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THE INFLUENCE OF ENVIRONMENTAL FACTORS IN THE DEVELOPMENT OF ATOPIC DERMATITIS DISEASE IN CHILDREN

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Abstract:
The prevalence of atopic dermatitis (AD) is increasing worldwide. Literature data suggest that the incidence of AD in developing countries is gradually approaching that of developed countries, where AD affects 20% of the pediatric population. Such an increase, which is associated with a significant variation in prevalence in different countries, emphasizes the importance of environmental factors in the onset of the disease. These include hygiene, exposure to bacterial endotoxins, living outdoors with contact with animals, air pollution, weather, and diet. Only a systematic study of all these elements can best illuminate the epidemiology of AD.

Keywords: Atopic dermatitis, environmental factors, illness, atmospheric pollution, the risk factor.

Introduction

Relevance of the problem:

Currently, environmental factors have a direct effect on the body and are considered the leading factor in the emergence of various chronic diseases. Diseases of the ENT organs, diseases of the immune system, bone-muscle system, skin and urogenital diseases are common in children. According to the data of the World Health Organization, atmospheric air pollution is one of the leading factors in children's illness and makes 30%. In this case, environmental pollution is 20%, climate change is 10%. In different regions of our republic, the indicators of children's morbidity are different. For example, children living in cities have more ecopathologies than those living in rural areas, due to the fact that there are more polluting objects in cities. Many diseases in children living in environmentally unfavorable regions tend to be protracted and chronic. According to scientists, preventive vaccination of children living near large polluting factories is often less effective. As can be seen from the above data, the direct impact of the environment and atmospheric air pollution are the leading factors in the increase in the number of diseases. A lot of scientific and research works on this topic have been carried out, but now modern industrial regions and motor vehicles are being produced in various districts, which are the reason for the pollution of the atmospheric air composition with various "modern" harmful factors.

Allergic diseases have become widespread in recent decades: according to official statistics, 30-40% of the world's population suffer from allergies today.

The increase in the prevalence of allergies, especially among children, as well as the emergence of severe, atypical forms of allergic diseases that are resistant to conventional therapy, is associated with the increase in the use of antiallergic drugs. About 12 billion dollars are spent annually on their purchase in the world, and yet, in the last 20 years, for example, the incidence of atopic dermatitis has doubled. According to official statistics, for example, in Russia, 240-250 people were diagnosed with atopic dermatitis per 100,000 people examined for the first time [2].

Thus, the total cost of bronchial asthma treatment in the Russian Federation reaches 13.8 billion rubles. Social and economic damage caused by bronchial asthma is 3 million working days every yearloss, 10 million school days missed, 468,000 hospitalizations, and 1.8 million urgent and emergency care services.

In the United States, the cost of drug treatment for bronchial asthma is 1% of health care costs. The world's population spends a large amount of money on the purchase of anti-allergic drugs every year, while the number of deaths from allergies and bronchial asthma has doubled. The widespread prevalence of allergic diseases in the world allows the development of various predisposing factors and immunological disorders in the pathogenesis of allergies. The spectrum of allergens is expanding, new allergens are appearing, interactions between groups of allergens are developing [1].

Over the past 40 years, there has been a steady increase in the number of patients with atopic dermatitis, often from childhood, with a decrease in vital and social functions.leads to limitation [3, 8].

Atopic dermatitis is one of the most common chronic non-infectious diseases in childhood. International studiesaccording to the results, its prevalence among children in the USA is 17%, in Europe - 15.6%, in the Russian Federation - from 6.2% to 15.5%. The share of atopic dermatitis in the structure of allergic diseases in children is 50-75 percent [7, 11, 13].

In recent years, the incidence of atopic dermatitis has increased. In Europe, the incidence of atopic dermatitis in children born before 1960 ranged from 1.4% to 3.1%, and in children born between 1960 and 1970, the incidence of atopic dermatitis ranged from 3.8% to 8.8%. With atopic dermatitis in children born after 1970the incidence increased to 20.4% [8, 10].

In recent years, epidemiological studies conducted abroad have given an idea of the prevalence of atopic dermatitis in different parts of the world and in different ethnic groups. The incidence of atopic dermatitis is 15.0 or more per 1000 population.

Recent studies show that atopic dermatitis is on the rise worldwide. For example, if from 1960 to 1964 the incidence rate among twins under 7 years of age in Denmark was 3%, in the period from 1975 to 1979 this rate was 12% [12].

A 1979 study of schoolchildren in Swedenshowed that atopic dermatitis was 7%, and in 1991 it was 18%. In addition, the explanation for the constant increase in atopic dermatitis is the increase in exposure to house dust and food components, the decrease in

breastfeeding time, and the increase in the attention of parents and doctors to this disease [6].

However, DM Ashcroftand according to other authors [65], the duration of breastfeeding does not affect the development of atopic dermatitis (1077 children of different ethnic groups and social strata were examined).

of Finnish authorsstudies show a low prevalence of atopic dermatitis: in 1980, according to a survey of parents and a study of medical records, this figure was 4.3%.[5]

In addition, the highest rates were recorded in urban areas, and the lowest rates were recorded in rural areas. The incidence of atopic dermatitis varies among different racial and ethnic groups. For example, in a study of 322 children presenting to a dermatology clinic, 13.4% of Asian children and 14.1% of children of other ethnic groups were diagnosed with AD. In a study of 693 adolescents in London schools, AD was found in 16.3% of immigrants from the Caribbean; 8.8% of children are natives of Asia; 8.7% of European and 4.7% of Negroid race - identified in the population of Africa [9].

Thus, the high level of atopic dermatitis in children, the early chronic formation of the process, the medical and social importance of the problem associated with the development of disabling forms of dermatosis require the need to improve specialized medical care, conduct medical examinations of children with atopic dermatitis, introduce new tools and methods of pathogenetic therapy, and preventive measures. is enough.

Analysis of literature sources shows that the rapid development of industry, transport, urbanization, as well as the adoption of new technologies has led to a noticeable increase in the amount of harmful substances that have a negative impact on people and the environment.

In recent decades, in the conditions of scientific and technical progress, the increase in the prevalence of allergic diseases among the population, including children, is attributed by most researchers to environmental pollution (pollution of air, water, soil with chemical compounds).

The impact of harmful factors of the environment on the human body is fast, often due to irrational industrialization and chemicalization, which creates conditions for the accumulation of toxic substances in the environment. The rapid development of civilization is associated with an increase in allergic diseases due to water, soil, air pollution and the use of food products containing synthetic, genetically modified and other harmful components, fertilizers, xenobiotics and other factors.

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