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ARTICLES****CLINICAL FEATURES OF ATOPIC DERMATITIS IN CHILDREN****Khaitov K.N., Abidov Kh.A.\*, Abidov A.M., Karimov B.B., Umarov Yo.M., Yunusova Kh.R.***Tashkent Pediatric Medical Institute, Department of Dermatovenerology,**Pediatric Dermatovenerology and AIDS, Tashkent, Uzbekistan*

The article provides a nuanced exploration of the distinctive clinical characteristics associated with atopic dermatitis in the pediatric population. The article encapsulates a comprehensive overview of the clinical landscape, highlighting key aspects that contribute to a deeper understanding of this prevalent skin condition in children. The article thoroughly addresses the primary clinical manifestations of atopic dermatitis, including pruritus, erythema, and the characteristic distribution pattern of skin lesions. The author's meticulous examination extends beyond the surface, delving into the age-dependent variations in symptomatology, offering valuable insights into how the presentation of atopic dermatitis evolves from infancy to adolescence. Additionally, the article explores the interconnectedness between atopic dermatitis and other allergic conditions, illuminating the intricate relationships that underlie the broader spectrum of pediatric allergic sensitivities. Grounded in up-to-date research findings and clinical observations, this annotated article emerges as an indispensable resource for healthcare professionals, researchers, and individuals seeking a comprehensive grasp of the clinical nuances associated with atopic dermatitis in children. It not only serves as a study tool but also contributes to the ongoing discourse on effective diagnosis, management, and potential avenues for future research in this critical area of pediatric dermatology.

**Keywords:** atopic dermatitis, childhood, clinical features, rashes, SCORAD, dermatology.

**Introduction.** Atopic dermatitis is a chronic inflammatory skin condition, has garnered attention due to its increasing prevalence and impact on individuals' quality of life. Understanding the spread of atopic dermatitis entails examining epidemiological trends, risk factors, and regional variations through the lens of statistical data. This analysis offers insights into the dynamics of the condition's dissemination and informs public health strategies for prevention and management.

Statistical data indicates a notable rise in the prevalence of atopic dermatitis worldwide. Recent estimates suggest that approximately 15-20% of children and 1-3% of adults are affected by the condition [4, 17]. While atopic dermatitis has traditionally been more prevalent in industrialized nations, emerging data point to increasing incidence rates in developing countries, reflecting shifting environmental and lifestyle factors. It is noticed that in the following decades the prevalence of AD disease in developed countries has increased by 2 or 3 times, and the disease has a progressive growth trend [10, 43].

Atopic dermatitis exhibits a bimodal age distribution, with onset typically occurring in infancy or early childhood. Statistical analyses reveal a higher prevalence among children, particularly those under five years old, with decreasing rates in adolescence and adulthood. Gender disparities also exist, with

males more commonly affected during infancy, while females exhibit higher prevalence rates in adulthood [1, 16].

The spread of atopic dermatitis demonstrates notable regional variances influenced by genetic predisposition, environmental factors, and socioeconomic determinants. Statistical data highlights higher prevalence rates in urban areas compared to rural settings, attributed to factors such as air pollution, allergen exposure, and lifestyle changes [40, 44]. Moreover, variations in climate, humidity, and pollution levels contribute to regional disparities in disease burden [21, 23, 29].

Several risk factors contribute to the spread of atopic dermatitis, as evidenced by statistical analyses. Family history of allergic conditions, including asthma and allergic rhinitis, increases the likelihood of developing AD. Additionally, environmental factors such as early-life exposure to allergens, microbial dysbiosis, and dietary factors play a significant role in disease susceptibility and progression [36].

The spread of atopic dermatitis parallels urbanization and industrialization trends, with higher prevalence rates observed in urbanized regions. Statistical data underscores the influence of environmental pollutants, lifestyle changes, and reduced microbial diversity on the development and exacerbation of AD [46, 47, 51]. Furthermore, urban envi-

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ronments may lack green spaces and natural habitats, contributing to decreased exposure to beneficial microorganisms and increased allergic sensitization [48].

Currently, the prevalence of AD in Europe is 15.6%, in the USA it is 17.2%, in Japan it is 24%, and in Russia it is 30-35%, which by itself in the last 3 decades reflects the state of steady growth of atopic dermatitis in annuals [12, 13]. In the structure of general allergic diseases in the Republic of Uzbekistan, AD disease takes the third place and is 9.7%, this figure is 3.52% among adults, 26.14% among children, and 20.32% among adolescents [9]. The analysis shows that the prevalence of AD among the population of all regions is 7.9%, and 1.7% among children of adolescent age. AD disease is observed in most cases in families with many children, and this is caused by the existence of a hereditary predisposition to allergic diseases and unfavorable living conditions, which is the basis for evaluating Uzbekistan as one of the regional characteristics [13, 21].

Three conditions underlie the pathogenesis of AD and characterize the nature of the disease. These are the presence of a genetic predisposition to atopy, the condition of the integrity of the epidermal barrier, and the occurrence of a sequence of immune processes that cause allergic inflammations in the skin [11, 30].

Hereditary factors play a key role in the pathogenesis of AD. More than 20 genes are involved in the development of allergic diseases [6, 32, 39]. A pathogenetically important factor of AD formation is the deficiency of the barrier function of the skin associated with the mutation of the gene encoding filaggrin protein synthesis, which determines the final differentiation of the epidermis and the state of the epidermal differentiation complex [22, 33, 36].

