МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
НАЦІОНАЛЬНИЙ ФАРМАЦЕВТИЧНИЙ УНІВЕРСИТЕТ
КАФЕДРА КЛІНІЧНОЇ ЛАБОРАТОРНОЇ ДІАГНОСТИКИ

V ВСЕУКРАЇНСЬКА НАУКОВО-ПРАКТИЧНА ДИСТАНЦІЙНА КОНФЕРЕНЦІЯ «СУЧАСНІ ДОСЯГНЕННЯ ТА ПЕРСПЕКТИВИ КЛІНІЧНОЇ ЛАБОРАТОРНОЇ МЕДИЦИНИ»

Збірник тез конференції

27 травня 2026 рік
ХАРКІВ

The obtained findings indicate that contemporary advancements and transformative innovations in clinical laboratory diagnostic sciences have significantly strengthened the scientific and clinical foundations of modern oncohematology. The integration of molecular technologies, advanced analytical methodologies, precision diagnostics, and interdisciplinary laboratory-clinical collaboration contributes substantially to early disease detection, accurate prognostic evaluation, individualized therapeutic management, and improved healthcare outcomes among patients with hematological malignancies.

Contemporary clinical laboratory diagnostic sciences have become an indispensable and strategically important component of modern oncohematology, significantly contributing to the advancement of precision oncology, individualized therapeutic management, and evidence-based healthcare practices. The rapid development of molecular diagnostics, immunophenotyping systems, cytogenetic investigations, genomic sequencing technologies, and advanced analytical methodologies has substantially improved the accuracy, sensitivity, specificity, and prognostic value of laboratory investigations associated with hematological malignancies. These scientific and technological innovations have transformed traditional diagnostic approaches and enabled more comprehensive understanding of the molecular, genetic, and immunological mechanisms underlying oncological hematopoietic disorders.

The conducted scientific discourse demonstrated that modern laboratory medicine plays a decisive role in the early identification, classification, therapeutic monitoring, and prognostic assessment of leukemia, lymphoma, multiple myeloma, myelodysplastic syndromes, and other malignant hematological diseases.

COMBINED THERAPY WITH LORATEDINE AND *BUPLEURUM AUREUM* EXTRACT AS A MEANS OF CORRECTION OF IMMUNOINFLAMMATORY AND OXIDATIVE DISORDERS IN ALLERGIC RHINITIS IN IMMURE RATS

Pasynchuk I. I., Naboka O. I.

National University of Pharmacy, Kharkiv, Ukraine

pasynchukk@ukr.net

Introduction. Allergic rhinitis is one of the most common IgE-mediated diseases, characterized by the development of a systemic immunoinflammatory response, hyperproduction of IgE, activation of mast cells and eosinophils, as well as the release of inflammatory mediators, in particular histamine and proinflammatory cytokines. An important role in the pathogenesis of the disease is played not only by immune mechanisms, but also by oxidative stress, which increases mucosal damage and maintains the chronic course of the inflammatory process. Modern pharmacotherapy of allergic rhinitis is based mainly on the use of antihistamines, but their effectiveness is not always sufficient for the complete correction of immunoinflammatory and oxidative disorders. In this regard, the search for combined approaches that allow influencing different pathogenetic links of the disease is relevant.

The aim of the research. To study the effectiveness of loratadine monotherapy and its combination with thoroughwax dry extract in correcting clinical, immunological, hematological, and oxidative disorders in ovalbumin-induced allergic rhinitis in immature rats.

Materials and methods. The experiment was conducted on 31 immature white male rats weighing 70-100 g, aged 2 months. The animals were kept in standard vivarium conditions (temperature 18-24 °C, humidity 50-60%, natural light, free access to water and food). All manipulations were performed in accordance with the European Convention for the Protection of Vertebrate Animals (Strasbourg, 1986) and the principles of Good Laboratory Practice (GLP). The allergic rhinitis model was induced by systemic sensitization with ovalbumin with subsequent intranasal provocation, which ensures the formation of an IgE-mediated immune response and clinical manifestations of allergic rhinitis. The animals were divided into 5 groups: intact control; control pathology; (3–4) loratadine (0.15 and 0.25 mg/kg); combination of thoroughwax extract at a dose of 10 mg/kg and loratadine (0.15 mg/kg). Clinical manifestations of rhinitis, hematological parameters (leukocytes, eosinophils), IgE and

IL-6 levels, as well as oxidative stress parameters (TBK reactants) and catalase activity were assessed. Statistical analysis was performed using jamovi 2.6.44 and Excel (Real Statistics). Welch's t-test, ANOVA/Welch ANOVA or Kruskal-Wallis test with appropriate post hoc tests were used.

