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ALLERGIC DISEASES IN CHILDREN IN THE REPUBLIC OF UZBEKISTAN

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Abstract

The priority areas of the state policy for the development of health care are the protection of children's and adolescents' health, timely provision of their high-quality and effective medical care and the organization of an active fight against non-communicable diseases. As part of the health care reform, government decrees have changed the principles of providing specialized allergological care to patients - its structure, management, which has led to the need to improve the system of providing medical care and prevention to children with allergic diseases in the Republic of Uzbekistan.

The health of children is often considered one of the most reliable indicators of the degree of environmental pollution. The literature has accumulated a fairly large number of facts indicating a direct relationship between the health of the child population and the levels of air pollution. It has been established that harmful environmental factors can cause the development of chronic pathology of all organs and systems, in particular: the immune system, respiratory organs, gastrointestinal tract, liver, endocrine and a number of other systems. Large industrial cities are turning into centers of acute environmental problems. According to epidemiological studies, 25-30% of the population of developed industrial countries have various allergic manifestations [1,3]. One of the reasons for the development of allergic diseases in children is environmental pollution factors, living in an ecologically unfavorable area. Unfavorable environmental factors can act directly as allergens [2]. The problem of the relationship between the state of the environment and human health in the Republic of Uzbekistan is becoming increasingly relevant every year. Taking this fact into account, the Government of the country and the Ministry of Health pay great attention to the problems of early diagnosis of diseases and rehabilitation of frequently ill children. The President of the country I. Karimov declared 2016 the year of "Healthy Mother and Child". Pollution of the natural environment and its impact on human health are closely correlated with each other, which can be seen when analyzing data on the incidence rate, emissions of pollutants into the atmosphere from stationary sources, discharge of contaminated wastewater into water bodies, formation of toxic waste, accessibility of the population to drinking water and water quality, etc.

Keywords: Allergy, prevalence, risk factors, atopic dermatitis, atopic rhinitis.

Introduction

In recent years, the prevalence of allergic diseases (AD) has increased in all age groups worldwide. The results of international epidemiological studies indicate a high prevalence of AD, the values of which range from 1–3% in adults to 10–24% in children of the entire population. At the same time, its prevalence and incidence rates vary significantly in different countries,

which may be important in terms of identifying risk factors for diseases and development and methods of its prevention.

The aim of the study is to study the prevalence and risk factors of allergic diseases in children in the Republic of Uzbekistan.

Materials and methods of the study:

The analysis of official data on the prevalence of allergic diseases in children was carried out on the basis of studying the data of the annual reporting form for 5 years (from 2018-2023), in the multidisciplinary hospital at the academy, in the department of " Allergoneurology of children and adolescents" and factors contributing to the development of diseases were identified. This center territorially corresponds to the administrative boundaries of the city of Tashkent.

To determine the prevalence of allergic diseases among children living in industrial cities (Chirchik, Angren, Almalyk and Bekabad in the Tashkent region), a survey was conducted among 900 schoolchildren aged 7-8 and 13-14 years. These cities are industrially developed (mining and metallurgical plant, aluminum plant, chemical industry, etc.) . Analysis of dry atmospheric fallout in the cities of the Tashkent region showed that the coarse fraction of solid particles contains sulfates, nitrates, hydrocarbonates and their share is determined by the composition of anthropogenic emissions. Pollution of atmospheric air and drinking water potentiates the growth of atopic pathology in children and, especially, in adolescents, increasing as the time of exposure to a growing organism increases, which is manifested in a greater growth of atopic pathology in adolescents, compared with children, and a more pronounced correlation with pollutants . The survey results were compared with official data on the prevalence of allergic diseases among children in these cities.

Research Results

When analyzing the data on cases of patients' visits with the main diseases, the allergoneurology department was divided into three groups. The first group consisted of children with respiratory pathology. These include diseases such as bronchial asthma, all forms of obstructive bronchitis, hay fever, allergic rhinitis and nasopharyngitis. The second study group consisted of allergic diseases associated with the skin with gastrointestinal tract disorders. These include such diseases as atopic dermatitis, urticaria, toxicoderma and toxic vasculitis. And the third group consisted of children with neurological disorders who received treatment in the allergoneurology department for cerebrovascular diseases and all diseases with CNS damage.

