American Journal of Interdisciplinary Research and Development
ISSN Online: 2771-8948
Website: www.ajird.journalspark.org
Volume 32, September - 2024

PREVALENCE OF ALLERGIC DISEASE SYMPTOMS AMONG SCHOOL CHILDREN

Abdullaev N. Ch.
Urozaliev S. Yu.
Tashkent Pediatric Medical Institute, Tashkent, Uzbekistan

Abstract
The article examines the prevalence of allergic disease symptoms among schoolchildren living in the Surkhandarya region of the Republic of Uzbekistan.

Keywords: allergic rhinitis, atopic dermatitis, bronchial asthma, symptoms, schoolchildren.

Introduction

The increase in the incidence of allergic diseases worldwide has reached such proportions that allergies are called the epidemic of the 21st century.

According to epidemiological studies, 1-50% of the world's population has allergy symptoms.

Epidemiological studies are of great importance for identifying the true prevalence of allergies.

Epidemiological studies currently conducted in various countries note a progressive increase in allergic diseases.

However, the range of fluctuations in prevalence rates is quite large: atopic dermatitis (AD) in children - from 10 to 28%, bronchial asthma (BA) - from 7 to 34%, allergic rhinitis (AR) - from 15 to 28% [5,9,10].

The spread of epidemiological research data is due not only to the peculiarities of the climatic, geographical and environmental situation, but also to the use of non-standardized survey methods.

In recent years, uniform methodological approaches have been used in epidemiological studies of allergic diseases to obtain comparable results.

The most reliable comparable data on the prevalence of allergic pathology were obtained thanks to the **ISAAC (International study of asthma and allergy in childhood)** program, which is an international study of BA and allergies in children based on standardized methods recommended and approved by WHO.

Currently, this program has been widely tested and used in Europe, North and Latin America, Africa, Australia, and is approved by the Ministry of Health of Russia [2,10].

In the Republic of Uzbekistan, studies under the ISAAC program were conducted in Tashkent in 1998-2001.

In the Jizzakh region, the prevalence of AR, BA and AD was studied using the ISAAC questionnaire in 2020 and 2022 [9]. The aim of our work was to study the prevalence of seasonal allergic rhinitis symptoms in schoolchildren of the Surkhandarya region using the standardized ISAAC program.

The study involved doctors of the Regional Multidisciplinary Children's Medical Center and children's allergology offices, employees of the Department of Allergology, Clinical Immunology, and Microbiology of the TashPMI RUZ.

Materials and methods of the study

To assess the prevalence of symptoms of these allergic diseases, from September 2023 to May 2024, schoolchildren from 25 schools located in different districts of the Surkhandarya region of the Republic of Uzbekistan were surveyed.

The first age group (7-8 years old) included 1,441 first-graders, the second (13-14 years old) - 2,112 eighth-graders.

Questionnaires for first-graders were filled out by their parents, eighth-graders answered on their own.

When analyzing the questionnaires, a history of wheezing was noted in 18.58% of schoolchildren - 17.73% of first-graders and 19.36% of eighth-graders.

When comparing the frequency of symptoms depending on gender, it was found that they were more frequent (1.9 times) in boys than in girls in the younger age group; in the older age group, no differences by gender were found.

In the majority (80.37%) of schoolchildren in both groups, the symptoms of wheezing were mild and rare - they recurred no more than 1-3 times a year.

However, in the older age group, according to the questionnaires, frequent (more than 12 times a year) and more severe (accompanied by speech limitation) episodes of breathing difficulty were detected 2 times more often.

Isolated night cough, occurring during a period of relative health, in the absence of symptoms of an acute respiratory disease, was almost 2 times more often observed in children aged 13-14 years. Wheezing during or after physical education classes was also significantly more common 112 (3.5 times) in older children.

A study of the prevalence of AR symptoms showed that 30.03% of children had ever experienced sneezing, runny nose or nasal congestion in the absence of a cold or acute respiratory disease, somewhat more often in eighth-graders (32.02%) than in first-graders (27.68%). The presence of such symptoms in the last 12 months was noted in the questionnaires in 26.10% of children - in 29.66% of eighth-graders and in 22.26% of first-graders.

In 8.17% of children, AR symptoms were combined with conjunctivitis in the form of itching of the eyes and lacrimation, 3.15 times more often in older children. At the same time, only 3.12% of children were registered with AR - 2.97% of first-graders and 3.26% of eighth graders. When analyzing a block of questions aimed at identifying the symptoms of AD, a positive answer to the question of whether they ever had an itchy rash within 6

months was obtained in 12.67% of children - in 18.04% 7-8 years and in 7.68% 13-14 years old. The presence of this symptom in the last 12 months was observed in 4.48% of schoolchildren - in 6.48% of first-graders and in 2.33% of eighth graders. Thus, the symptoms of AD during the year occurred 2.9 times more often in children of the younger age group. The previously established diagnosis of AD was observed in 7.48% of children.