Results and discussion. In the control pathology group, the development of severe allergic rhinitis was observed, accompanied by intense clinical manifestations (sneezing, rhinorrhea, itching), an increase in the total clinical score to 8.0 (7.5; 8.5). A significant increase in the number of eosinophils (10.8 times) and leukocytes (1.6 times) was also observed, which indicates the activation of the systemic immune response. Additionally, an increase in the level of IgE and IL-6 was detected, which confirms the involvement of Th2-mediated mechanisms and systemic inflammation. Disturbance of the oxidative balance was manifested by an increase in TBC reactants and a compensatory increase in catalase activity. Loratadine monotherapy led to a decrease in clinical manifestations and a decrease in the level of IL-6 but did not provide complete normalization of IgE and oxidative indicators. This indicates the limited effect of antihistamine therapy on deep immunopathological mechanisms. The most pronounced therapeutic effect was observed when using the combination of loratadine with thoroughwax extract, which was manifested by a decrease in the clinical score to 5.0 (5.0; 5.75), normalization of IgE and IL-6 levels, a decrease in TBA reactants and a more balanced catalase activity. The results obtained indicate that the combination therapy provides an effect not only on the histamine-mediated phase of the allergic reaction, but also on the immunoinflammatory and oxidative mechanisms that shape the chronic course of the disease.

Conclusions. Thus, ovalbumin-induced allergic rhinitis in rats is accompanied by the development of IgE-mediated immune response, systemic inflammation and oxidative stress. Loratadine monotherapy provides partial correction of clinical and biochemical disorders but does not normalize immunological and oxidative changes completely. The combination of loratadine with thoroughwax extract provides a more pronounced therapeutic effect, which is manifested by the normalization of clinical,

immunological and oxidative indicators. The advantages of combined therapy are due to the synergistic effect on histamine-mediated, inflammatory and prooxidant mechanisms of the pathological process. The results obtained justify the prospect of further research into the combined use of loratadine with thoroughwax extract as a potential approach to pathogenetic therapy of allergic rhinitis.

CLINICAL AND LABORATORY DIAGNOSIS OF ENTEROBIOSIS

Pidgaina V.V., Matviichuk O.P., Matviichuk A.V.
National University of Pharmacy, Kharkiv, Ukraine
matviychukelen@gmail.com

Enterobiasis is a human parasitic disease, the causative agent of which is the human pinworm (Enterobius vermicularis), a milky-white spindle-shaped helminth, the length of the male is 3-5 mm, the female is 8-12 mm, the eggs are colorless, transparent, the size is 50-60 x 20-30 microns, the shape of the egg is oval-asymmetric, human infection occurs when swallowing mature pinworm eggs, which contain motile larvae. The pathogen parasitizes in the lower part of the small intestine and the upper part of the large intestine, which is its only host. Mostly children are affected, but there are cases among the adult population. The mechanism of transmission of the disease is fecal-oral, the contact-household route of transmission is significant. The main factor is hands contaminated with helminth eggs, as well as contaminated (dirty) household items (door handles, surfaces of furniture, windows and window sills, dishes, toys, children's pots), and less often - contaminated food products.

The basis of the pathogenic effect of pinworms on the human body is the mechanical effect of helminths on the intestinal mucosa, associated with irritation of mechanoreceptors and chemoreceptors during their fixation and movement. Clinical manifestations of enterobiasis depend on the intensity of infection. The main clinical symptoms are abdominal pain, morning intestinal discomfort, nausea, frequent formed bowel movements up to 4-5 times a day. Irritation of the ileocecal area leads to the possibility of developing enterocolitis. When penetrating the vermiform appendix,