Filaggrin is the main hydrophilic protein of the epidermis, connecting keratin filaments and creating a structural matrix in the keratin layer, directly involved in its barrier function [3, 15, 19, 25]. Deficiency of filaggrin protein subsequently causes inflammation and T-cell infiltration [38, 49]. Hereditary deficiency of filaggrin protein leads to increased expression of pro-inflammatory cytokines. As a result, several epidermal changes are observed in the diseased skin areas of patients with

AD, as well as in healthy skin areas, i.e., an increase in skin pH environment, a decrease in water content, mild excitability, and cases where the skin's permeability to low molecular weight chemicals is exceeded [37].

One of the links in the pathogenesis of AD is the disruption of skin barrier function. An increase in the permeability of the epidermis makes it possible for aeroallergens, infectious agents, and haptens to enter the deep layers of the skin, which causes contact sensitization [30].

The skin of children is characterized by anatomic-physiological development, rapid replacement of the layers of the epidermis, rapid mitotic division in the basal, spiny and granular layers, and a loose arrangement of roughened cells. In early youth, the skin is thin, so it is very sensitive to external factors. High reactivity and sensitivity of the skin, as well as changes in immune processes are observed. An important role in the development of allergic reactions in the dermis is based on the presence of a large number of mast cells. Mediators released by fat cells under the influence of allergens and irritants help increase vascular permeability [4, 6]. In children, the aqueous-lipid mantle of the skin does not provide it with sufficient bactericidal properties, as a result, the pH environment of the skin is characterized by a state of great variability, when maintenance is disturbed and high sweating conditions are observed, the environment is shifted towards alkalosis, resulting in a decrease in the capabilities of the epidermal barrier [14]. A change in the pH environment at the surface of the stratum corneum leads to overgrowth of the microbial landscape and skin infection [7, 45, 50].

In children, AD begins in early infancy and takes the form of chronic-relapsing, childhood dynamics, the symptoms of the disease are manifested as latent to overt symptoms. Symptoms of the disease often appear in the first six months after birth in 60% of cases, and in 90% of cases before the age of 1 year. Diagnosis of the disease is divided by Hanifin J.M., Rajka G., (1980) into 3 periods: infancy (0-2), childhood (2-12) and adolescence and adult (12-23) periods. The course of AtD disease in this form is represented by 5 clinical forms: exudative, erythematous, erythematous-squamous, erythematous-squamous type prone to lichenification, lichenoid and pruriginous forms

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[13, 24].

The course of atopic dermatitis in children is characterized by a continuum depending on age [18, 31, 34]. After the birth of the child, the first manifestation of the disease is manifested by a high level of sensitivity to food products, then their importance decreases, and the sensitivity to respiratory allergens, drugs increase, and the symptoms of the disease are chronic-repetitive in a changing form.

The initial appearance and location of symptoms in almost 89.3% of patients begins mainly in the facial area [35]. In patients, foci are observed on the cheeks, forehead and forehead. In most cases, the location of the main morphological signs of the disease is initially noted in the neck, wrist, lower leg, elbow and knee folds. Symptoms of the disease in foci are redness, a little swelling and swelling. In almost all patients, the course of the disease is manifested in the form of negative conditions, such as itching, restlessness and sleep disturbances.

During the course of atopic dermatitis, patients often have comorbidities. The occurrence of these diseases has a negative effect on the level of disease progression, activity, immunological status and causes the disease to become chronic-repetitive and persistent [2, 8, 26, 41, 42].

Beyond its physical manifestations, atopic dermatitis exerts a substantial toll on the quality of life of affected individuals. Statistical analyses demonstrate higher rates of anxiety, depression, and sleep disturbances among patients with severe or refractory eczema. The relentless itching, discomfort, and visible skin lesions contribute to social stigma and psychological distress, highlighting the need for comprehensive management strategies.

The economic burden of atopic dermatitis is substantial, both at the individual and societal levels. Statistical data reveals significant healthcare utilization, including outpatient visits, emergency department presentations, and hospital admissions among eczema patients. Direct medical costs, such as medication expenses and dermatologic procedures, coupled with indirect costs like productivity loss and absenteeism, further compound the financial impact.

Advances in research and therapeutic interventions have expanded the armamentarium for managing atopic dermatitis. Statistical analyses demon-

strate the efficacy of topical corticosteroids, calcineurin inhibitors, and newer biologic agents in reducing disease severity and improving patient outcomes. Moreover, patient-reported outcomes and real-world evidence contribute to refining treatment algorithms and optimizing personalized care approaches.

Despite progress in understanding and managing atopic dermatitis, several challenges persist. Disparities in access to care, underdiagnosis, and undertreatment remain prevalent, particularly among underserved populations. Furthermore, the rising prevalence of comorbid conditions, such as allergic rhinitis and asthma, necessitates a multidisciplinary approach to holistic patient care. Future research endeavors must prioritize unraveling the underlying pathophysiology, identifying biomarkers for personalized therapy, and developing sustainable healthcare models to alleviate the burden of atopic dermatitis on individuals and society.

The spread of atopic dermatitis is a multifactorial phenomenon influenced by genetic predisposition, environmental exposures, and socio-economic determinants. Statistical analyses offer valuable insights into the epidemiological patterns, regional variances, and risk factors associated with the condition. By understanding the dynamics of atopic dermatitis dissemination, healthcare stakeholders can develop targeted interventions, public health policies, and educational initiatives to mitigate its impact and improve patient outcomes.

