Міністерство охорони здоров'я України Державний заклад "Запорізька медична академія післядипломної освіти Міністерства охорони здоров'я України"



# ТЕЗИ ЗА МАТЕРІАЛАМИ

ХІV ВСЕУКРАЇНСЬКОЇ НАУКОВО-ПРАКТИЧНОЇ КОНФЕРЕНЦІЇ МОЛОДИХ ВЧЕНИХ З МІЖНАРОДНОЮ УЧАСТЮ "АКТУАЛЬНІ ПИТАННЯ КЛІНІЧНОЇ МЕДИЦИНИ"

20 листопада 2020 року

УДК 61 (063)

A 43

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Тези за матеріалами: XIV Всеукраїнської науково-практичної конференції молодих вчених з міжнародною участю «Актуальні питання клінічної медицини» (20 листопада 2020 р., м. Запоріжжя) – Запоріжжя, 2020. – 320 с.

Відповідальність за вірогідність фактів, цитат, прізвищ, імен та інших даних несуть автори. У тезах збережено авторське подання матеріалів.

## DYNAMICS IN THE NUMBER OF PAS<sup>+</sup> - CELLS IN LUNG OF GUINEA PIGS WITH EXPERIMENTAL ALLERGIC INFLAMMATION

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The urgency of the problem of allergic respiratory diseases is growing steadily in Ukraine and around the world. The intensity of the manifestation of reactions of the structural components of the lungs in the allergic inflammatory process primarily depends on the local immune and neuroendocrine systems of the respiratory system. At present, the question of the reaction of the components of the local link of the innate immunity of the respiratory system in allergic inflammation in most aspects remains open.

The purpose of the work. We have established dynamics in the number of PAS+ - cells contained neutral glycoproteins as part of the local innate immunity in the lung of 48 guinea pigs with experimental allergic inflammation by experimental, histochemical (PAS-reaction), morphometric and statistical methods.

Results. There are morphological changes, such as increase in number of PAS<sup>+</sup> - goblet cells, hypersecretion of mucus and surfactant, functional hyperactivity of type II pneumocytes and alveolar macrophages in the early stages of the development of allergic inflammation. In all group in experimental animals number of PAS+ - goblet cells has a tendency to increase compared to control animals. The increasing of amorphic substance and thickening of fibrous structures evidenced by more intense (+++) staining during the PAS-reaction, compared with the intact and control groups, were pronounced in the early period of the development of experimental ovalbumininduced allergic inflammation in the peribronchial and perivascular connective tissue. In animals of control group in the number of PAS<sup>+</sup> - cells in the respiratory part of the lung of guinea pigs reaches 2.25±0.05 at 10000 μm<sup>2</sup>. In experimental animals at the 23rd day after the start of the experiment (early period of the development of an allergic inflammatory process in lung) in the number of PAS<sup>+</sup> - cells in alveoli and interalveolar septa increases statistically up to 7.75±0.2 at 10000 μm<sup>2</sup> compared to control animals. In experimental animals at the 30th day after the start of the experiment (early period of the development of an allergic inflammatory process in lung) there is a continuing tendency of a higher content of PAS<sup>+</sup> - cells in alveoli and interalveolar septa compared to control animals (5.5±0.11 at 10000 μm²). The number of PAS<sup>+</sup> - cells in alveoli and interalveolar septa in the experimental animals at the 36rd day after the start of the experiment (late period of the development of an allergic inflammatory process in the lung) is statistically significantly higher than in control group (3.75±0.11 at 10000 μm<sup>2</sup>). At the 36th days after the start of the experiment,

the number of PAS + - cells in the respiratory part of the lung decreases gradually and approaches the indices of the intact and control groups by the 44th day of the experiment. The obtained dynamics of number of goblet cells and PAS<sup>+</sup> - cells in the airways and the respiratory part of the lung explains the most pronounced manifestations of nonspecific mechanisms of resistance of the respiratory system in the early stages of the development of allergic inflammation. Adaptive immune responce manifestats in late period of development of allergic inflammation by increase in number of lymphoid nodules.

Conclusion. The histological and histochemical analysis of guinea pigs' lungs on the 23rd, 30th, 36th and 44th days of experimental ovalbumin-induced allergic inflammation made it possible to establish the morphological manifestations of nonspecific resistance of the lungs, which are represented by protective and compensatory changes in their structural components. Therefore, the results of this study suggest that the epithelium of the airways and the respiratory part of the lungs, the secretory products of the epithelial cells of the lungs and components of the connective tissue are important modulators of the inflammatory and immune responses of the lungs due to affect of allergens.

#### ANXIETY IN PATIENTS WITH PARKINSON'S DISEASE

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**Introduction:** Anxiety is not only a personality trait, but also has adaptive functions. It may differ in patients with Parkinson's disease (PD). According to the literature, anxiety affects up to 40% of patients with PD. It is a behavioral change that has the greatest impact on patients' quality of life. However, anxiety is very often underestimated and not diagnosed in such patients. Currently, there is little data on the structure of anxiety in patients with PD.

**Material and methods:** the level of anxiety was assessed according to the Spielberg-Khanin questionnaire in 60 patients with PD II-III stages. Situational anxiety (SA) characterizes the level of stress (state of anxiety) at the moment, and personal anxiety (PA) - vulnerability to stressors in general. The result was interpreted as follows: up to 30 - low anxiety; 31 - 45 - moderate anxiety; 46 and more - high anxiety.