### 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 05, 07, 12 лютого 2024 року

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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.

Загальна редакція: професор Геруш І.В., професорка Грицюк М.І., професор Безрук В.В.

Наукові рецензенти: професор Братенко М.К. професор Булик Р.Є. професор Гринчук Ф.В. професор Давиденко І.С. професор Дейнека С.Є. професорка Денисенко О.І. професор Заморський I.I. професорка Колоскова О.К. професор Коновчук В.М. професор Пенішкевич Я.І. професорка Хухліна О.С. професор Слободян О.М. професорка Ткачук С.С. професорка Тодоріко Л.Д. професор Юзько О.М. професорка Годованець О.І.

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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

Department of Pediatrics, Neonatology and Perinatal Medicine Bukovinian State Medical University

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 Creactive 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 bacterial infection was confirmed. Azithromycin was prescribed at 10 mg/kg per day if suspected of pertussis, and for intracellular infection, azithromycin, clarithromycin (Fromilid) up to 10 days. Physiotherapeutic procedures were not conducted.

**Conclusions.** According to modern perspectives, positions regarding the therapy of respiratory viral diseases have been somewhat reconsidered. Preference is given to an individualized approach to the patient and symptomatic therapy. Antibacterial therapy is not administered.

# Ryznychuk M.O. ADRENOGENITAL SYNDROME, MANIFESTATIONS IN GIRLS DURING PUBERTY

Department of Pediatrics and Medical Genetics Bukovinian State Medical University

**Introduction**. Non-classical form of adrenogenital syndrome (NC-AGS) is one of the most common causes of hyperandrogenism in girls, especially in adolescence. In a study of more than 1000 women with hyperandrogenism, 0.6% had the classical form of adrenogenital syndrome, and 1.6% had the non-classical form. The peculiarity of the manifestation of this form of the disease is postnatal androgenization of varying degrees of severity without a clear delineation of the age period. The non-classical form of 21-hydroxylase deficiency is a "mild" variant of the disease. The residual activity of 21-hydroxylase in this form is 20-60% and occurs with an average frequency of 1:1000 newborns. The incidence of NC-AGS in the general population is about 0.3%, but in some ethnic groups it may be as high as 3.7%.

The aim of the study was to investigate the peculiarities of the course and treatment of adolescent girls with non-classical form of adrenogenital syndrome.

Material and methods. We studied 8 patients aged 14-17 years with non-classical form of adrenogenital syndrome who were inpatients of the pediatric department of Chernivtsi Regional Children's Clinical Hospital. The patients were examined and their physical and sexual development was evaluated. All patients also underwent potassium and sodium ions and blood sugar levels, X-ray of the hands ("bone" age), genetic testing to determine the child's sex (karyotype). All girls underwent a gynecological consultation, pelvic and adrenal ultrasound, and hormonal tests. All patients were treated with dexamethasone. In addition, serum levels of LH, FSH, estrogens, and prolactin were determined. Statistical processing of the data was performed using the Statistika software package.

**Results**. Allgirls under study had a female karyotype (46 (XX)). There were signs of hyperandrogenism (hirsutism, acne vulgaris, increased skin oiliness) in 100% of cases, secondary scleropolycystic ovaries (62.5%), and ovarian-menstrual cycle disorders (100%). Assessment of physical development showed a slight acceleration of growth of 1-2 cm in 50% of the girls compared to the general population. The bone age corresponded to the passport age in 100% of cases. Hypomenstrual syndrome was noted in 37.5% of cases, secondary amenorrhea in 25.0%, and uterine bleeding in 37.5% of cases. Algomenorrhea was present in all cases. The development of the mammary glands corresponded to the age (100%). Examination of the external genitalia revealed Prader I virilization (50%). Ultrasound examination of the pelvic organs revealed secondary scleropolycystic ovarian disease (PCOS) in 62.5% of cases. No changes in the size of the adrenal glands were detected by ultrasound (100%). Blood levels of potassium, sodium and glucose were normal.

Hormone levels were as follows: cortisol level averaged 13.2±1.02 mcg/dl (normal 6.2-19.4 mcg/dl), 17-hydroxyprogesterone - 0.98±0.11 ng/ml (normal 0.1-0.8 ng/ml); free testosterone - 59.3±0.37 pg/ml (normal up to 9 pg/ml), DEAS - 501.32±0.05 mcg/dl (normal 65. 1-368.0 mcg/dl), ACTH - 33.2 pg/ml (normal up to 46 pg/ml), LH - 7.8 mIU/ml (normal 2.4-12.6 mIU/ml), Prolactin - 8.3±0. 2 ng/ml (normal 4.7-16.7 ng/ml), FSH - 8.3±0.1 mIU/ml (normal 2.5-12.5 mIU/ml), estradiol - 33.6 pg/ml (normal 12.5-166.0 pg/ml). All patients had a positive result in the dexamethasone test. Treatment with dexamethasone was 1/8 to 1/2 tablet once a night, sometimes every other day (100%). In 33.3% of cases, antiandrogens (cyproterone acetate) were prescribed together with dexamethasone.