The topicality of atopic dermatitis is underscored by its increasing prevalence, profound impact on quality of life, and substantial economic burden. Statistical data serves as a valuable tool in elucidating the epidemiology, treatment patterns, and healthcare outcomes associated with this complex dermatologic condition. By leveraging these insights, healthcare stakeholders can strive towards more effective prevention, diagnosis, and management strategies, ultimately improving the lives of those affected by atopic dermatitis.

Thus, AD can be considered a systemic disease associated with different nosologies. It is possible that the risk of non-allergic diseases depends on the severity of AD. Identifying and understanding these relationships allows to optimize AD therapy on the one hand, and prevents the development of non-

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allergic diseases on the other hand.

**The aim of the study.** To study the features of clinical manifestation of atopic dermatitis in children.

**Materials and methods.** Clinical features of atopic dermatitis were studied in 133 children aged 2 months to 17 years who were treated in the inpatient conditions of the Pediatric dermatology department of the university clinic of Tashkent Pediatric Medical Institute. 64 (48.1%) of them were girls and 69 (51.9%) were boys. Among those examined, 62 (46.6%) urban residents and 71 (53.4%) rural residents. In all patients, the nature of the course of the disease was studied, taking into account the age, gender, duration of the disease and accompanying pathologies.

In order to determine the somatic condition of all patients, their life and medical anamnesis were carefully collected. The anamnesis information includes information about the duration and nature of the appearance and manifestation of the disease, provocation factors, the spread and localization of the process, the used treatment methods and their effectiveness, and the presence of similar symptoms in other family members.

A series of general clinical examinations were performed on patients before and after treatment to determine the adjacent pathology of various organs and systems.

Clinical and biochemical blood laboratory tests were performed in all patients before and after treatment according to standard methods.

We determined the severity of the disease according to the SCORAD (Severity Scoring of Atopic Dermatitis) index, which provides the most accurate and general assessment of various clinical manifestations of the disease (Hanifin, J.M. and Rajka, G., 1980). The index includes the distribution of rashes, their intensity and manifestation of subjective feelings. The index is calculated according to the following formula:

$SCORAD = A/5 + 7 \times B/2 + C$ , where

A – distribution of rashes;

B – inflammatory intensity of the inflammatory process;

C – manifestation of subjective symptoms.

Dissemination of rashes means only acute and subacute inflammatory foci, taking into account that the surface of one palm is 1% of the entire sur-

face of the human body. Inflammatory intensity is the sum of the six most characteristic features of AD: erythema, edema, crusting, excoriation, lichenification, skin dryness.

The manifestation of each sign is evaluated in points:

"0" – no sign;

"1" – mild;

"2" – moderate;

"3" – severe.

Subjective symptoms such as itching and sleep disturbances are rated from 0 to 10 points.

The ratio of points and percentages for each character is as follows:

$SCORAD (0-103) = prevalence/5 (0-20; 19.4\%) + 7 \times manifestation/2 (0-63; 61.2\%) + subjective symptoms (0-20; 19.4\%)$

The SCORAD index is as follows: in mild AD – less than 40 points; in passing with average weight – from 40 to 70 points; in severe cases – from 70 to 103 points.

The results of the investigation were carried out by the method of variational statistics using the Microsoft Office Excel-2010 package, which includes software support for statistical analysis. Variational parametric and non-parametric methods of statistics were used to calculate the arithmetic mean (M), mean square shifts (s), average standard error (m), relative values (incidence, %) of the studied indicator. The statistical significance of the obtained measurements compared to the mean values was determined by calculating the probability of error (r) and the equality of variance (F-Fisher test) when checking the normality of the measurements according to the Student's test (t).

**Results and discussion.** Patient children under 1 year – 31 (23.3%), 1-5 years – 51 (38.4%), 6-10 years – 29 (21.8%) and 11 years and older – 22 (16.5%) patients were children. So, 38.4% of the disease occurred in children aged 1-5 years and 23.3% in children under 1 year of age.

Among the examined children, subjective conditions such as itching were observed in 59 (44.4%) children and various degrees of discomfort (skin pulling, itching, etc.) were observed in 74 (55.6%) children.

According to the clinical form, among 133 children with atopic dermatitis, the erythematous-squa-

mous form of the disease was detected in 56, which was 42.1%, the erythematous-squamous form with lichenification – 41 (30.9%), the exudative form – 18 (13.5%) patients, lichenoid form - 13 (9.8%) patients and pruriginous form – 5 (3.7%) patients.

When the duration of the disease was studied, it was from 2 days to 13 years, including 82 (61.6%) patients – up to 1 year, 32 (24.1%) patients – from 1 to 3 years, 9 (6.8%) patients – from 4 to 5 years and in 10 (7.5%) patients it was more than 5 years. Thus, most 114 (85.7%) patients noted that the disease lasted from 1 year to 3 years.

In the study of the distribution of children with atopic dermatitis according to the location of damage, it was found that among the examined children, the face was 5 (3.8%), the face, hands, feet – 56 (42.1%), the face, body – 2 (1.5%) people, face, neck, hands – 3 (2.2%) people, face, hands, legs, abdomen – 21 (15.8%) people, face, body, hands, legs – 12 (9.0%) people, face, head, hands, legs – 11 (8.3%) people, body – 2 (1.5%) people, body, hands, legs – 6 (4.5%) people, neck, stomach – 2 (1.5%) patients, legs – 2 (1.5%) patients, and hands and feet – 11 (8.3%) patients were affected (Tab. 1).

