American Journal of Medicine and Medical Sciences 2025, 15(8): 2803-2808
DOI: 10.5923/j.ajmms.20251508.81

Analysis of the Effectiveness of the Use of Standard Medical Protocols and Folk Medicine Methods in the Treatment of Chronic Allergic Dermatitis

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Abstract The article presents the results of a clinical and epidemiological study of 298 patients with chronic allergic dermatoses treated according to standard medical protocols and folk medicine methods. The study population included 138 (46.3%) men and 160 (53.7%) women, with an average age of 27.7±1.27 and 30.6±1.13 years, respectively. Patients were analyzed by age categories, sex, and nosological forms, including allergic contact dermatitis, atopic dermatitis, eczema, and other variants. It was revealed that allergic contact dermatitis predominated among women ($p<0.05$), while atopic dermatitis was more common in men, especially in childhood ($p<0.05$). Standard treatment protocols were applied in 56.7% of cases, predominantly among women, while 43.3% of patients, mainly men, used traditional folk remedies. A comparative analysis of morphological elements (nodules, blisters, excoriations, fissures, lichenification, scaling, etc.) showed significant age- and sex-specific differences, indicating the polymorphism of clinical manifestations. The obtained results confirm that the course and severity of chronic allergic dermatoses are influenced by gender and age factors, as well as by adherence to treatment protocols. These findings can serve as a basis for optimizing diagnostic and therapeutic strategies and for developing individualized approaches to the treatment of chronic allergic skin diseases.

Keywords Chronic allergic dermatoses, Allergic contact dermatitis, Atopic dermatitis, Eczema, Folk medicine, Standard medical protocols, Morphological elements, Treatment effectiveness

1. Introduction

Chronic allergic dermatoses (CAD) are among the most common dermatological diseases worldwide, significantly reducing the quality of life and leading to prolonged treatment and frequent relapses (Silverberg, 2017; Wang et al., 2020). According to the World Health Organization (WHO, 2021), allergic skin diseases affect up to 20–25% of the global population, with a marked increase in incidence over the past two decades. The most prevalent forms include allergic contact dermatitis (ACD), atopic dermatitis (AD), and eczema, which together account for more than 70% of all chronic allergic dermatoses [1,7].

Epidemiological studies indicate that CAD are more common in women of reproductive age, which is associated with hormonal influences, increased exposure to household chemicals, and cosmetic use (Kim et al., 2019). At the same time, atopic dermatitis is more frequent in childhood and adolescence, with higher prevalence among boys [4]. Such gender- and age-related differences require careful analysis to determine risk factors and optimize treatment strategies.

Despite the existence of standardized therapeutic protocols, including glucocorticoids, antihistamines, and topical remedies [2], many patients continue to use traditional folk medicine, either independently or in combination with modern approaches. According to several reports, up to 40–45% of patients resort to folk remedies, which may affect the clinical course, delay remission, and increase the risk of complications [6].

Clinical manifestations of CAD are diverse and include nodules, blisters, excoriations, fissures, lichenification, and scaling, whose prevalence varies significantly by age and sex. Morphological heterogeneity reflects the chronicity and severity of the disease, and is closely linked to pruritus intensity, immune hyperreactivity, and recurrent inflammation [4,5].

In this context, a comprehensive assessment of demographic, nosological, and therapeutic features of chronic allergic dermatoses is of paramount importance. Such data will provide the basis for developing individualized treatment approaches, improving patient adherence, and enhancing the overall effectiveness of therapy.

Purpose of the study. The aim of this study was to investigate the age, gender, and nosological characteristics of

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Received: Aug. 7, 2025; Accepted: Aug. 25, 2025; Published: Aug. 30, 2025
Published online at http://journal.sapub.org/ajmms

chronic allergic dermatoses (CAD), as well as to evaluate the effectiveness of standard medical protocols compared with traditional folk medicine methods. Special attention was given to the distribution of patients by clinical forms, age- specific manifestations, and morphological elements of the skin in order to identify patterns that may influence the severity, recurrence, and prognosis of the disease.

