

## HEREDITY, ALLERGOANAMNESIS AND SEASONALITY IN THE DEVELOPMENT AND COURSE OF ATOPIC DERMATITIS IN CHILDREN

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**Abstract.** *Heredity, allergen anamnesis and seasonality of the disease were studied in 126 children with atopic dermatitis (AD) aged 3 months to 17 years. In many children with AD, worsening of the allergic history is a predictor of the development of atopic dermatitis. At the same time, the analysis of allergopathology among the patients' stomachs revealed that pollinosis (allergic rhinitis) is mainly found. It should also be noted that atopic dermatitis in children is characterized by recurrence and exacerbation of the disease in most cases in the autumn-winter season.*

**Keywords:** *atopic dermatitis, children, allergy history, heredity, seasonality.*

The problem of allergic skin lesions in children is currently one of the most urgent in the practice of dermatologists and pediatricians [12, 13]. Among allergic skin diseases in children, one of the leading places is occupied by atopic dermatitis (AD), the prevalence of which, according to epidemiological studies, ranges from 17 to 25% [6, 7].

A large number of epidemiological studies indicate a higher incidence of allergic diseases in cities compared to rural areas, as well as in economically developed countries compared to countries with developing economies [10, 11].

The high prevalence of atopic dermatitis in the pediatric population, the further growth of its severe forms, the tendency to chronic course, insufficiently studied biomedical and socio-hygienic factors of development determine the relevance of this problem [8, 9].

Atopic dermatitis is a chronic allergic disease that develops in individuals with a genetic predisposition to atopy, having a recurrent course with age—related features of clinical manifestations [1, 3].

Currently, the issues of pathogenesis, diagnosis and treatment of atopic dermatitis in children remain poorly understood [2]. An urgent problem is the study of the influence of heredity and seasonality on the development, clinical course and outcome of the disease [4, 5]. Assessment of the nature of predisposition taking into account the allergeoanamnesis and the study of seasonality is relevant in the study of this problem [13, 14].

This state of affairs dictates the need for research aimed at studying heredity, allergeoanamnesis and seasonality in the development and course of atopic dermatitis in children.

**The purpose of the study.** To study the features of hereditary predisposition, allergeoanamnesis and seasonality in the development and course of atopic dermatitis in children.

**Research materials and methods.** 126 children with various forms of atopic dermatitis aged from 3 months to 17 years who received inpatient treatment in the dermatological department of the Tashkent Pediatric Medical Institute clinic were examined. 64 (50.8%) of the subjects were boys and 62 (49.2%) were girls. To study the features of hereditary predisposition, allergeoanamnesis and seasonality in the development and course of atopic dermatitis, an anamnestic study was conducted for the presence of allergic (atopic) diseases in relatives of children with AD and seasonality during exacerbations of the disease.

**Research results.** The analysis of morbidity among relatives of patients showed the presence of allergic (atopic) diseases of the fathers of 12 children (9.5%), mothers of 15 children (11.9%) of patients, 13 patients (10.3%) had the incidence of grandfather, 7 (5.6%) – grandmother, 14 (11.1%) – uncle, 11 (8.7%) – from an aunt. In 6 (4.8%) children, siblings suffered from the disease. Morbidity in distant relatives on the paternal and maternal lines was observed in 9 (7.1%) children. 39 children (31.0%) did not have a burdened heredity for allergic diseases (Table 1).

**Table 1**

**Incidence of allergic (atopic) diseases among relatives of sick children**

Relatives suffering from allergic (atopic) diseases	Boys		Girls		Total	
	abs.	%	abs.	%	abs.	%
Father	4	3,17	8	6,35	12	9,52
Mother	5	3,97	10	7,93	15	11,9
Sisters	3	2,38	1	0,79	4	3,17
Brothers	1	0,79	1	0,79	2	1,58
Grandfather	5	3,97	8	6,35	13	10,3
Grandmother	3	2,38	4	3,17	7	5,6
Aunt	3	2,38	8	6,35	11	8,73
Uncle	4	3,17	10	7,93	14	11,1
Distant relatives	3	2,38	6	4,75	9	7,13
<b>Total</b>	<b>29</b>	<b>23,0</b>	<b>58</b>	<b>46,0</b>	<b>87</b>	<b>69,0</b>

In total, 87 (69.0%) patients had the presence of hereditary burden of allergic (atopic) diseases.