**Table 1**

**Distribution of children with atopic dermatitis according to the site of damage**

Body areas	Total number of patients, n=133	
	Number	%
Face	5	3,8
Face, arms, feet	56	42,1
Face, body	2	1,5
Face, neck, arms	3	2,2
Face, arms, feet, stomach	21	15,8
Face, body, arms, feet	12	9,0
Face, head, arms, feet	11	8,3
Body	2	1,5
Body, arms, legs	6	4,5
Neck, stomach	2	1,5
Feet	2	1,5
Arms, feet	11	8,3

Among 133 atopic dermatitis patients in our clinical observation, 56 (42.1%) suffered from erythematous-squamous form. They found that the patho-

logical process on the skin is accompanied by erythema, small nodules, excoriation (scratching) and crusting (Fig. 1).



**Fig. 1. Erythematous-squamous form of atopic dermatitis.**

Erythematous-squamous form of atopic dermatitis with lichenification was found in 41 (30.9%) chil-

dren. This form of atopic dermatitis was characterized by the appearance of intensely itchy lichenoid

nodules against the background of erythematous-squamous lesions. The foci are lichenized, the skin is

dry, covered with small scaly scales, there are hemorrhagic crusts and excoriations (scratches) (Fig. 2).



**Fig. 2. Erythematous-squamous form of atopic dermatitis.**

In 18 (13.5%) children, an exudative form of atopic dermatitis was detected, which was accompanied by the formation of light-colored swollen erythema, and small

flat nodules and microvesicles were observed on its background. Significant exudation and granular-crusted layers were found in the foci of damage (Fig. 3).



**Fig. 3. Exudative form of atopic dermatitis.**

The lichenoid form of atopic dermatitis was found in 13 (9.8%) children, and the affected foci consisted of well-defined foci with significant lichenification and infiltration, lichenoid nodules with a shiny surface, hemorrhagic crusts and excoriations (scratches) (Fig. 4).

The pruriginous form of atopic dermatitis was detected in 5 (3.7%) children, the pathological process on the skin was characterized by the appearance of isolated itchy pea-sized nodules on the background of lichenization of the skin on the hands and feet, neck, buttocks and back (Fig. 5).

Investigations showed that in 56 patients with

erythematous-squamous form of atopic dermatitis, 29 (51.8%) had a mild course of the disease (average –  $30.6 \pm 1.4$  points), 17 (30.4%) had a moderate course of the disease ( average –  $65.9 \pm 1.8$  points) and severe course – 10 (17.8%) (average –  $90.8 \pm 2.3$  points) patients were found in children.

Among 41 patients with erythematous-squamous form of atopic dermatitis with lichenification, according to the SCORAD index, 17 (41.5%) patients had a mild course of the disease (average –  $38.8 \pm 1.8$  points), 16 (39.0%) had an average course of the disease) (average –  $66.6 \pm 2.3$  points) and severe course – 8 (19.5%) (average –  $88.8 \pm 1.4$



**Fig. 4. Lichenoid form of atopic dermatitis.**



**Fig. 5. Pruriginous form of atopic dermatitis.**

points) patients were observed in children.

Among 18 children with exudative form of atopic dermatitis, 8 (44.4%) had a mild course of the disease (average –  $31.5 \pm 3.1$  points), 5 (27.8%) had an average course of the disease (average –  $69.9 \pm 1.9$  points) and severe course – 5 (27.8%) (average –  $88.4 \pm 1.8$  points) patients were found in children.

Among 13 children with lichenoid form of atopic dermatitis, 4 (30.8%) had a mild course of the disease (average –  $30.8 \pm 5.2$  points), 6 (46.1%) had an average course of the disease (average –  $65.0 \pm 2.1$  points) and severe course – 3 (23.1%) (average –  $90.9 \pm 4.6$  points) patients were observed in children.

1 (20.0%) of 5 children with a pruritic form of atopic dermatitis had a mild course of the disease (average –  $38.7 \pm 0$  points), 2 (40.0%) had an average course of the disease (average –  $68.1 \pm 0.7$  points) and severe course – 2 (40.0%) (average –

$100.9 \pm 1.1$  points) patients were found in children.