2. Materials and Methods

A comprehensive clinical and epidemiological study was conducted among 298 patients with chronic allergic dermatoses. All participants were selected based on predefined inclusion and exclusion criteria to ensure the accuracy of the results and eliminate the effect of unrelated pathologies.

Patients were divided into two main treatment groups:

Group I (n=169): Patients treated according to standard medical protocols, including glucocorticoids, antihistamines, and topical agents.

Group II (n=129): Patients who predominantly used folk medicine methods, either independently or in combination with modern therapy.

The distribution of patients was analyzed by age, gender, and nosological forms, including allergic contact dermatitis, atopic dermatitis, eczema, and other variants. In addition, morphological elements of the skin (nodules, blisters, excoriations, fissures, lichenification, scaling, etc.) were evaluated across different age and sex categories. Statistical analysis included comparisons of prevalence rates, gender differences, and age-related trends, with the aim of identifying clinical and epidemiological features that may guide the development of individualized therapeutic strategies.

3. Results and Discussion

The study showed that the course and clinical manifestations of chronic allergic dermatoses (CAD) were significantly influenced by age, gender, and the chosen method of treatment. In patients who used standard medical protocols, remission was achieved faster and the severity of symptoms was lower, whereas in patients relying on folk medicine, the disease often had a prolonged and recurrent course.

Age analysis revealed that CAD occurred in all categories, from early childhood to older age, but their distribution varied: atopic dermatitis was more common in children and adolescents, while allergic contact dermatitis predominated in adults, especially women of reproductive age. Eczema and other rare forms were mostly observed in middle-aged and elderly patients.

The evaluation of morphological elements confirmed these differences. Nodules were most frequent in children, blisters predominated in women of reproductive age, and excoriations were significantly more common in women across almost all groups. Chronic features such as lichenification and scaling were mainly observed in adults, indicating a prolonged and relapsing course of the disease.

Analysis of treatment groups demonstrated that patients managed with standard protocols had better outcomes: a lower frequency of excoriations, reduced itching intensity, and fewer chronic morphological changes. By contrast, in patients who predominantly used folk medicine, relapses were more frequent, and elements such as fissures, red dermographism, and scabies were recorded at higher rates.

Thus, the results confirm that gender and age factors, combined with the choice of treatment method, significantly influence the clinical course of chronic allergic dermatoses. Standardized therapy ensures more stable remission, while reliance on folk medicine is associated with prolonged disease activity and higher recurrence. These findings highlight the need for patient education and the development of individualized therapeutic strategies.

A total of 298 patients were involved in the study. Of these, 138 (46.3%) were men and 160 (53.7%) were women. In chronic allergic dermatoses, a predominance of women was noted. This indicator corresponds to the data recorded in the literature, which indicates a higher frequency of chronic skin allergic diseases in women ($p<0.05$) (Table 1).

Table 1. Distribution of patients by age and sex, n=298

No	Age group	Men (n=138)	Women (n=160)
1.	Average age (M±m)	27.7±1.27	30.6±1.13
2.	Minimum age	1.	1.
3.	Maximum age	74.	73.

In the analysis of age indicators: the average age in men was 27.7±1.27 years, and in women 30.6±1.13 years. As a result of statistical comparison, it was established that the average age indicator in women is significantly higher than in men ($t=2.1$; $p<0.05$). Age intervals showed that they covered different age stages of patients: the youngest age - 1 year, the oldest age - 73-74 years. This confirms that chronic allergic dermatoses are a disease that continues both in childhood and in adulthood.

The distribution by age categories is presented in Table 2.

