

DAMAGE TO THE RESPIRATORY SYSTEM

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Abstract: The article covers the scientific information of medicine about inflammations in the respiratory system and various allergic diseases in young children. Various ways of treating respiratory diseases are classified in the clinical conditions of the patient.

Keywords: pneumonitis, pleurisy, pneumonia, rheumatoid granulomas, respiratory system.

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At the time of birth, the nasal cavity of a child is small and thin, it is provided with mucous membrane, blood and lymph vessels, nerve fibers, receptors and small hairs, and it is underdeveloped. In addition, the forehead sinuses and the lower nasal passage are not developed at all. After the age of 2, the sinus cavity begins to enlarge, and the sinuses of the forehead are fully formed at the age of 15. At birth, the child breathes in the belly. Breathing begins at the age of 3-4, and gender differences appear at the age of 7-8. Boys have belly-type breathing, and girls have chest-type breathing. This process is completed at the age of 14-15. By 10-14 years, the shape of the nasal cavity changes and increases in size. The size of the nasal cavity increases approximately 2.5 times with age[1]. When breathing, the air entering from the outside environment is warmed, moistened and cleaned of dust particles when it passes through the nasal cavity. After that, the air in the nasal cavity passes through the larynx to the larynx[2].

Damage to the respiratory system is common in systemic immune-inflammatory diseases. According to the latest data, 25% of patients die from complications of damage to the bronchus-pulmonary apparatus in rheumatic diseases[3].

It is known that damage to the respiratory system is mainly explained by the occurrence of pneumonitis, pleurisy, pneumonia, rheumatoid granulomas.

The condition of the bronchi, the characteristics of changes in respiratory activity, the possibilities of their early diagnosis remain almost unexplored. In clinical practice, damage to the bronchus-pulmonary system is mainly accompanied by 2 symptom complexes: pneumonitis and vasculitis of pulmonary vessels. The clinic of the lung syndrome is bilaterally symmetrical and is

characterized by damage to the basal parts of the lungs. Due to the growth of connective tissue in the pleura, it is possible to take a preventive approach and carry out adequate treatment in studying the mechanisms of the development of fluid accumulation, pulmonary hypertension, condition and other complications. Scientific research on identifying early clinical symptoms of bronchopulmonary injury, evaluating them in functional tests, and studying their immunological characteristics is almost rare. While the above-mentioned cases show the relevance of the studied problem, it is necessary to develop methods of examination that allow early detection of changes in respiratory organs, as well as effective methods of their prevention and elimination[4].

The history of the study of cytokines began in the 40s of the 20th century. In this period, for the first time, cachectin factor in mine plasma was studied in connection with tumor necrosis leading to cachexia. In 1979, the term "interleukin" was recommended to systematize them. However, since the biological effect of cytokines on the immune system is very wide, the term "cytokine" has been accepted and kept until now. The study of cytokine molecules is the key to identifying the developing pathology in humans[5]. They constitute a large family of molecules, perform the function of cell messenger interaction and mediator, and control the immune status of autoimmune, oncological, inflammatory processes in various diseases.

In the last stages, the cell's cytokine production is completely lost. After the silicification process is over, the production of cytokines begins again. The nature of the stimulation of cytokine production in the thymus is still being studied. Regulation of cytokine production is controlled by peptide hormones and cytokines themselves, forming a "small cytokine network" in the thymus. In recent years, the methodological study of cytokines from a quantitative point of view has become of great importance in understanding the nature of several norms and pathologies.

Its main feature is the destruction of tumor cells and cells damaged by the virus through apoptosis. inhibits lymphocyte proliferation, erythro-, myelo- and lymphopoiesis, but has a radioprotective effect[6]. By stimulating the formation of phagocytes in a medium concentration, it has a pyrogenic effect, has a hormone-like effect, enhances coagulation, suppresses appetite in chronic diseases, and causes cachexia. In recent years, several studies by Russian and American researchers have revealed a very strong anti-inflammatory effect. It activates and controls the division of many cell types, has effects such as cytokines, chemokines, nitric oxide, reactive oxygen species, prostaglandins, leukotrienes, molecule adhesion, lymphoid tissue growth. In other words, it is a strong focused immune response that collects all inflammatory cells at the site of inflammation, forces these cells to produce an "inflammatory cocktail" and, as a result, destroys the

inflammatory aggressor. It has partially intersecting, synergistic and additive activity. It is very important in the regulation of immune response and tissue homeostasis at physiological concentrations, and at high concentrations it has a pathological endocrine-like effect. can inhibit the proliferation, differentiation and function of almost all types of cells and serves as a mediator of cytotoxicity. as a result of its release, permeability of capillaries increases, vascular endothelium is damaged and intravascular thrombosis develops.

An increase in its concentration causes an increase in disease activity and systemic damage. In particular, atmospheric pollution in some regions of Uzbekistan has caused allergic diseases in the respiratory system of young patients[6]. For example, in the Karakalpagistan region, lung diseases among children are very developed. A relatively new family of cytokines that directly induce directed movement or leukocyte migration, are induced by their secretion and involve leptin and insulin, and have antimicrobial activity, induce the expression of adhesion molecules, and promote the migration of leukocytes through the endothelium to the extracellular matrix[7] the widespread spread of dust caused the spread of respiratory diseases of the population.

Adhesion molecules are proteins located on the surface of various cells, thanks to which intercellular interactions are carried out, allowing cells to move under the endothelium. 3 families of adhesion molecules: integrins, selectins and immunoglobulins are distinguished. The role of environmental conditions is very important in the healthy functioning of the organism. Pulmonary apoptosis is controlled by a signaling system. Chemical enterprises have a very high negative impact on the respiratory system.

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