The analysis of allergopathology in relatives of AD patients on the basis of the collected anamnesis data allowed us to establish that among allergic (atopic) diseases, pollinosis (allergic rhinitis) was more often registered – in relatives of 47 (37.3%) children, chronic urticaria – in relatives of 18 (14.3%) patients, allergic bronchitis with an asthmoid component – in relatives of 13 (10.3%) and allergic conjunctivitis – in relatives of 9 (7.1%) patients (Table 2).

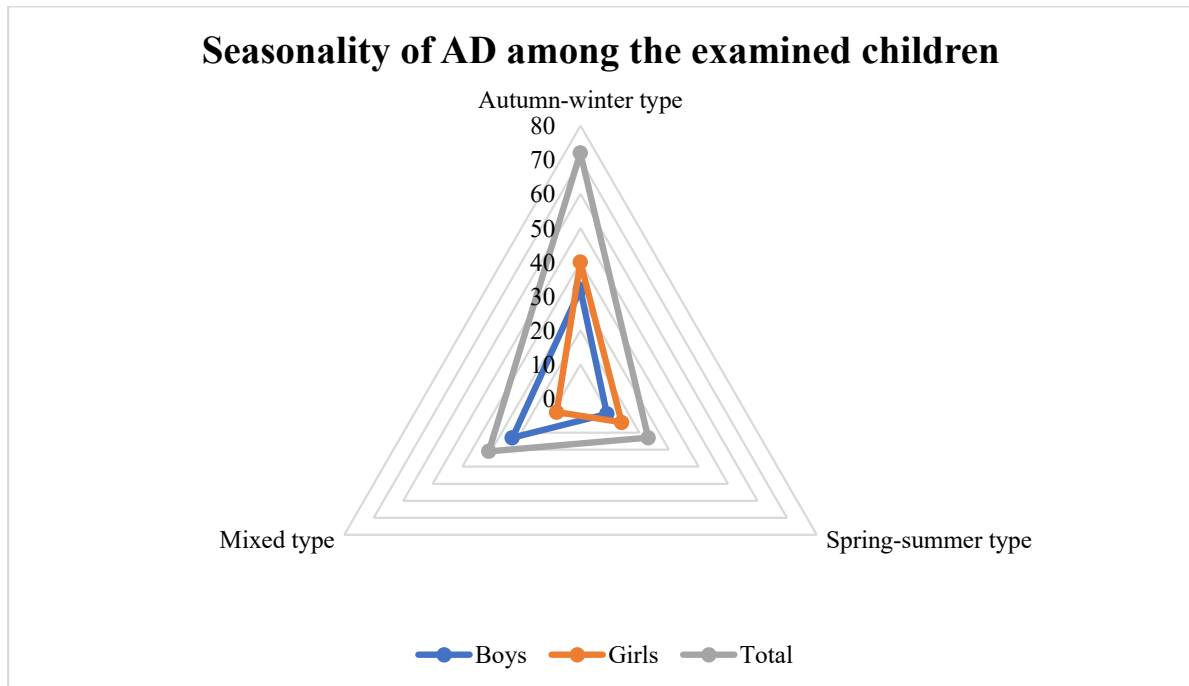
**Table 2**

**Analysis of allergopathology in relatives of children with AD**

№	Pathology	abs.	%
1.	Allergic conjunctivitis	9	7,1
2.	Pollinosis (allergic rhinitis)	47	37,3
3.	Allergic bronchitis with an asthmoid component	13	10,3

4.	Chronic urticaria	18	14,3
	<b>Total</b>	<b>87</b>	<b>69,0</b>

The study of the peculiarities of the seasonality of the disease showed that 72 (57.14%) children with AD had an exacerbation in the autumn-winter period, 23 (18.25%) patients in the spring-summer period and only 31 (24.6%) patients had an exacerbation of the disease regardless of the time of year (Figure 1).



**Figure 1**

**Conclusion.** The data obtained indicate that in most cases, a burdened allergic anamnesis is a predictor of the development of atopic dermatitis in children. At the same time, the analysis of allergopathology in relatives of patients showed that the presence of pollinosis (allergic rhinitis) was most often found in relatives of children with AD. Also, it is worth noting that not burdened heredity for allergic (atopic) diseases does not exclude the development of this dermatosis in children.

In addition, atopic dermatitis in children is characterized by the presence of seasonality of exacerbations with deterioration in the cold season. Thus, the study showed that the majority of children with AD had an exacerbation in the autumn-winter period. It was found that in patients admitted to the hospital with an exacerbation of the disease in the low-sun ("cold") months (from October to March), the disease proceeded with more pronounced symptoms and deterioration of the skin-pathological process.

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