Table 2. Distribution of patients by age categories, n=298

No	Age group	Men (n=138)		Women (n=160)	
		Abs.	%	Abs.	%
1.	Under 18 years old	61.	44.2	51.	31.9
2.	18-44 years old	42.	30.4	66.	41.3
3.	45-59 years old	19.	13.8	27.	16.9
4.	60-74 years old	16.	11.6	16.	10.
	Total	**138.**	**46.3**	**160.**	**53.7**

Table 3. Distribution by nosological forms

		Allergic contact dermatitis (n=161)		Atopic dermatitis (n=74)		Eczema (n=40)		Others (n=26)	
		Abs.	%	Abs.	%	Abs.	%	Abs.	%
Male (n=138)	**<18**	27.	42.2	31.	75.6	0	0	2.	13.3
	18-44.	25.	39.1	5.	12.2	9.	47.4	4.	26.7
	45-59.	6.	9.38	3.	7.31	5.	26.3	6.	40.
	60-74	6.	9.38	2.	4.88	5.	26.3	3.	20.
	Total	**64.**	**46.**	**41.**	**29.7**	**19.**	**13.8**	**15.**	**10.9**
Female (n=160)	**<18**	25.	25.8	20.	66.7	4.	19.	2.	18.2
	18-44.	41.	42.3	5.	16.7	12.	57.1	7.	63.6
	45-59.	18.	18.6	5.	16.7	3.	14.3	1.	9.09
	60-74	13.	13.4	0	0	2.	9.5	1.	9.09
	Total	**97.**	**61.**	**30.**	**18.8**	**21.**	**13.1**	**11.**	**6.9**

Patients under 18 years of age: men - 61 (44.2%), women - 51 (31.9%). This indicator is significantly higher in men than in women ($\chi2=4.15$; $p<0.05$). Thus, in childhood and adolescence, the disease was relatively more common in men. Age 18-44: men - 42 (30.4%), women - 66 (41.3%). In this age category, a predominance of women was noted ($p<0.05$). This condition may be explained by hormonal changes, cosmetic factors, and increased exposure to household allergens (Christensen et al., 2024). 45-59 years: men - 19 (13.8%), women - 27 (16.9%). In this category, the proportion of women is also higher, but the difference is statistically insignificant ($p>0.05$). 60-74 years: men - 16 (11.6%), women - 16 (10%). In the older age group, the distribution is almost equal, and there is no significant difference between men and women ($p>0.05$).

Chronic allergic dermatoses manifest in various nosological forms. In the literature, allergic contact dermatitis and atopic dermatitis are among the most common types (Zhao et al., 2021). At the same time, eczema and other less common forms are also significant in clinical practice, characterized by their severe course and recurrence (Silverberg, 2017). Studying the distribution of patients by nosological forms is important for determining the epidemiological features of the disease and determining a targeted treatment strategy. The distribution of patients by nosological forms is presented in Table 3.

Allergic contact dermatitis (n=161, 54%) in men - 64 (46%), in women - 97 (61%). This form was mainly observed in women ($\chi2=4.6$; $p<0.05$). This is explained by frequent encounters with household chemicals, cosmetics, and household allergens. Atopic dermatitis (n=74, 24.8%) men - 41 (29.7%), women - 30 (18.8%). Atopic dermatitis was more common in men ($p<0.05$). Especially pronounced in men under 18 years of age (75.6% vs 66.7%). This confirms the prevalence of atopy in childhood. Eczema (n=40, 13.4%) men - 19 (13.8%), women - 21 (13.1%). The gender difference is insignificant ($p>0.05$). By age, the highest level was noted mainly in the 18-44 age category (47.4% men and 57.1% women). This condition may be associated with occupational and domestic factors. Other forms (n=26, 8.7%) men - 15 (10.9%), women - 11 (6.9%). This category includes various rare allergic dermatoses. They were mainly found in older age groups (40% men and 63.6% women over 45 years old).

Different treatment methods are used for chronic allergic dermatoses. In international recommendations (European Dermatology Forum, 2020), the main direction is based on standard protocols, which include glucocorticoids, antihistamines, and local remedies. At the same time, traditional folk remedies are widely used in our country. According to the literature, some patients, not fully adhering to modern protocols, resort to various methods of traditional medicine, which sometimes affects the course of the disease (Kim et al., 2019; WHO 2021). The distribution of patients by treatment methods is presented in Table 4.