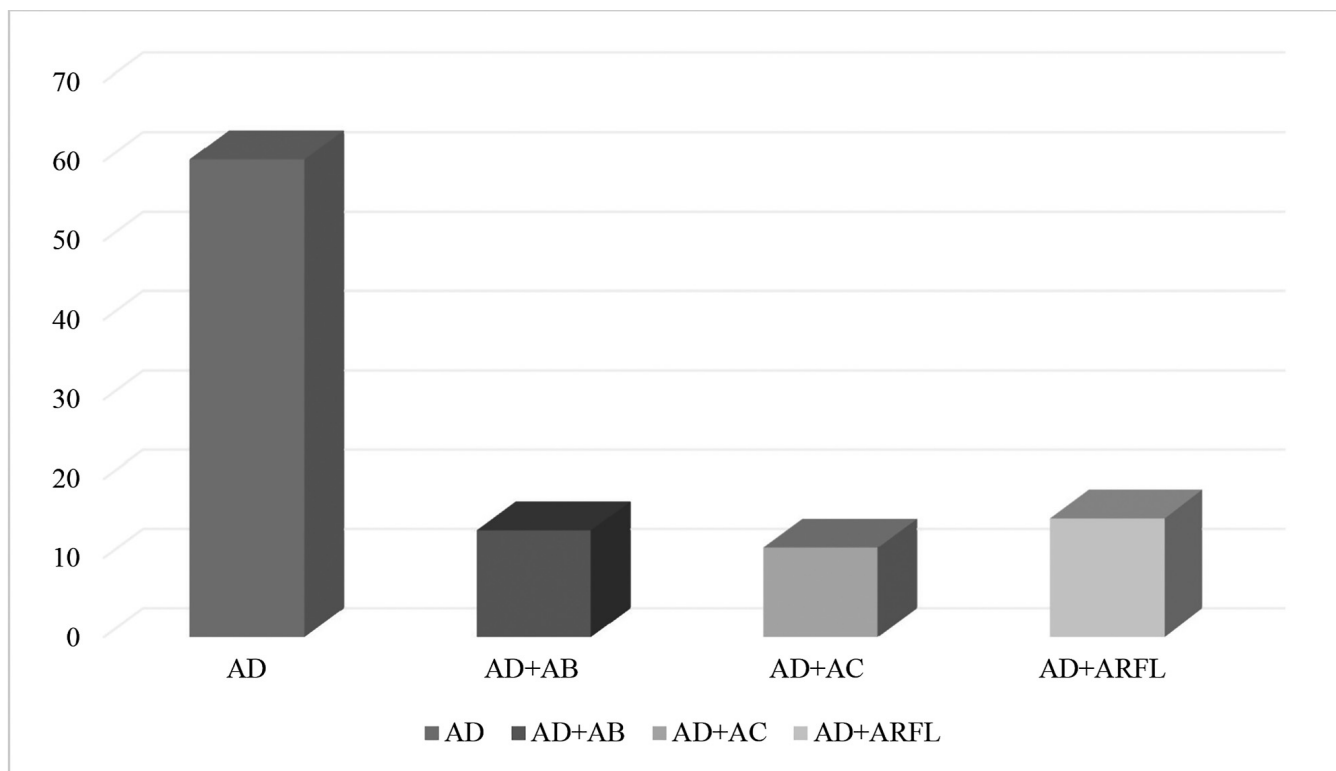
The data obtained on the determination of the severity of the disease according to the SCORAD index showed that depending on the clinical form of atopic dermatitis, the determination of the severity of the course of the disease also changes. For example, in the mild form of the disease (erythematous-squamous form), mild disease is more common (51.8% of patients) and severe disease (17.8% of patients) is less common, while in the severe form of atopic dermatitis (pruriginous form), on the contrary, severe disease is found (40.0% of patients) and mild course (in 20.0% of patients) is less pronounced.

It is known that allergic etiology changes in the internal organs accompanying the clinical course of atopic dermatitis (AD) also play a special role. For this reason, we studied pathologies of allergic etiology in the accompanying internal organs in children

with atopic dermatitis.

Investigations showed that 53 (39.8%) of 133 children with atopic dermatitis had other concomitant allergic diseases. Among them, 18 people were diagnosed with allergic bronchitis (AB), which made up 13.5%, atopic dermatitis with allergic con-

junctivitis (AK) – 15 (11.3%) people, and allergic rhinitis, pharyngitis or co-occurrence with laryngitis (ARFL) – 20 (15.0%) patients were observed in children. The remaining 80 (60.2%) patients had atopic dermatitis in children without diseases of allergic etiology in internal organs (Fig. 6).



**Fig. 6. Distribution of children with atopic dermatitis in relation to other accompanying allergic diseases.**

It should be noted that when we studied the allergological anamnesis of the patient's children in depth, it became clear that the father or mother of 36 (27.1%) of the patients and the brothers or sisters of 27 (20.3%) of the patients had atopic dermatitis or allergic etiology in the internal organs. the presence of diseases was determined. This suggests that the formation and course of AD has been found to begin long before the birth of a child.

To study the influence of concomitant allergic diseases on the clinic of atopic dermatitis, 32 patients with atopic dermatitis without any concomitant diseases were taken as a comparison group. As can be seen from the above data, among patients with AD, in most cases, concomitant pathologies such as allergic rhinitis, pharyngitis or laryngitis (15.0%) are found.

In children with allergic rhinitis, the main non-cutaneous (classic) symptoms are rhinorrhea - clear and mucous discharge from the nasal passages

(100%), sneezing (75.0%), itching (85.0%) and a feeling of burning in the nose (50.0%), stuffy nose (93.3%), mouth breathing (80.0%), gagging (45.0%), snoring (30.0%), apnea (15.0%), voice change (45.0%). Also, “allergic circles under the eyes” in the form of darkening of the lower eyelid and periorbital area (25.0%) were observed as a characteristic sign for this pathology.

The main complaints of patients with allergic pharyngitis were the feeling of dryness in the throat (53.3%), tickling (26.7%) and swelling (20%), which caused the urge to cough. The cough is persistent and dry, and from time to time the patients need to swallow phlegm flowing from the back wall of the throat, which has led to the patient's irritability and sleep disturbances.

In almost half (40.8%) of children with allergic laryngitis, the disease was accompanied by an increase in body temperature indicators to sub-febrile and, very rarely, febrile levels. In 97.4% of



children, a change in the form of wheezing was detected. 92.1% of patients had a dry non-productive cough.

Allergic bronchitis was manifested in patients with expiratory shortness of breath (88.9%), nasal congestion (77.8%), dry (61.1%) and wet (38.9%) wheezing in the lungs. In 21% of patients, intoxication syndrome was also observed. In 74% of children, all episodes of bronchial obstruction were the same: normal or subfebrile body temperature, dry ineffective cough, expiratory shortness of breath, and rapid positive dynamics of clinical signs against the background of antispasmodic treatment.

Allergic conjunctivitis in 86.7% of children was characterized by intense itching in the eyes, 55.6% by conjunctival hyperemia, 27.8% by photophobia, 13.3% by lacrimation, and 33.3% by periorbital swelling.

