

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ  
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



## **МАТЕРІАЛИ**

**105-ї підсумкової науково-практичної конференції  
з міжнародною участю  
професорсько-викладацького персоналу  
БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ  
присвяченої 80-річчю БДМУ  
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Матеріали підсумкової 105-ї науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) – Чернівці: Медуніверситет, 2024. – 477 с. іл.

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У збірнику представлені матеріали 105-ї підсумкової науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) із стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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In 4 weeks after treatment, signs of inflammation of CO were diagnosed in only 9.1% of patients of 1a and 14.3% of patients of 2a subgroups, against 45.5% of patients of 1b and 42.8% of patients of 2b subgroup, respectively. Complete eradication of *H. pylori* was not achieved in any treatment subgroup, but we noted a better effect in children who received complex treatment (in subgroup 1a – 90.9%, 1b 68.2%; 2a – 85.7%, 2b – 64.3 %).

**Conclusions.** Therefore, under the conditions of using AHBТ with the inclusion of an immunocorrective agent as an adjuvant component in children with *H. pylori* CagA(+), the relative risk of relapse will decrease by 2.33 times with the number of patients who need to be treated (PNT) 1.57 compared using only protocol therapy. The inclusion of AHBТ in the protocol treatment of children with IDUGIT with CagA(-) *H. pylori* will reduce the relative risk of relapse by 5.33 times at PNT 1.32.

**Ostapchuk V.G.**

## CONTENT OF INTERLEUKINS IN THE BLOOD OF CHILDREN SICK WITH STOMACH AND DUODENAL ULCER DISEASE

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**Introduction.** Ulcer disease is a higher manifestation of a chronic inflammatory process with destruction of the mucous membrane of the stomach and duodenum. Inflammation is a universal protective and adaptive reaction of the body in response to any damage, one of the manifestations of which is a multicomponent mediator cascade that ensures the process of inflammation - from swelling and destruction to restoration of the integrity and functional activity of the organ. The literature contains a number of data on the dynamics of the interleukin profile in peptic ulcer disease. It is believed that the balance between pro- and anti-inflammatory interleukins changes in different phases of the disease, which ensures the quality of healing of the ulcer defect.

**The aim of the study** was a comprehensive study of the content of pro-inflammatory (IL-8, IL-1 $\beta$ ) and anti-inflammatory (IL-4 and IL-1RA) interleukins in the blood of children with peptic ulcer disease.

**Material and methods.** A comprehensive clinical and laboratory-instrumental examination of 219 children aged 7-18 years (average age 12.3 $\pm$ 2.6 years) was carried out: 115 children with peptic ulcer disease (main group) and 104 healthy individuals (comparison group) who lived in Chernivtsi and Chernivtsi region. All children who were under observation underwent a thorough paraclinical examination according to the generally accepted methods - a general blood test, biochemical blood parameters, a blood sugar test, a general urinalysis, a stool analysis for the presence of helminth eggs, a co-program, a study of intestinal microflora. Determination of the level of IL-1 $\beta$ , IL-8, IL-4 and IL-1RA in the blood of children was carried out using standard enzyme immunoassay kits of reagents "Interleukin-1beta-IFA-Best" (series A-8766), "Interleukin-8-IFA-Best" (series A-8762), "Interleukin-4-IFA-Best" (series A-8754), "Receptor antagonist IL-1-IFA-Best" (series A-8764) manufactured by CJSC "Vector BEST". The research was carried out using an enzyme-linked immunoferritin assay Stat-Fax-303 (Vo-Shi, USA).

**Results.** It has been found that in children with peptic ulcer there is an increase in the concentration of serum interleukins compared to healthy individuals (Tab.).

Table

Indicators of interleukins in the blood serum of examined children (M $\pm$ m)

Group of children	Interleukins, pg/ml			
	IL-1 $\beta$	IL-8	IL-4	IL-1RA
Main (n=115)	87,4 $\pm$ 3,8*	98,7 $\pm$ 4,8*	45,1 $\pm$ 2,9*	1303,9 $\pm$ 49,6*
Comparison (n=104)	11,6 $\pm$ 2,1	12,4 $\pm$ 2,6	8,2 $\pm$ 2,3	368 $\pm$ 12,9

Note. \* – the difference is probable with respect to the indicators of the children of the comparison group, p<0,01.