Table 4. Distribution of patients by treatment methods

	Men (n=138)		Women (n=160)	
	abs.	%	abs.	%
Standard	**75.**	**44.4**	**94.**	**55.6**
Folk medicine	**63.**	**48.8**	**66.**	**51.2**

Among those treated according to the standard protocol men - 75 (44.4%), women - 94 (55.6%). A total of 169 patients (56.7%). In this group, women were significantly more numerous ($\chi2=4.3$; $p<0.05$). Men used folk medicine methods men - 63 (48.8%), women - 66 (51.2%). A total of 129 patients (43.3%). The gender difference is insignificant ($p>0.05$), however, the proportion of men is higher.

From this, it can be concluded that the majority of patients (56.7%) used the standard treatment protocol, with a significant advantage, especially in women ($p<0.05$). Traditional medicine methods were used by 43.3% of patients, which was more common in men, but there is no statistically significant difference ($p>0.05$). These data indicate that folk medicine is still widely used in practice, and some patients do not fully comply with standard protocols.

The characteristics of morphological changes in the skin by age and sex are shown in Tables 5-7.

Table 5. Age and sex characteristics of skin changes in patients

		Nodule (n=262)		Bubble (n=181)		Excoriation (n=203)		Scratch marks (n=48)	
		Abs.	**%**	**Abs.**	**%**	**Abs.**	**%**	**Abs.**	**%**
Man	<18	57.	47.5	39.	44.8	40.	45.45	12.	48.
	18-44.	33.	27.5	26.	29.9	24.	27.27	6.	24.
	45-59.	16.	13.3	13.	14.9	14.	15.91	4.	16.
	60-74	14.	11.7	9.	10.3	10.	11.36	3.	12.
		120.	**45.8**	**87.**	**48.1**	**88.**	**43.4**	**25.**	**52.1**
Woman	<18	48.	33.8	27.	28.7	39.	33.91	7.	30.4
	18-44.	54.	38.	40.	42.6	48.	41.74	11.	47.8
	45-59.	25.	17.6	18.	19.1	19.	16.52	3.	13.
	60-74	15.	10.6	9.	9.57	9.	7,826	2.	8.7
		142.	**54.2**	**94.**	**51.9**	**115.**	**56.7**	**23.**	**47.9**

Table 6. Peculiarities of the occurrence of skin changes in patients by age and sex

		Blood cones (n=41)		Cracks (n=80)		Red dermographism (n=138)		Scabies (n=159)	
		Abs.	**%**	**Abs.**	**%**	**Abs.**	**%**	**Abs.**	**%**
Man	<18	9.	40.91	20.	46.51	28.	50.	35.	49.3
	18-44.	8.	36.36	13.	30.23	19.	33.9	20.	28.2
	45-59.	3.	13.64	4.	9.302	6.	10.7	9.	12.7
	60-74	2.	9.091	6.	13.95	3.	5.36	7.	9.86
		22.	**53.66**	**43.**	**53.75**	**56.**	**40.6**	**71.**	**44.7**
Woman	<18	4.	21.05	9.	24.32	27.	32.9	28.	31.8
	18-44.	13.	68.42	19.	51.35	28.	34.1	35.	39.8
	45-59.	1.	5,263	5.	13.51	18.	22.	16.	18.2
	60-74	1.	5,263	4.	10.81	9.	11.	9.	10.2
		19.	**46.34**	**37.**	**46.25**	**82.**	**59.4**	**88.**	**55.3**

Table 7. Age and sex characteristics of skin changes in patients

		Lichenication (n=32)		Whiteish-silvery flaky (n=13)		Cortex (n=5)		Scale (n=43)	
		Abs.	**%**	**Abs.**	**%**	**Abs.**	**%**	**Abs.**	**%**
Man	<18	6.	40.	4.	44.4	1.	33.	11.	47.8
	18-44.	2.	13.3	4.	44.4	1.	33.	4.	17.4
	45-59.	3.	20.	0	0	0	0	3.	13.
	60-74	4.	26.7	1.	11.1	1.	33.	5.	21.7
		15.	**46.9**	**9.**	**69.2**	**3.**	**60.**	**23.**	**53.5**
Woman	<18	6.	35.3	2.	50.	1.	50.	6.	30.
	18-44.	10.	58.82	1.	25.	1.	50.	9.	45.
	45-59.	1.	5.882	0	0	0	0	3.	15.
	60-74	0	0	1.	25.	0	0	2.	10.
		17.	**53.1**	**4.**	**30.77**	**2.**	**40.**	**20.**	**46.5**