The severity of the clinical course of the disease in the group of children with atopic dermatitis was compared with the group of patients with atopic dermatitis and concomitant allergic diseases, according to the SCORAD index. In patients with clinically mild AD, the SCORAD index was  $33.7 \pm 1.0$  points, and in cases of AD and concomitant allergic diseases, this index was  $42.9 \pm 2.9$  points, and a statistical tendency was found in the difference between these numbers ( $p > 0.05$ ). Among patients with AD and AD and associated diseases, it was moderately severe ( $42.3 \pm 2.7$  points;  $73.1 \pm 3.4$  points, respectively) and in patients with severe disease ( $62.7 \pm 1.3$  points, respectively;  $98.5 \pm 3.1$  points) the difference of the SCORAD index was recorded at a statistically reliable level ( $p < 0.001$ ). According to the analysis of the obtained results, in the group of patients with atopic dermatitis and accompanying allergic diseases, the SCORAD

index was higher in the mild, moderate and severe levels of the disease compared to the group of patients with only AD.

**Conclusion.** Clinical examination showed that Among the clinical forms of the disease in children with atopic dermatitis, the erythematous-squamous form was found in 85.0% of patients. The other clinical forms were diagnosed in 15.0% of children (erythematous-squamous form with lichenification – 3.7%, exudative form – 5.3%, lichenoid form – 3.0% and pruriginous form – 3.0%).

In most cases (39.8%) of children with atopic dermatitis, the disease is accompanied by other allergic diseases, including allergic bronchitis (13.5%), allergic conjunctivitis (11.3%) and allergic rhinitis, pharyngitis or laryngitis (15.0%). was observed to meet together.

Lesions are located on the face compared to other areas (hands, feet), and in most patients (82%), the severity of the disease is expressed by the SCORAD index, its indicator is pruriginous ( $100.9 \pm 1.1$  points) and the lowest indicator was determined as erythematous-squamous ( $30.6 \pm 1.4$  points).

The results showed that in most cases (39.8%) of children with atopic dermatitis, the disease was accompanied by other allergic diseases, including allergic bronchitis (13.5%), allergic conjunctivitis (11.3%) and allergic rhinitis, pharyngitis or laryngitis (15.0%) and a more severe course of atopic dermatitis was found in them. Thus, in the group associated with AD and concomitant allergic diseases, compared to the groups of patients with AD and AD and no concomitant allergies, a higher SCORAD index indicates a more severe course of the disease. These results help predict the clinical course of the disease.

#### REFERENCES – ƏDƏBİYYAT – ЛИТЕРАТУРА

1. Абидов Х., Хаитов К., Абидов А., Каримов, Б. Bolalarda atopik dermatit klinik kechishining zamonaviy tamoyillari // Педиатрия, 2023. 1(1), 444–447. извлечено от <https://inlibrary.uz/index.php/pediatrics/article/view/27163>
2. Ардатова И.Г., Тихомиров А.А., Короткий Н.Г. и др. Коморбидность атопическо дерматита и функциональных изменений поджелудочной железы // Трудный пациент. 2018; 16(8-9): 54-57.
3. Балаболкин И.И., Булгакова В.А., Елисеева Т.И. Состояние эпидермального барьера и возможности коррекции при атопическом дерматите у детей // Педиатрия. 2019: 98(3); 164-171.
4. Баткаев Э.А., Попов И. Лечение атопического дерматита у детей с изменением микробиоцинозом кожи // Врач. 2017, № 12, с. 40-47.
5. Горланов И.А. и др. Наружная терапия атопического дерматита // Справочник фельдшера и акушерки. 2014, №6, с. 80-84.
6. Мавлянова Ш.З. и др. Клиническая характеристика атопического дерматита у детей в условиях жаркого климата Узбекистана // *Juvenis scientia*, 2022; 8(3): 22-30.
7. Мавлянова Ш.З. и др. Клинические особенности атопического дерматита с учетом обсемененности кала *Candida* spp. и общего IgE // Проблемы медицинской микологии,

