ периферической крови, биохимический анализ крови. **Результаты исследования.** В группе обследуемых больных преобладали мальчики 68%. Новорожденные с пневмонией на фоне ОРВИ в 34,4% случаев находились в крайне тяжелом состоянии и 65% случаев находились в тяжелом состоянии. Важным показателем интоксикации было гектическая температура, либо гипотермия. В группе обследуемых больных наблюдалось цианоз, акроцианоз, одышка, приступы апноэ, западение грудины, втягивание межреберий, жесткое дыхание, укорочение перкуторного звука. У новорожденных, перенесших аденовирусную инфекцию наблюдалась конъюнктивит, ринит, влажный кашель, обильные влажные и сухие хрипы над легкими. При гриппе наблюдался нейротоксикоз. При герпетической инфекции наблюдалась острая недостаточность надпочечников, что клинически характеризовалось мраморностью кожных покровов, одышкой и геморрагическим синдромом. Также в 1 группе новорожденных наблюдалась конъюгационная желтуха - 48,2% по сравнению со второй - 33,3%. В 60-70% случаев пневмония осложнялась кишечной симптоматикой, у 13 больных, в сочетании токсикоз с эксикозом, у 11 детей, с лейкоцитозом, у 17 больных до  $13,8 \times 10^9/\text{л}$  и ускорение СОЭ у 6 больных до 18мм/ч. Также у 25% новорожденных наблюдалась одышка. При сравнении можно выделить, что при пневмонии на фоне ОРВИ генерализованная реакция преобладала над местной. На фоне катаральной симптоматики у 75% больных остро возникало беспокойство, напряжение большого родничка, мозговой крик, температурная реакция была не выражена, от 37,8 до 38,8. Локальные изменения в легких были скудные, ослабленное дыхание, единичные влажные хрипы в нижних отделах на фоне выраженной одышки, втяжения межреберных промежутков и цианоз в покое. Рентгенологические признаки интерстициальной пневмонии. У больных с пневмонией без контакта с ОРВИ, наоборот вначале появлялась одышка, кашель, повышенные температура до 39, признаки обструкции, хрипы "оральные", аускультативно в легких жесткое дыхание с мелкопузырчатыми хрипами. Рентгенологические очаговые тени с инфильтрацией. **Выводы.** Клинико – рентгенологические изменения при неонатальной пневмонии на фоне ОРВИ настораживают по атипичным особенностям течения патологического процесса.

#### **FETURES OF ANTIBIOTIC RESISTANCE OF ENTEROBACTERIACEAE SPP. FAMILY AS A CAUSATIVE AGENT OF URINARY INFECTION IN CHILDREN OF CHERNIVTSI REGION**

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Antibiotic resistance of urinary infection causative agent is an extremely serious problem in modern pediatric nephrology. The aim of the study was to establish a modern variety and possible regional features of antibiotic resistance of Enterobacteriaceae family bacteria, as the main group of UTI causing agents among children, depending on the age of the patients living in Chernivtsi region, and variants of the infection course in them. A bacteriological examination of 2432 urine samples of pediatric patients (0-18 years) in hospitals of Chernivtsi region has been carried out in order to verify the "urinary tract infection": 793 of them (32.61%) were boys and 1639 (67.39%) were girls. As a result of the study, we singled out 545 strains of Enterobacteriaceae family bacteria (not taking into account, Proteus); the sensitivity of singled out strains to 24 antibiotics has been studied and the dependence of Enterobacteriaceae family antibiotic resistance (not taking into account, Proteus) depending on the age of patients and the course of infection has been established. In urinary infections that are caused by pathogens of Enterobacteriaceae family (not taking into account, Proteus) infectious process is caused by their auto strains. Antibiotic resistance of pathogens that cause acute infectious process among the children, examined in Chernivtsi region, practically does not depend on the patient's age at the time of the disease. The highest percentage of sensitive strains of the Enterobacteriaceae family in acute course of the disease was found (in decreasing order) to fosfomycin, imipenem, fluoroquinolones, amikacin and cephalosporins of the 2-4 - generations ( $p < 0.05$ ). In the case of chronic process, the Enterobacteriaceae family agents (not taking into account, Proteus) evolve, acquiring resistance. There can be a regularity in this process, associated with the patient's age: the strains that are singled out in the examined children under the age of 3 years, resistance to penicillin ( $p < 0.05$ ) develops; among pediatric patients, aged 4-6 years a decrease in sensitivity to fluoroquinolone drugs ( $p < 0.01$ ) is recorded; in the age group of 7-14 years- to cephalosporins ( $p < 0.05$ ).

#### **INDICATORS OF TENSION OF NONSPECIFIC HOST DEFENSE IN NEWBORNS WITH RESPIRATORY FAILURE**

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It is known that peripheral blood neutrophil granulocytes stereotypical provide the initial defense response in infective process and occupy an important place in the humoral-cell cooperation blood and of connective tissue in the neutralization agents of infectious diseases and their toxins. One of the links phagocytosis, which is required for the generation of nonspecific immunity are blood neutrophils of reactive oxygen species in the respiratory explosion. Due to the functional immaturity of newborn of leukocytes with increased propensity to bacterial infections, while non-specific immunity is especially important in the neonatal period. At the same time, the function and role of neutrophils in immune reactions are poorly understood, and there is a perception that the diagnosis of the phagocytic system to be not developed.

