

# Comparative Evaluation of Standard Medical Protocols and Folk Medicine Approaches in the Management of Chronic Allergic Dermatoses

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**Abstract Background.** Chronic allergic dermatoses (CAD) remain one of the most prevalent dermatological disorders worldwide, substantially impairing quality of life and frequently requiring long-term treatment. Despite the existence of standardized medical protocols, many patients continue to use folk medicine, which may influence the course and recurrence of disease. **Aim.** To evaluate the clinical and epidemiological characteristics of CAD and compare the effectiveness of standard medical protocols versus traditional folk medicine approaches, taking into account gender- and age-specific differences. **Materials and Methods.** A clinical-epidemiological study was conducted among 298 patients with CAD (138 men, 160 women; mean age 29.2±1.2 years). Patients were stratified into two treatment groups: standard medical protocols (n=169) and folk medicine methods (n=129). Comparative analyses were performed by sex, age, nosological forms (allergic contact dermatitis, atopic dermatitis, eczema, others), and morphological elements (nodules, blisters, excoriations, fissures, lichenification, scaling). Statistical tests included  $\chi^2$  t-test, and p-values. **Results.** Allergic contact dermatitis predominated in women (61.0%, p<0.05), while atopic dermatitis was more common in men (29.7% vs 18.8%, p<0.05). Nodules were the most frequent element in children and adolescents (p<0.01), blisters predominated in women of reproductive age (p<0.05), and excoriations were significantly more frequent in women (p<0.05). Patients managed with standard protocols achieved faster remission, fewer relapses, and reduced chronic changes compared to those relying on folk remedies. **Conclusions.** Gender and age significantly influence the clinical profile of CAD. Standardized therapy provides more stable remission and fewer relapses, whereas folk medicine is associated with prolonged disease activity. These findings emphasize the importance of individualized treatment strategies, patient education, and adherence to evidence-based protocols.

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

## 1. Introduction

Chronic allergic dermatoses (CAD) are among the most common inflammatory skin diseases globally, affecting up to 20–25% of the population according to WHO estimates. Their prevalence continues to rise, particularly in industrialized and developing countries, due to environmental pollution, increasing allergen exposure, dietary changes, and lifestyle factors. CAD encompasses a wide spectrum of clinical entities, including allergic contact dermatitis, atopic dermatitis, and eczema, which together account for more than 70% of chronic allergic skin conditions [1,3].

The burden of CAD extends beyond physical symptoms

such as itching, excoriations, and recurrent relapses. These conditions substantially reduce quality of life, impair sleep, and contribute to psychosocial stress in both children and adults [2,4]. Epidemiological studies demonstrate that women of reproductive age are more prone to allergic contact dermatitis, whereas atopic dermatitis predominates in childhood and is more frequent in boys [7,8]. Such gender- and age-specific patterns highlight the complex interaction between hormonal status, environmental triggers, and genetic predisposition.

Despite the availability of standardized therapeutic protocols, including topical corticosteroids, antihistamines, and immunomodulators, many patients continue to seek relief through traditional folk medicine methods. In Central Asia and Uzbekistan in particular, the use of herbal remedies, ointments, and home-based therapies remains widespread. According to reports, up to 40–45% of patients incorporate such approaches into their management strategies [5,6].

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While some traditional methods may provide symptomatic relief, their unregulated and inconsistent use often delays remission, exacerbates disease chronicity, and increases the risk of complications [9,10].

Considering the multifactorial nature of CAD and the variability of treatment adherence, there is a pressing need to evaluate the clinical effectiveness of evidence-based medical protocols in comparison with folk remedies. Moreover, detailed analysis of gender- and age-related clinical patterns, nosological distribution, and morphological features is crucial for developing individualized management strategies tailored to patient-specific risk factors.

## 2. Purpose of the Study

The primary purpose of this study was to evaluate the clinical and epidemiological characteristics of chronic allergic dermatoses (CAD) in relation to gender and age distribution. Particular emphasis was placed on identifying the prevalence of different nosological forms, such as allergic contact dermatitis, atopic dermatitis, eczema, and other variants.

Additionally, the study aimed to compare the effectiveness of standard medical protocols (glucocorticoids, antihistamines, topical therapies) with that of traditional folk medicine approaches, either used independently or in combination. By assessing treatment outcomes, morphological features of the skin, and recurrence rates, the study sought to determine which approaches ensured faster remission, fewer relapses, and improved patient adherence.

Ultimately, the research was intended to provide a scientific basis for the development of individualized treatment strategies, optimize diagnostic and therapeutic algorithms, and strengthen patient education in order to improve the overall management of chronic allergic dermatoses.