- 2017; 19(4):15-17.
8. Мавлянова Ш.З., Есионова Е.В., Разикова Г.Р. Особенности клинического течения атопического дерматита с моноволентной сенсибилизацией к грибам рода *candida* // Боткинские чтения, 2020;166-166.
9. Мавлянова Ш.З., Муллаханов Ж.Б., Исмагилов А.И. Современные методы диагностики аллергических заболеваний кожи // *Juvenis scientia*, 2020; 6(3):28-34.
10. Мавлянова Ш.З. и др. Оценка цитокинового статуса у больных атопическим дерматитом // *Central Asian Journal of Medical and Natural Science*, 2022; 3(3): 729-733.
11. Маннанов А.М. Болаларда атопик дерматит касаллигининг ирсий хусусиятлари. Монография. Ташкент., 2017. - 128 б.
12. Маннанов А.М. Болаларда терининг алергик касалликлари. Ўқув қўлланма. Ташкент., 2018. - 104 б.
13. Маннанов А.М., Хаитов Қ.Н. Болалар тери ва таносил касалликлари. Дарслик. Ташкент., 2016. – 560 б.
14. Матушевская Е.В., Владимирова Е.В., Свиршевская Е.В. Атопический дерматит и роль цинка в поддержании барьерных свойств кожи // *Клиническая дерматология и венерология*, 2020, т.19., №3. С. 2 97-304.
15. Потекаев Н.Н., Серов Д.Н., Михайлова И.А. и др. Современные аспекты патогенеза и терапии атопического дерматита // *Клиническая дерматология и венерология*, 2019: 18(3); 259-264.
16. Разикова И.С., Разикова Г.Р., Айдарова Н.П. ва хаммуаллифлар. Распространенность аллергических заболеваний среди возрастной группы 0-18 лет населения Республики Узбекистан // *Терапевтический вестник Узбекистана*, 2020. № 2. с. 174-180.
17. Ревякина В.А., Таганов А.В., Короткова Т.Н. и др. Современные эпидемиологические и теоритические аспекты атопического дерматита у детей // *Педиатрия*, 2019, т.98. №3. С. 202-207.
18. Смирнова Г.И. Атопический дерматит у детей: достижение и перспективы // *Российский педиатрический журнал*. 2017; 20 (2): 99-107.
19. Смирнова Г.И. Атопический дерматит у детей: новое в патогенезе диагностике и лечении // *Лечащий Врач*. 2017. № 4. С.
20. Халиуллин С.В., Анохин В.А. Особенности острых течения респираторных инфекций у детей с атопическим дерматитом // *Российский вестник перинатологии и педиатрии*. 2016; 61(5): 136-140.
21. Abidov A., et al. Heredity, allergoanamnesis and seasonality in the development and course of atopic dermatitis in children // *Science and innovation 2.D7* (2023): 55-58.
22. Abidov Kh, et al. Diagnostic value of dermatoscopy in atopic dermatitis in children // *Science and innovation 2.D7* (2023): 48-54.
23. American Academy of Dermatology (AAD). (2021). Eczema Statistics. Retrieved from <https://www.aad.org/public/diseases/eczema/childhood>
24. Bhattacharya T, Strom MA, Lio PA. Historical Perspectives on Atopic Dermatitis: Eczema Through the Ages // *Pediatr Dermatol*. 2016;33(4):375-379. <https://doi.org/10.1111/pde.12853>.
25. Bieber T. Atopic dermatitis. *New England Journal of Medicine*, 2018. 378(1), 5-13.
26. Dharmage SC. Lowe AJ. Matheson MC. Burgess JA. Allen KJ. Abramson MJ. Atopic dermatitis and the atopic march revisited // *Allergy*. 2014; 69 (1): 17-27.
27. Dong-Ho Nahm. Personalized Immunomodulatory Therapy for Atopic Dermatitis: An Allergist's View // *Ann Dermatol*. 2015; 27 (4): 355-363.
28. Drucker AM, Thompson JM, Li WQ, Cho E, Li T, Guttman-Yassky E, Qureshi AA. Incident alopecia areata and vitiligo in adult women with atopic dermatitis: Nurses Health Study 2 // *Allergy*. 2017;72(5):831-834.
29. Drucker A.M., Wang A.R., Li W.Q., Severson, E. The burden of atopic dermatitis: summary of a report for the National Eczema Association // *Journal of Investigative Dermatology*, 2020, 140(6), 542-545.
30. Irvine AD, Eichenfield LF, Friedlander SF, Simpson EL. Review of Critical Issues in the Pathogenesis of Atopic Dermatitis // *Semin Cutan Med Surg*. 2016 Jun;35(5 Suppl):S89-91. doi: 10.12788/j.sder.2016.042.
31. Havstad S., Johnson C, Kim I., Levin A. M., Zoratti E. M., Joseph C. L. et al Atopic phenotypes identified with latent class analyses at age 2 years // *J Allergy Clin Immunol*. 2014; 134 (3): 722-727.
32. Hoffjan S. Stemmler S. Unravelling the complex genetic background of atopic dermatitis: from genetic association results towards novel therapeutic strategies // *Arch. Dermatol. Res*. 2015; 307 (8): 659-70;
33. Irvine A.D., McLean W.H., Leung D.Y. Filaggrin mutations associated with skin and allergic diseases // *N. Engl. J. Med*. 2011; 365 (14): 1315-27. Doi: 10.1111/1346-8138.14540. Epub 2018.
34. Kalhan TA, Loo EX, Kalhan AC, Kramer MS, et al. Atopic dermatitis and early childhood caries: Results of the GUSTO study // *J Allergy Clin Immunol*. 2017;139(6):2000-2003.
35. Katayama I, Kohno Y, Akiyama K, Aihara M, Kondo N, Saeki H, Shoji S, Yamada H, Nakamura K. Japanese guideline for atopic dermatitis 2014 // *Allergol Int*. 2014;63(3):377-398.
36. Khaitov K.N., et al. A Modern View on Pathogenetic Therapy of Atopic Dermatitis In Children // *Новый день в медицине 1* (2021): 217-227.
37. Kim J., Kim B.E., Leung D.Y.M. Pathogenetic of atopic dermatitis: Clinical implications // *Allergy Asthma Proc*. 2019; 40: 84-92.
38. Liang Y. Yang C., Lu O. - The Genetics and Epigenetics of Atopic Dermatitis-Filaggrin and Other Polymorphisms // *Clin. Rev. Allergy Immunol*. 2016; 51(3): 315-28.
39. Mannanov A. The significance of the influence of panmixia and inbreeding conditions on the formation of atopic dermatitis in children // *Chin J Ing Hug Occup Dis* 2021, Vol. 39, № 13, P.154-163.
40. Nutten S. Atopic dermatitis: global epidemiology and risk factors // *Annals of Nutrition and Metabolism*, 2015, 66(Suppl. 1), 8–16.
41. Perugia C, Saraceno R, Ventura A, Lore B, Chiaramonte C, Docimo R, Chimenti S. Atopic dermatitis and dental manifestations // *G Ital Dermatol Venerol*. 2017;152(2):122-125.
42. Rajka G. Essential Aspects of Atopic Dermatitis. Berlin: Springer-Verlag, 1989; 261 p.