Thus, the level of pro-inflammatory interleukins in children of the main group was 7.8 times (IL-1 $\beta$  – 7.5 times, IL-8 – 8.0 times), and anti-inflammatory – 3.6 times (IL-4 – 5.5 times, IL-1RA – 3.5 times) higher than that in children of the comparison group ( $p < 0.01$ ). Moreover, it is worth noting that the content of pro-inflammatory interleukins increased almost twice as much as anti-inflammatory interleukins.

**Conclusion.** The content of pro-inflammatory interleukins in blood serum is 7.8 times higher, and anti-inflammatory interleukins are 3.6 times higher, than in healthy children of the corresponding age.

**Popelyuk N.O.**

## **SPECIFIC FEATURES OF THERAPY FOR VIRAL DISEASES IN YOUNG CHILDREN ACCORDING TO PEDIATRIC DEPARTMENT DATA**

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**Introduction.** According to the Public Health Center of the Ministry of Health's Ukraine data, over 1.3 million Ukrainians have fallen ill with acute respiratory infections (ARI), the flu, and COVID-19 since the beginning of October 2023. Compared to the previous year, which was also marked by military conflict, it increased in almost 41% in absolute numbers. Statistically, 15% of these cases involve children. According to the latest CDC data, the COVID-19 virus is mutating again and maintaining its presence. Symptoms of the new strain include sore throat, cough, sneezing, malaise, nasal congestion, changes in smell perception, and asthenia. It's alarming that pediatric clinics are gradually filling up with a little seriously ill patients again. Under the war conditions, where the civilian population and life-supporting infrastructure have become targets of armed attacks, children have become the most vulnerable group. That is why the treatment of respiratory diseases remains a priority in modern pediatrics.

**The aim of the study.** The aim of this study was to identify the peculiarities of the clinical course of respiratory viral infections in young children under contemporary conditions, based on the data from the pediatric department of the municipal children's clinical hospital in Chernivtsi, with the goal of optimizing treatment regimens for these diseases.

**Material and methods.** According to the data from the pediatric department of the municipal children's clinical hospital in Chernivtsi, there has been a significant increase in the number of children with various manifestations of acute respiratory infections (ARI) since the fall of 2023. In the pediatric department from October to December 2023, 365 children under the age of 5 were treated with a diagnosis of ARI. Among them, 30% are children under the age of 1. 50% of the patients are children from large families and temporarily displaced individuals, who mainly reside in dormitories with a high concentration of residents and unfavorable living conditions.

**Results.** In all cases, an atypical course of the disease was noted. The clinical picture predominantly featured temperatures up to 40°C for 3 days, dry unproductive cough with a gradual increase in breathlessness. Auscultation revealed crackling bilateral wheezing and moist fine rales. In the blood clinical analysis, there was moderate leukocytosis and lymphocytosis. Radiographic examination indicated signs of obstructive bronchitis, and no data suggestive of bronchopneumonia were found in any of these cases. Rapid COVID-19 tests were negative for all patients. In 100% of cases, for the purpose of differential diagnosis with bacterial infections, the levels of procalcitonin and C-reactive protein (CRP) were determined. Selectively (in 45% of cases), virological research (enzyme-linked immunosorbent assay, ELISA) was conducted to detect CMV, EBV, Bordetella pertussis. In 12% of cases during the examination, Mycoplasma pneumoniae and Chlamydia pneumoniae were detected, explaining the clinical manifestations of the disease. Children treated in the pediatric department of the municipal hospital received symptomatic therapy: antipyretic drugs were administered, and cough syrups were not used for patients under 1 year old. Inhalation therapy with selective beta-2-adrenoreceptor agonists and steroids (Budesonide, Fluticasone) was applied in the presence of obstructive syndrome, and for Grade 2 DN, systemic steroids (dexamethasone 0.5 mg/kg per day) were used for a short course. Antibacterial therapy was administered only when