## 3. Materials and Methods

A comprehensive clinical and epidemiological study was conducted among 298 patients diagnosed with chronic allergic dermatoses (CAD) at the Department of Folk Medicine, Occupational Diseases and Allergology of the Bukhara State Medical Institute between 2022 and 2024. The study population included 138 men (46.3%) and 160 women (53.7%) with an overall mean age of  $29.2 \pm 1.2$  years (range 1–74 years). Patients were enrolled according to predefined criteria: only those with clinically or histologically confirmed CAD of at least six months duration and complete medical documentation were included, while cases with acute infections, autoimmune diseases, severe systemic pathology, or incomplete records were excluded.

All patients were divided into two treatment groups: Group I ( $n=169$ ) received therapy according to standard medical protocols including glucocorticoids, antihistamines, topical corticosteroids, emollients, and immunomodulators, while Group II ( $n=129$ ) predominantly relied on folk medicine approaches such as herbal decoctions, ointments based on

natural oils, and traditional compresses, either independently or in combination with modern therapy.

Each patient underwent detailed demographic, clinical, and epidemiological assessment, including analysis of age, sex, disease duration, nosological form (allergic contact dermatitis, atopic dermatitis, eczema, or other variants), morphological elements of the skin (nodules, blisters, excoriations, fissures, lichenification, scaling, erythema, etc.), and treatment outcomes such as time to remission, recurrence frequency, and severity of chronic manifestations. Statistical analysis was performed using SPSS 26.0 software. Continuous variables were expressed as mean  $\pm$  standard error, while categorical variables were compared using the  $\chi^2$  test. Differences were considered statistically significant at  $p < 0.05$ .

## 4. Results

A total of 298 patients with chronic allergic dermatoses (CAD) were examined, including 138 men (46.3%) and 160 women (53.7%). The mean age was  $29.2 \pm 1.2$  years, ranging from 1 to 74 years. Women were significantly older than men on average ( $30.6 \pm 1.13$  vs.  $27.7 \pm 1.27$  years,  $p < 0.05$ ).

Analysis by age groups showed that CAD occurred across all life stages. In patients under 18 years ( $n=112$ , 37.6%), the prevalence was higher among boys (44.2% vs. 31.9% in girls,  $p < 0.05$ ). In the 18–44 year group ( $n=108$ , 36.2%), women predominated (41.3% vs. 30.4%,  $p < 0.05$ ), while the 45–59 year group accounted for 15.4% of cases and the 60–74 year group 10.7%, with no significant gender differences in elderly patients.

Regarding nosological distribution, allergic contact dermatitis was diagnosed in 161 patients (54.0%), significantly more common in women (61.0%,  $p < 0.05$ ). Atopic dermatitis was observed in 74 patients (24.8%), more frequent in men (29.7% vs. 18.8%,  $p < 0.05$ ), particularly in childhood where it was registered in 75.6% of boys and 66.7% of girls. Eczema was recorded in 40 patients (13.4%), with no significant gender difference, but most cases occurred in the 18–44 age group. Other rare forms were found in 26 patients (8.7%), predominantly in older individuals.

Morphological analysis revealed nodules in 262 patients (87.9%), blisters in 181 (60.7%), excoriations in 203 (68.1%), fissures in 80 (26.8%), red dermographism in 138 (46.3%), and scabies in 159 (53.4%). Nodules predominated in children and adolescents (47.5% of boys, 33.8% of girls,  $p < 0.01$ ). Blisters were significantly more frequent in women of reproductive age (42.6% vs. 29.9%,  $p < 0.05$ ). Excoriations were also more common in women overall (56.7% vs. 43.4%,  $p < 0.05$ ), especially in the 18–44 year group. Chronic features such as lichenification (10.7%) occurred mainly in women aged 18–44 years (58.8%,  $p < 0.05$ ), while silvery-white plaques (4.4%) were more frequent in men, particularly children and adolescents ( $p < 0.05$ ).

Treatment methods also varied. Standard medical protocols were applied in 169 patients (56.7%), predominantly among

women (55.6%,  $p < 0.05$ ). Folk medicine was used by 129 patients (43.3%), slightly more common among men (48.8%), though the difference was not statistically significant. Clinical outcomes differed substantially: those treated with standardized protocols experienced faster remission, lower recurrence rates, and fewer chronic changes, whereas patients relying on folk medicine demonstrated prolonged disease activity and more frequent relapses.

