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THE INFLUENCE OF ENVIRONMENTAL FACTORS ON ALLERGIC MORBIDITY IN CHILDREN

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Abstract: this article provides information on AIDS and HIV infection, transmission routes, disease prevention, and recommendations for promoting a healthy lifestyle among young people.

Keywords: AIDS, HIV, disease, human, virus, organism, doctor, health, immutility, examination, system, period, bacteria, blood.

Researchers have determined that a reliable risk factor for the disease is an unfavorable indoor environmental situation and environmental pollution. The effects of non-allergenic factors are aggravated **by climatic and geographical zones .** According to domestic authors, a direct dependence of the prevalence of atopic dermatitis on the degree and nature of environmental pollution has been discovered, and in areas with an unfavorable environmental situation, the manifestation of skin manifestations occurs at an earlier age [3 , 7].

Harmful industrial emissions create an increased load on the immune system. The nature of the vegetation in a given area, the altitude above sea level, absolute and relative humidity, temperature variability, and duration of sunshine are of great importance. But it should be taken into account that increased sensitivity to climatic and geographical features is detected mainly in visitors, and not in the indigenous population of such regions [4].

Today, the population living in industrial areas has a much higher chance of contracting respiratory diseases caused by industrial pollution than people living in rural areas. Among the numerous pollutants of the natural environment, heavy metals are considered the most dangerous. They conventionally include chemical elements with an atomic mass of over 50, possessing the properties of metals or metalloids [5 , 1 2].

Currently, a new direction has emerged in allergology – allergotoxicology, which studies the influence of environmental pollution factors (toxic substances) on the induction, manifestation and maintenance of allergic reactions.

In conditions of environmental pollution, the number of airborne allergens increases. There is a close relationship between them and allergens that cause the development of atopy and respiratory symptoms of allergic diseases. In addition, conditions are created for higher tissue reactivity of the mucous membranes of the respiratory tract to both specific allergens and non-specific irritants, especially in individuals with an atopic predisposition [6 , 18].

According to Abelevich M.M. (2012), the frequency of atopic diseases currently ranks first among the most common chronic diseases in childhood. Atopic dermatitis in children living in areas with a high degree of

environmental pollution causes more severe homeostasis and adaptation disorders. Xenobiotics additionally suppress the immune system, which is already altered by allergies. Dysfunctions of vegetative regulation occur, which, in turn, negatively affect the adaptation and immunity system. This complex pathogenetic mechanism of emerging disorders gives specific features to the course of atopic dermatitis in children from the environmental pressure zone: the disease is chronic, with frequent exacerbations, pronounced laboratory changes, refractoriness to conventional therapy [1].

The problem of the influence of a wide range of environmental factors on the human body, in combination with medical-social, medical-organizational risk factors, currently seems to be a pressing, socially significant problem. According to WHO, on average, the state of the natural environment contributes up to 30% to changes in human health, and in areas of ecological distress this contribution is significantly greater; in Russia this figure is no less than 15% [16].

Assessing the role of adverse effects on the human body caused by environmental pollution is a major task in medicine and has enormous medical and social significance. This task is of particular importance for pediatrics, which deals with a growing organism that is sensitive to any impact. It has been established that among the causes that negatively affect the health of the population, the environmental component exceeds 20% [15].

The increase in the prevalence of allergic diseases among the population, including children, noted over the past two decades is largely associated by most researchers with environmental pollution (air, water, soil with chemical compounds) [17].

Atopic dermatitis, which develops mainly in childhood, is one of the most common skin diseases and is characterized by a complex pathogenesis affecting all organs and systems. According to some authors, there is a relationship between the incidence of atopic dermatitis and regional environmental conditions [10 , 11].

Russia is one of the countries with an unfavorable environmental situation. According to WHO, about 15% of its territory is occupied by zones of ecological disaster and emergency ecological situations. More than 50 million people live in cities where the level of air pollution systematically exceeds the maximum permissible concentrations by 10 or more times. About 50% of drinking water consumed by the population does not meet hygienic requirements. In addition, Russia is characterized by a low level of climate comfort [15].

The regional feature of allergopathology in the Sakha Republic (RS) of Yakutia is the prevalence of allergic skin diseases. Thus, according to some data, allergic dermatoses make up 41.44% of all forms of allergic diseases, and atopic dermatitis (AD) - 22.3%, in the older age group of RS children, the prevalence of AD is 20.6%, which exceeds the world average by 3 times. In this regard, the study of AD in children in the conditions of Yakutia is particularly relevant [9].

The results of the conducted studies of the analysis of the environmental situation and the dynamics of statistical indicators of morbidity and disability in allergic pathology in children in various regions of Russia for the period 2001-2005 allowed I.I. Balabolkin to establish the relationship between the incidence of bronchial asthma, allergic rhinitis, atopic dermatitis and disability in them with the ecological and geographical features (comfortable climatic conditions, level of air and water pollution) of the subjects of the Russian Federation. When rehabilitating children with allergic diseases, it is recommended to improve the sanitary and hygienic indicators of the environment, long-term monitoring of their health and their recovery, taking into account the complex impact of man-made pollution on the child's body [2].

The impact of adverse environmental impacts on the human body is due to rapid, often irrational industrialization, chemicalization, creating conditions for the accumulation of toxic substances in the

external environment. The establishment of sanitary standards for the content of xenobiotics, of course, restrains the process of degradation of the external environment, but these standards are not always and everywhere followed punctually enough [6 , 12].

Despite the obviousness of exogenous influences, clear evidence of their connection with childhood pathology is only established in cases of severe violations of sanitary standards [14].

Thus, rapid development of civilization is associated with an increase in allergic diseases as a result of pollution of water, soil, air, the use of food products containing synthetic, genetically modified and other harmful components, fertilizers, xenobiotics and other factors.

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