Conclusions

Thus, according to the ISAAC questionnaire, the symptoms of allergic diseases (BA and/or AD and/or AD) were detected in 47.77% of children - 45.81% of first-graders and 49.18% of eighth graders. At the same time, 17.33% of schoolchildren were diagnosed with symptoms of several (2-3) allergic diseases. The combination of AD and AD symptoms was registered in 4.46% of schoolchildren (5.48% of children 7-8 years old and in 3.73% of children 13-14 years old), and AD and AD in 4.87% (in 7.74 and 2.80% respectively). At the same time, the presence of signs of AD and AD was noted in 12.85% of children (10% of first-graders and 14.92% of eighth graders). Schoolchildren in different regions of the Surkhandarya region revealed an unequal frequency of symptoms of allergic diseases: the largest among first-graders in the city of Termez and Zharkugan districts, and the smallest in the schoolchildren of the Boysunsky district. Studies using the ISAAC questionnaire testify to the high prevalence of allergy symptoms in schoolchildren G. Termese - they were detected in 47.77% of children, while the symptoms of AR were recorded with the highest frequency - almost 1/3 schoolchildren, somewhat less often BA symptoms - in 1/5. Signs of AD detected in 12.67% of children were more often present in the history than at the time of the survey. The prevalence of AR and BA symptoms was higher in eighth graders than in first graders, and ATD in first graders.

When comparing the incidence of AP and AD symptoms in our study, with the data of previous studies, there was a trend towards an increase in the frequency of AP and its combined forms. At the second stage of the study, it is planned to conduct a clinical and allergic examination of those schoolchildren who had symptoms of allergies at the first stage.

References

1. Арифов С.С., Косимов К.К., Далиев А.Ғ. Распространенность, факторы риска развития, ключевые аспекты патагенеза аллергического ринита // Болалар хирургияси ва анестезиологияси-реаниматологиясида замонавий ташхисот ва даволаш технологиялари илмий-амалий анжумани. Тезислар тўплами. – Андижон, 2014, апрель.С. 234-235.
2. Вахнина О.А. Пыльцевая аллергия в Республике Коми: клинико-эпидемиологическое исследование: автореф. дис. ... канд. мед. наук: – Москва, 2016. С. 22.
3. Вершинина С.А. Влияние состояния окружающей среды города Волгограда на здоровье человека // Материалы международной научно-практической

конференции, посвящённой 70-летию образования ВолГАУ «Научные основы стратегии развития АПК и сельских территорий в условиях ВТО». - 2014. – С.6-9.
4. Мамутова, П. Ш. Распространенность и особенности клинического течения аллергических ринитов у детей, проживающих в регионе Приаралья / П. Ш. Мамутова, Ш. И. Мамутов, Г. К. Ажиниязова. — Текст : непосредственный // Молодой ученый. — 2022. - № 14 (409). - С. 46-48.
5. Огнев В.А. Эпидемиология астмы и аллергии у детей//Монография: - Щедра садиба плюс. 2015. - С. 336.
6. Орехова, О.Ю. Распространенность сезонного аллергического ринита в Краснодарском крае, вызванного цветением сорных трав, и способы борьбы с амброзией полыннолистной /О.Ю. Орехова, Н.В. Федотова, А.А.Готовчикова [и др.] // Российский аллергологический журнал. - 2016.- Т.2, № 3. - С. 103.
7. Попова И.В., Макарова В.И., Ляпунова Е.В. Распространенность аллергических заболеваний у детей в северном и центральном регионах европейской части России // Экология человека, 2013. – Т. 7. – № 2. С. 40 – 43.
8. Разикова И.С., Халматова Б.Т., Миррахимова М.Х. Атопический дерматит у детей //Методические рекомендации. Ташкент. – 2019.– С. 15.
9. Разикова И.С.,Айдарова Н.П., Байбекова В.Ф.,Каюмова С.Ш. Распространенность аллергических заболеваний среди возрастной группы 0-18 лет населения Республики Узбекистан.//Терапевтический вестник Узбекистана. №2. 2020. Ташкент. С. 174-180.
10. Стандартизированные эпидемиологические исследования аллергических заболеваний у детей: пособие для врачей (Адаптация программы «Международные исследование астмы и аллергии у детей («ISAAC») в России. — М., 1999. — 30 с.
11. Хакимова Р.Ф., Амиров Н.Х., Цибулькина В.Н. и др. Экология и аллергопатология детей. - Казань: Изд-во «Дом печати», 2012. - 311 с.