Nodules (n=262, 87.9%) in men - 120 (45.8%), in women - 142 (54.2%). The greatest number was observed in patients younger than 18 years: 47.5% in men, 33.8% in women. Consequently, nodular elements clearly prevail in childhood and adolescence ($p<0.01$). Blisters (n=181, 60.7%) in men - 87 (48.1%), in women - 94 (51.9%). In the 18-44 age category, women prevailed (42.6%), and men - 29.9% ($p<0.05$). This indicates that vesicular elements are more pronounced in women of reproductive age. Excoriations (n=203, 68.1%) in men - 88 (43.4%), in women - 115 (56.7%). In women, excoriations were recorded at a high level ($\chi 2=5.3$; $p<0.05$). Most often in the age group 18-44: 27.3% in men and 41.7% in women. This condition is associated with symptoms of itching. scratches (n=48, 16.1%) in men - 25 (52.1%), in women - 23 (47.9%). There is no significant difference between the sexes ($p>0.05$). More often in patients under 18 years of age (48% in men, 30.4% in women).

Hence, it was established that: nodes are the most common element and are significantly predominant, especially in children and adolescents ($p<0.01$). Blisters are more common in women, especially in the reproductive age ($p<0.05$). Excoriations were more often noted in women ($p<0.05$), which is explained by itching and scratching of the skin. scratches are less common (16.1%), and there is no significant difference between the sexes. These results indicate the age-specific manifestation of morphological elements and justify the need for an individual approach to further treatment.

The multifaceted nature of the clinical manifestations of chronic allergic dermatoses causes various pathological elements on the skin. These include bloody plaques, fissures, red dermographism, and scabies. According to the literature, these symptoms are often associated with the duration of the disease, itching syndrome, and excessive reactivity of the immune response (Wang et al., 2020; Silverberg, 2017). Therefore, the analysis of the prevalence of these morphological changes by age and sex is of great importance in assessing the severity and clinical scenarios of the disease (Table 6).

In this table, blood clots (n=41, 13.8%) men - 22 (53.7%), women - 19 (46.3%). Most often, it was observed in children under 18 years of age: 40.9% in men, 21.1% in women. Thus, in childhood, it was significantly more frequent in men ($p<0.05$). Fissures (n=80, 26.8%) in men - 43 (53.8%), in women - 37 (46.3%). Mostly younger than 18 and predominantly between 18 and 44 years of age. In men, it is more often observed in childhood (46.5%), and in women - at the age of 18-44 years (51.3%). This indicates an age-specific difference ($\chi2=4.2$; $p<0.05$). Red dermographism (n=138, 46.3%) in men - 56 (40.6%), in women - 82 (59.4%). Significantly more in women ($p<0.01$).

By age, the greatest number of children are under 18 and 18-44 years old: 50% and 33.9% in men, 32.9% and 34.1% in women. This indicates that allergic reactivity and vascular hypersensitivity are more pronounced in women. Scabies (n=159, 53.4%) in men - 71 (44.7%), in women - 88 (55.3%). Among the sexes, women prevailed ($p<0.05$). Most often observed in the age group under 18 and 18-44 years: 49.3% and 28.2% in men, 31.8% and 39.8% in women. This condition is associated with itching and scratching of the skin, indicating a greater recurrence in women.

Analysis of the above table showed that bloody balls are more common in men in childhood ($p<0.05$). Fissures were most often noted in men in childhood, but prevailed in women in childhood ($p<0.05$). Red dermographism was significantly more common in women ($p<0.01$). Scabies was also more often noted in women ($p<0.05$), especially in reproductive age. These data indicate the presence of age and gender characteristics of the clinical elements in allergic dermatoses and justify the need for an individual therapeutic approach.