The basis of respiratory failure are nonspecific inflammatory response in lung microvessels levels with violation lung homeostasis initiated by activation of neutrophils blood. The factors of aggression of activated neutrophils on aero-hematic barrier in the development process respiratory failure are the proteases, reactive oxygen species, products of arachidonic acid metabolism that initiate and support the process of nonspecific pulmonary inflammation. The aim of our study was to investigate the activity of neutrophils in the peripheral blood of newborns with respiratory failure on indicators of oxygen dependent activity. To achieve the goal involved two comparison groups. I (mostly) group included 52 of neonates with respiratory failure on a background of diverse neonatal pathology. The second group (control) were compared 15 practically healthy newborns who were treated in the Department of Pathology newborns with hypoxic-ischemic concerning damage to the central nervous system mild degree. Activity of blood neutrophils was evaluated oxygen dependent indicators of metabolic activity according to of spontaneous and stimulated recovery NBT-test by the method of Park B.N. et al. in modification Klimov V.V. et al. Statistical analysis of results of research carried out using variational statistical under the program StatSoft Statistica v.5.5. The results of the study found that when respiratory failure increases oxygen metabolism of neutrophils ( $35.4 \pm 5.95\%$  to  $16.29 \pm 0.7\%$ ,  $p < 0.05$ ) by type excessive response, as indicated by decrease in activated neutrophils metabolic reserve ( $10.2 \pm 2.56\%$  vs  $23.9 \pm 2.1\%$  (control),  $p < 0.05$ ), indicating that the depletion in these metabolic processes. Despite the fact that the NBT test as a whole reflects the degree of activation oxygen dependent metabolism, believe that the "respiratory explosion" neutrophils to secrete extracellular environment of reactive oxygen species. In his turn active forms of oxygen cause damage of biological membranes due to peroxidation of proteins and lipid peroxidation that in the conditions of systemic of inflammatory reaction manifested at the level the endothelial a microvascular bed. Thus, in newborns with respiratory failure there is an activation of blood neutrophils. 2. Investigation of metabolic activity of the neutrophils should be used as a diagnostic marker parenchymatous type of respiratory failure in newborns with respiratory distress syndrome.

### NONATOPIC BRONCHIAL ASTHMA

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Among chronic respiratory diseases in children leading place is held bronchial asthma. One of the important aspects of inadequate control of asthma is determined by its phenotypic heterogeneity. The aim of the study was to evaluate the indices of bronchial hyperresponsiveness and lability in school-age children with atopic and nonatopic phenotypes asthma. In pulmonary department of Children Regional Clinical Hospital (Chernivtsi, Ukraine) examined 64 children, suffering from bronchial asthma. To identify the degree of atopy used anamnestic atopic status and skin allergic tests. According to a survey, 38 children with atopic asthma phenotype formed first clinical group (I), and the remaining 26 patients with nonatopic asthma joined the second (II) clinical group. For the main clinical features comparison group did not differ significantly. Bronchial lability was determined by assessing bronchial response to dosed physical load (DFL) and inhalation of short-acting  $\beta_2$ -agonists. Research of bronchial hyperresponsiveness was performed using a standardized inhalation histamine test. In children with atopic asthma phenotype observed tendency to more expressive lability ( $23.2 \pm 2.7\%$  vs.  $18.1 \pm 2.8\%$ ,  $p > 0.05$ ), mostly due to significant dilatation in response to inhalation of  $\beta_2$ -agonists ( $11.8 \pm 1.9\%$  vs.  $7.6 \pm 1.9\%$ ,  $p > 0.05$ ). Bronchodilation index with values over 20% pointed to the relative risk of atopic phenotype of 1.9 (95% CI 0.2-13.9) at odds ratio 17.4 (95% CI 2.1-142.1). Expressive bronchial lability (lability index  $> 30\%$ ) recorded more frequently in patients with atopic phenotype of the disease (26.3% vs. 16%;  $p > 0.05$ ). So, expressive bronchial lability point to the relative risk of atopic asthma 1.2 (95% CI 0.4-3.5) with odds ratio 1.8 (95% CI 0.5-6.8). Bronchial hyperresponsiveness was more expressive in children with atopic asthma phenotype. In particular, PC20H was  $1.3 \pm 0.3$  mg/ml in patients of I group vs.  $2.2 \pm 0.8$  mg/ml of a comparison group ( $p > 0.05$ ). Expressive bronchial hyperresponsiveness (PC20H  $< 0.6$  mg/ml) point to the relative risk of atopic asthma 1.6 (95% CI 0.8-3.3) with odds ratio 3.9 (95% CI 1.3-11.7). It was found that children with atopic asthma is characterized by a tendency to expressive bronchial lability, mostly due to dilation response to short acting  $\beta_2$ -agonists, and expressive airway hyperresponsiveness to histamine. However, in the verification of atopic asthma phenotype in children, bronchial lability index ( $> 20\%$ ) and the bronchodilation index ( $> 30\%$ ) were specific (96% and 84%) with low sensitivity (42% and 26%).

### PECULIARITIES OF INVASIVE DIARRHEA IN CHILDREN AT THE CURRENT STAGE

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In recent years, acute bowel diseases in children rank second among all infectious diseases, second only to respiratory problems. These diseases take third place in frequency causes of death in the group of children under 5 years. Every year from acute intestinal infections in the world is dying up to 1 million children. Salmonellosis takes a leading place in the structure of diarrheal diseases of bacterial etiology, in Ukraine during 2009-11 years the morbidity of salmonellosis is characterized by increasing. However, the world each year is registered about 165 million cases of shigellosis, including 70% of diseases observed in children under 5 years of age. On the territory of CIS countries every year is registered about 1 million cases of shigellosis in children under 14 years. Shigellosis is caused deaths annually 1 million people, two thirds of