At the same time, the average prevalence of diseases in children under 18, divided into groups, increased from 2018 to 2023, the largest proportion were children with disorders of the central nervous system. When studying the age distribution, the largest number of patients is registered in the group of young children with a consistent decrease in the prevalence rate in older age groups. We studied the results of an epidemiological study of the prevalence of allergic dermatitis in children. Over the past five years, there has been a slight decrease in the incidence of respiratory diseases, but allergic rhinitis has a very high prevalence, which may be due to the climatic and geographical features of the place of residence, as well as environmental factors and endogenous factors.

When studying questionnaires of sick children, the main factors contributing to allergic diseases were identified. For example, in most children under one year, atopic dermatitis is a consequence of food allergies. Almost any product can cause allergic reactions. The nature of food allergies depends significantly on the age of the child.

During the study, we found that in children of the first year of life, the most common causes of atopic dermatitis are cow's milk proteins, cereals, eggs, fish, seafood, etc. And at an older age, AD is also caused by other allergens. According to parents, allergic reactions to bananas, kiwi, persimmon, and pomegranate are becoming more common in children.

Before conducting a survey among schoolchildren, statistical data from polyclinics were studied. Official data for the period from 2012 to 2014 showed that over 3 Research publications, 2015, No. 11 (31) 53 years, the number of children with respiratory diseases and allergic pathology increased by 1.5 times. According to statistical reports, the number of children registered with a dispensary with allergic rhinitis is 12.3%, and adolescents - 20.0%; with bronchial asthma, children - 12.9%, adolescents - 20.6%. In our opinion, these figures do not reflect the true picture of the prevalence of allergic diseases among children living in industrialized cities. In this regard, an attempt was made to conduct a survey among schoolchildren under the international ISAAC program. At first, we adapted the questionnaire to our region, translated it into Uzbek. All schoolchildren were explained the purpose of the questionnaire, and were given explanations regarding each point. The questionnaire according to the international program "ISAAC" is a highly effective "tool" for identifying the first signs of atopic pathology in children and adolescents. Our studies have shown that the prevalence of symptoms of atopic diseases according to the results of the questionnaire using the international system "ISAAC" is several times higher than the official statistics. According to the questionnaire, the prevalence of symptoms of bronchial asthma among eighth-graders reaches 28.4%, and among first-graders 18.8%; symptoms of allergic rhinitis were detected in 53.4% of eighth-graders and 30.5% of first-graders; symptoms of atopic dermatitis - 9.7% in first-graders and 11.7% in eighth-graders. After the questionnaire, all children were registered with us for the purpose of further in-depth study of the state of organs and systems.

Conclusions:

At the age of 3 to 7 years, allergic rhinitis and bronchial asthma occur more often, sensitivity to some food allergens increases and decreases, but the importance of allergens present in the air increases. These can be microscopic mites that live in house dust, plant pollen, pet hair, feathers and down of birds. One of the main factors in the spread of respiratory pathology and an etiologically significant allergen is plant pollen. The main results of the research under the ISAAC program showed that the cardinal symptoms of atopic diseases in schoolchildren are several times higher than the official statistics. For early diagnostics of allergic diseases, especially among children living in ecologically unfavorable areas, it is advisable for general practitioners to conduct a survey of schoolchildren under the ISAAC program. Early diagnostics of allergic diseases will help prevent serious complications and disability. To minimize the negative impact of air pollutants on public health, the republic has a corresponding legislative and regulatory framework. The creation of the National Register of Pollutant Emissions and Transfer will improve air quality management throughout the republic. Research publications,

2015, No. 11 (31) 54 The results of the survey conducted under the international program "ISAAC" determine the effectiveness and specificity of the questionnaire, contribute to early diagnosis and registration of children with atopic dermatitis, allergic rhinitis and bronchial asthma, and allow this method to be introduced into the program of screening examination of children in educational institutions with the use of questionnaires.

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