43. Ressa K, Annus T, Putnik U, Luts K, Uibo R, Uibo O. Celiac disease in children with atopic dermatitis // *Pediatr Dermatol*. 2014;31(4):483-488.
44. Silverberg, J.I. Public health burden and epidemiology of atopic dermatitis // *Dermatologic clinics*, 2020. 38(4), 455-462.
45. Simpson E.L., Villareal M., Jepson B., et al. Patients with Atopic Dermatitis Colonized with *Staphylococcus aureus* Have a Distinct Phenotype and Endotype // *J Invest Dermatol*. 2018; 138(10): 2224-2233.
46. Thomsen SF. Epidemiology and natural history of atopic diseases // *Eur Clin Respir J*. 2015. Mar. 2. ( 1. ): 2464.
47. Thyssen J.P., Kezic S. Causes of atopic dermatitis – epidemiological clues // *Immunology and Allergy Clinics of North America*, 2014. 34(1), 19-43.
48. Weidinger S., Novak, N. Atopic dermatitis // *The Lancet*, 2016. 387(10023), 1109-1122.
49. Werfel T., Biedermann T. Current novel approaches in systemic therapy of atopic dermatitis: specific inhibition of cutaneous Th2 polarized inflammation and itch // *Curr Opin Allergy Clin Immunol*. 2015; 15 (5): 446-452/
50. Williams MR, Gallo RL. The role of the skin microbiome in atopic dermatitis // *Current Allergy and Asthma Reports*. 2015; 15 (11): 1-10. doi: 10.1007/s11882-015-0567-4 oi; 10.1007/s11882-015-0567.
51. World Allergy Organization. The World Allergy Organization Journal: Global Atopic Dermatitis Epidemiology Update 2020.

## XÜLASƏ

### UŞAQLARDA ATOPIK DERMATITİN KLİNİK XÜSUSİYYƏTLƏRİ

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Məqalədə uşaqlarda atopik dermatitlə əlaqəli fərqli klinik xüsusiyyətlər ətraflı araşdırılır. Məqalədə klinik mənzərənin hərtərəfli təqdim olunur, uşaqlarda bu ümumi dəri xəstəliyinin daha dərinə anlaşılmalarına kömək edən əsas cəhətlər vurğulanır. Məqalədə qaşınma, eritema və dəri zədələnmələrinin paylanmasının xarakterik mənzərəsi daxil olmaqla atopik dermatitin ilkin klinik təzahürləri ətraflı müzakirə olunur. Müəlliflərin hərtərəfli araşdırmaları, atopik dermatitin təzahürlərinin körpəlikdən yeniyetməyə necə inkişaf etdiyinə dair dəyərli məlumatlar təqdim edərək, simptomların yaşa bağlı dəyişikliklərinə nəzər salmaqla səthi əhatə dairəsindən kənara çıxır. Bundan əlavə, məqalədə atopik dermatit və digər allergik səbəblər arasındakı əlaqə araşdırılır, daha geniş bir uşaq allergik həssaslığının arxasındakı kompleks əlaqələr vurğulanır. Son tədqiqat nəticələrinə və klinik müşahidələrə əsaslanan bu izahlı məqalə, uşaqlarda atopik dermatitlə əlaqəli klinik nüanslar haqqında hərtərəfli bir fikir əldə etmək istəyən səhiyyə işçiləri, tədqiqatçılar və fərdlər üçün əvəzolunmaz bir qaynaqdır. Bu, yalnız bir tədqiqat kimi xidmət etmir, həm də uşaq dermatologiyasının bu kritik sahəsində effektiv diaqnoz, müalicə və gələcək tədqiqatların potensial istiqamətləri barədə davam edən müzakirəyə kömək edir.

**Açar sözlər:** atopik dermatit, uşaqlıq, klinik təzahürlər, səfeh, SCORAD, dermatologiya.

## РЕЗЮМЕ

### КЛИНИЧЕСКИЕ ОСОБЕННОСТИ АТОПИЧЕСКОГО ДЕРМАТИТА У ДЕТЕЙ

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В статье подробно рассматриваются клинические особенности атопического дерматита у детей. В статье представлен всесторонний обзор клинической картины, выделены ключевые аспекты, которые способствуют более глубокому пониманию данного дерматоза у детей. Представлен подробный анализ клинических проявлений атопического дерматита у детей, включая зуд, эритему и характерную картину распределения кожных поражений в зависимости от возраста и формы заболевания. Авторы представляют тщательный обзор клиники атопического дерматита у детей, углубляясь в возрастные особенности симптоматики, предлагая ценную информацию об эволюции проявлений данной патологии от младенческого до подростково-взрослого периода заболевания. Кроме того, в статье рассматривается взаимосвязь между атопическим дерматитом и другими аллергическими состояниями, лежащими в основе более широкого спектра детской аллергической чувствительности. Основанная на последних результатах исследований и клинических

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наблюдениях статья, является ценным ресурсом для медицинских работников, исследователей и лиц, стремящихся получить всестороннее представление о нюансах атопического дерматита у детей. Данный материал является продолжением дискурса о клинических аспектах и эффективной диагностике атопического дерматита у детей.

**Ключевые слова:** атопический дерматит, детство, клинические особенности, высыпания, SCORAD, дерматология.

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