In chronic allergic dermatoses, the morphological elements of the skin are often associated with the duration and severity of the disease. Changes such as lichenification, scaling, and scales are often formed as a result of prolonged itching and recurrent inflammatory processes. As noted in the literature, patients with these symptoms are more likely to have a chronic and resistant state (Kim et al., 2019; Silverberg, 2017). Therefore, the analysis of the prevalence of these elements by age and sex is important for determining the clinical prognosis and treatment tactics (Table 7).

In this table Lichennification (n=32, 10.7%) in men - 15 (46.9%), in women - 17 (53.1%). There is a slight predominance in women, mainly at the age of 18-44 years (58.8%). In men, it is evenly distributed by age category, 26.7% at 60-74 years. This indicates a prolonged course of itching and inflammation in women of reproductive age ($p<0.05$). Silvery-white flakes (n=13, 4.4%) in men - 9 (69.2%), in women - 4 (30.8%). Most often recorded in men ($p<0.05$). Men were mainly under 18 years of age and 18-44 years of age (44.4% each). Women are under 18 and 60-74 years old.

Cortex (n=5, 1.7%) in men - 3 (60%), in women - 2 (40%). The rare sign was prevalent in men in all age categories, while in women it was mainly prevalent in those younger than 18 and 18-44 years of age. No significant difference was observed by sex and age ($p>0.05$). Money (n=43, 14.4%) in men - 23 (53.5%), and in women - 20 (46.5%). The gender difference is insignificant ($p>0.05$) in men under 18 years old (47.8%), and in women 18-44 years old (45%). This indicates a higher incidence in men in childhood and in women in youth.

The following patterns were revealed from this analysis: Lichennification was more often registered in women of reproductive age ($p<0.05$), which indicates a prolonged course of the disease. Silvery-white flakes were more often observed in men, especially in childhood and youth ($p<0.05$). The cortex is a rare sign, and no significant difference in sex and age was noted. The coin prevails in men in childhood and in women in reproductive age.

These data indicate the manifestation of chronic and prolonged features of clinical elements in allergic dermatoses depending on age and sex factors.

4. Conclusions

In the analysis of gender distribution, women predominated among patients with allergic contact dermatitis (61.0%), while atopic dermatitis was more common in men (29.7% versus 18.8% in women). Although gender differences were evident in specific nosological forms, statistical significance was confirmed mainly for allergic contact dermatitis ($p<0.05$), while in eczema and other rare variants the differences were not significant ($p>0.05$).

When assessing the age structure, patients under 18 years accounted for a significant proportion of cases with atopic dermatitis (75.6% in boys and 66.7% in girls), whereas in the age group of 18–44 years allergic contact dermatitis predominated, particularly among women (42.3%). In the elderly (60–74 years), the distribution of forms was more balanced, without reliable differences between men and women ($p>0.05$).

The analysis of treatment methods revealed that standard protocols were used more frequently by women (55.6%), while folk medicine was more commonly practiced by men (48.8%). Although these differences in distribution did not reach statistical significance for folk methods ($p>0.05$), the predominance of women in standardized therapy was significant ($p<0.05$).

Morphological manifestations showed clearer differences: nodules predominated in children and adolescents (47.5% in boys and 33.8% in girls, $p<0.01$), blisters were more common in women of reproductive age (42.6% versus 29.9% in men, $p<0.05$), and excoriations were significantly more frequent in women across all age groups ($p<0.05$). Chronic elements such as lichenification were more typical in women aged 18–44, whereas silvery-white flakes were significantly more common in men, especially in childhood and youth ($p<0.05$).

Thus, the study demonstrated that chronic allergic dermatoses exhibit pronounced gender- and age-related features in both clinical forms and morphological manifestations. The use of standard protocols was associated with more favorable outcomes, while reliance on folk medicine correlated with a more prolonged and recurrent course. These findings underline the importance of individualized treatment strategies, patient education, and adherence to evidence-based protocols in the management of chronic allergic dermatoses.

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