## 5. Discussion

The results of this study clearly demonstrate that chronic allergic dermatoses are influenced by a combination of demographic, clinical, and therapeutic factors. Gender and age played a decisive role in determining both the form and severity of CAD. Women, particularly of reproductive age, were more prone to allergic contact dermatitis and presented with blisters and excoriations, reflecting exposure to cosmetic agents, detergents, and household allergens, as well as hormonal influences. Men, especially in childhood, were more affected by atopic dermatitis, consistent with literature describing a higher prevalence of atopy in boys due to immunological immaturity and genetic susceptibility.

The observed differences in morphological features underscore the heterogeneity of CAD. Nodules predominated in childhood, indicating active inflammation and immune hyperreactivity at younger ages. Blisters were more common in women, possibly due to hormonal modulation of skin barrier function and immune response. Excoriations were linked to pruritus severity and were significantly more frequent in women, suggesting psychosocial factors such as stress and lower tolerance thresholds. Chronic features such as lichenification and scaling were characteristic of long-standing disease in adults, while silvery-white plaques were particularly associated with male patients in childhood, supporting the concept of sex-linked immunological pathways.

A particularly important finding is the difference in outcomes between patients managed according to standard medical protocols and those relying on folk remedies. Standard therapy, based on corticosteroids, antihistamines, and immunomodulators, ensured faster remission and lower recurrence rates, confirming the value of evidence-based approaches. In contrast, the use of folk medicine was associated with delayed healing, recurrent relapses, and more frequent chronic changes such as fissures and scabies. These findings align with international guidelines (EDF, 2020; WHO, 2021), which emphasize adherence to standardized care as the cornerstone of management.

Nevertheless, the widespread use of folk medicine in our cohort (43.3%) reflects cultural traditions, limited access to modern therapies, and mistrust of pharmacological agents. This reality underscores the need for targeted patient education, with physicians playing an active role in explaining treatment benefits and risks. Moreover, some folk practices may contain biologically active substances that can complement evidence-based therapies if used under medical

supervision. Future research should aim to integrate validated elements of traditional medicine into combined treatment regimens, but only within controlled, scientific frameworks.

Taken together, these findings highlight that CAD is not a uniform condition but a dynamic process shaped by demographic, immunological, and socio-cultural determinants. The identification of gender- and age-specific features, as well as the clear superiority of standardized treatment, provides a strong rationale for developing individualized management strategies. By tailoring therapy to demographic characteristics and improving adherence to evidence-based protocols, clinicians can achieve better outcomes, reduce recurrence, and ultimately improve quality of life for patients with chronic allergic dermatoses.

## 6. Conclusions

The results of this clinical and epidemiological study of 298 patients with chronic allergic dermatoses (CAD) provide new insights into the role of age, gender, and treatment strategies in shaping the course of the disease. Our findings demonstrate that CAD is a heterogeneous group of conditions characterized by distinct demographic and morphological patterns. Allergic contact dermatitis was most prevalent among women, while atopic dermatitis predominated in boys and young men, confirming both environmental and genetic contributions. Eczema and other rare forms were more common in middle-aged and elderly patients, reflecting the lifelong persistence of allergic skin diseases.

Analysis of morphological features revealed that nodules were the leading manifestation in childhood and adolescence, whereas blisters and excoriations predominated in women of reproductive age. Chronic signs such as lichenification and scaling were strongly associated with adult patients, indicating recurrent and resistant disease. These differences highlight the necessity of considering both age and gender in the diagnostic and therapeutic planning of CAD.

A key outcome of this study is the clear demonstration that standardized medical protocols ensure superior clinical results compared to traditional folk medicine methods. Patients treated with evidence-based protocols experienced shorter remission periods, lower recurrence rates, and fewer chronic morphological changes. In contrast, reliance on folk remedies was associated with delayed recovery, higher frequency of relapses, and persistent disease activity. Although folk medicine remains widely used in the region, often due to cultural traditions and accessibility, its uncontrolled application may compromise treatment outcomes and quality of life.

These findings emphasize several practical implications. First, clinicians should actively promote adherence to standardized treatment guidelines and educate patients about the risks of relying solely on folk remedies. Second, individualized management strategies must be developed, taking into account gender- and age-specific clinical features. Third, the integration of cultural practices into medical care

may be beneficial only when they complement, rather than replace, evidence-based approaches.

In conclusion, chronic allergic dermatoses represent a complex public health problem requiring a multidisciplinary and patient-centered approach. Standardized therapy remains the most effective option for achieving remission and preventing relapses, while targeted patient education is crucial for improving adherence. Future research should explore immunological and genetic factors underlying gender- and age-specific differences, as well as the potential for safe integration of selected folk methods into holistic treatment models.

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