

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



МАТЕРІАЛИ

**106-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького колективу
БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ
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якості життя. Найгірші показники немоторних проявів спостерігаються при акінетичній ригідності та змішаних формах та швидкопрогресуючому перебігу ХП.

СЕКЦІЯ 13 АКТУАЛЬНІ ПИТАННЯ КЛІНІЧНОЇ ПЕДІАТРІЇ

Bogutska N.K.

ANALYSIS OF THE USE OF UNPROVEN METHODS IN THE SYMPTOMATIC TREATMENT OF BRONCHIOLITIS AT DIFFERENT STAGES OF PATIENT MANAGEMENT

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Introduction. Bronchiolitis (B) is a common respiratory infection in infants and young children, primarily caused by viral pathogens. Evidence-based management protocols for B generally emphasize supportive care – such as oxygen therapy and hydration – over pharmacological interventions. However, unproven methods in the symptomatic treatment of B are sometimes used and may include interventions like bronchodilators, corticosteroids, or antibiotics, despite a lack of consistent evidence supporting their effectiveness.

The aim of the study. To explore the prevalence of use of these unproven treatment methods of B at different stages of patient care, including initial diagnosis and hospitalization before COVID-19 period, and to analyze why some methods continue to be used despite limited evidence.

Material and methods. Detailed analysis was conducted on 69 cases (ages 1-6 months, 67% male) with a confirmed «B» diagnosis from the total of 132 inpatient records from the regional children's hospital archive (of patients who were admitted or discharged with a diagnosis of «B» in 2017-2018). A clinical and epidemiological analysis was conducted using STATISTICA.

Results. The proportion of preterm children among those with B was 15.9%. Two-thirds of the children were breastfed, one-third came from large families, and one in four children with B was unvaccinated. A third of the sick children had contact with ill family members, and one in four was hospitalized in severe condition and admitted to the ICU. The SpO₂ level upon hospital admission ranged from 68% to 98%. In the pre-hospital stage, one-third of the children were prescribed corticosteroids (dexamethasone in 50% of cases), beta agonists in 4%, and mucolytics and antiviral medications in 20%. In the hospital, 80% of patients were prescribed corticosteroids (with dexamethasone used in 46% of cases), isotonic NaCl via nebulizer in 70%, and bronchodilators in 40%; beta agonists were given to 10%. A delayed improvement in condition was directly associated with the use and prolonged duration of antiviral therapy, nebulized saline, mucolytics, and corticosteroids. The use of beta-2 agonists, corticosteroids, and nebulized saline was associated with a later onset and longer duration of oxygen support ($r=0.26-0.35$; $p<0.03$). A delayed improvement in condition was directly associated with the use and prolonged duration of antiviral therapy, nebulized saline, mucolytics, and corticosteroids. Unproven methods might be introduced in initial management stages, often due to uncertainty or attempts to relieve distressing symptoms. At the hospitalization stage where patients are under more intense medical supervision even though supportive care is emphasized, before pandemic most practitioners still resorted to methods like nebulized treatments, driven by parental expectations or other reasons. It might be caused by the challenges faced when medical professionals feel pressure to «do something» to alleviate long lasting B symptoms, potentially leading to over-treatment. After discharge for ongoing or recurrent symptoms, families may continue seeking symptomatic treatments that lack robust evidence, including alternative medicine or prolonged use of nebulizers, which may affect recovery or even prolong symptoms due to unnecessary interventions. Reasons why unproven treatments are still in use are the influence of past practices, anecdotal evidence, parent expectations, or old institutional protocols that have yet to be updated.

Conclusions. The primary issue in managing patients with B is the use of medications not recommended by treatment standards, especially corticosteroids (prescribed to over 80% of children), along with numerous other non-evidence-based methods during inpatient treatment in the pre-COVID period. According to correlation analysis, the use of various non-evidence-based therapies for B was associated with delayed improvement in the children's condition, a longer stay in the ICU, and a prolonged need for respiratory support.

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ASSOCIATION OF BRONCHIAL ASTHMA AND VITAMIN D CONTENT IN CHILDREN DEPENDING ON THE AMOUNT OF BASIC THERAPY

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Introduction. Bronchial asthma (BA) is a fairly common chronic inflammatory disease in children with nonspecific airway hypersensitivity accompanied by clinical signs of breathing difficulties and airflow limitation. Inhaled glucocorticosteroids (IGCS) are considered to be the most effective in the treatment of asthma, with less frequent and less severe side effects than oral corticosteroids, but safety concerns with high doses of IGCS still remain.

The aim of the study. To determine changes in serum vitamin D concentration in children with asthma depending on the amount of basic IGCS therapy.

Material and methods. On the basis of the Chernivtsi Regional Children's Clinical Hospital, 158 children with persistent bronchial asthma (pBA) were comprehensively examined. Three clinical comparison groups were created according to the equipotent doses of inhaled glucocorticosteroids (IGCS), which the examined patients received as part of the basic therapy of asthma. The first (I) group consisted of 57 children treated with low-dose equivalent IGCS (36.1%), the second (II) comparison group consisted of 60 patients treated with medium-dose equivalent IGCS (38.0%), and the third (III) group consisted of 23 peers who controlled asthma with high-dose IGCS (14.5%).

Results. The obtained results of vitamin D concentration less than 30.0 ng/ml was most often found in patients of group III, which reached 21.7% of cases, and was never noted in the control group ($p < 0.01$), which was characterized by the following indicators of clinical and epidemiological risk $OR = 1.3$, $RR = 1.2$, $AR = 7.2\%$. Moreover, it was found that a decrease in asthma symptom control was inversely related to serum vitamin D concentration for the clinical and instrumental assessment scale at $r = -0.24$ ($p = 0.01$), for the GINA questionnaire - $r = -0.14$ ($p = 0.05$) and was also noted with increasing severity of the disease - $r = -0.19$ ($p = 0.016$). The detected correlations are weak, but statistically significant, which determines the role of an important regulator of phosphorus-calcium metabolism - hydroxycholecalciferol - in the clinical course and persistence of asthma in children.

Conclusions. Thus, it can be concluded that new data have been obtained on the importance of 25-hydroxycholecalciferol (vitamin D) in patients receiving IGCS as part of the basic treatment, because when using high doses of these drugs, a decrease in its concentration below the optimal level occurs in every fifth patient (21.7%, $p < 0.001$) and correlates with loss of control over asthma symptoms ($r = -0.24$, $p = 0.01$), as well as with an increase in its severity ($r = -0.19$, $p = 0.016$).

Garas M.N.

MORBIDITY OF RESPIRATORY VIRUSES AMONG IN-PATIENT CHILDREN AT THE FINISH OF COVID-19 PANDEMICS

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Introduction. Respiratory viruses are a leading cause of illness in children, ranking first globally among infectious diseases and accounting for 95% of all infections. About 1.5 billion cases of acute respiratory diseases are registered annually. Influenza viruses and other respiratory viral infections cause mass outbreaks, becoming epidemic and sometimes pandemic.