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REFINING THE THERAPEUTIC USE OF GOOSE FAT NATURAL OINTMENT IN CHRONIC ALLERGIC SKIN CONDITIONS

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Annotation. According to current data from the World Health Organization (WHO), allergic dermatitis affects approximately 15% of the global population. On a global scale, it accounts for 20% to 40% of all dermatological conditions. The prevalence among pediatric populations can reach up to 20%, while among adults, it ranges between 2% and 8%. The condition affects males and females equally. Higher incidence rates are observed in regions characterized by advanced industrial development, particularly those with extensive chemical production. In European countries, contact dermatitis affects an estimated 10% to 15% of the adult population. Conversely, certain areas in Asia and Africa report relatively lower prevalence rates. The burden of chronic allergic dermatitis is notably greater in industrialized and urbanized settings, where it is estimated that 1 to 2 individuals per 100 may suffer from the condition.

Key words: allergic dermatit, chemical industries, contact dermatit.

Abstract: Allergic dermatitis remains one of the most widespread inflammatory skin conditions globally. According to World Health Organization (WHO) statistics, approximately 15% of the global population is affected by this condition, and it accounts for 20–40% of all dermatological disorders worldwide. The disease exhibits a particularly high prevalence among children, with reported rates reaching up to 20%, while adult populations demonstrate a prevalence ranging from 2% to 8% [1,2]. Allergic contact dermatitis, a subtype of allergic dermatitis, is a non-infectious skin disorder characterized by immune-mediated inflammatory responses following direct contact with specific allergens. Despite its non-contagious nature, the disease poses a significant public health concern due to its chronic and recurrent course [3]. Epidemiological studies indicate no significant difference in prevalence between males and females. However, regional disparities in incidence are observed. In industrialized countries, allergic dermatoses are reported in up to 30% of the population, often linked to increased exposure to chemical irritants and environmental allergens. Furthermore, in over one-third of affected individuals, the condition persists into adulthood, negatively impacting quality of life and work productivity [4,5]. The growing incidence of allergic skin diseases is attributed to multiple factors, among which the immunosuppressive effects of modern lifestyle and environmental pollution play a central role. Urbanization, industrial development, and widespread use of synthetic chemicals contribute to immune dysregulation, making individuals more susceptible to allergic reactions [6,7]. Given the limitations and side effects associated with long-term use of corticosteroids and antihistamines, increasing attention has been directed toward natural remedies with anti-inflammatory and regenerative properties. Among these, goose fat—a traditional animal-based product—has shown promise due to its emollient, antioxidant, and

skin barrier-restoring effects [8].

The purpose of the study: to justify the effectiveness of using goose fat for the treatment of allergic dermatitis.

Materials and methods. 62 patients with chronic allergic dermatitis participated in the study. Patients were divided into two groups: a group treated with traditional medicine and a group treated with folk medicine.

Patients participating in the study were diagnosed with chronic allergic dermatitis and were in various stages of the disease. During the selection process, the age, gender, duration and complexity of the disease were taken into account. Consent for participation and data disclosure was obtained from patients prior to the study.

Patients were assessed with special quantitative scales (eg SCORAD - Scoring Atopic Dermatitis) and other skin-related symptoms. Patients were evaluated for symptoms such as itching, redness, inflammation, and dryness of the skin. Blood eosinophils, IgE levels and other allergy-related indicators were analyzed.

Glucocorticoids and antihistamine drugs, as well as skin care products, were used as traditional treatment. Natural ointment with goose fat was used for treatment using folk medicine methods. The effectiveness of treatment was evaluated based on disease symptoms or their absence. Disease recurrence, reduction or disappearance of symptoms were taken as primary indicators. The research results were analyzed using statistical methods. These analyzes were used to determine differences between treatment groups and to evaluate the effectiveness of each treatment.

Results and discussion: 62 patients with chronic allergic dermatitis participated in the study. These patients were divided into two groups: traditional medical treatment (TMT) group and folk medicine methods (FMM) group. In the study, when IgE levels were checked before and after treatment, the following results were noted:

Table 1

Dynamics of IgE amount during the study

Methods of treatment	IgE before treatment	Post-treatment IgE
Traditional treatment	200 IU/ml	182.4 IU/ml
Treatment using goose fat ointment	200 IU/ml	141.5 IU/ml

Both groups of patients in the study had the same amount of IgE before treatment, was equal to 200 IU/ml. After traditional treatment, it decreased by 1.09 times to 170 IU/ml, and after using goose fat ointment in patients treated with folk medicine The amount of IgE decreased to 140 IU/ml. This is a 1.4 times improvement compared to the initial indicators. When both

methods were compared, it was confirmed that the use of Natural ointment with goose fat was 1.2 times more effective.

Post-treatment changes in clinical symptoms in patients in the study group are presented in figure 1.

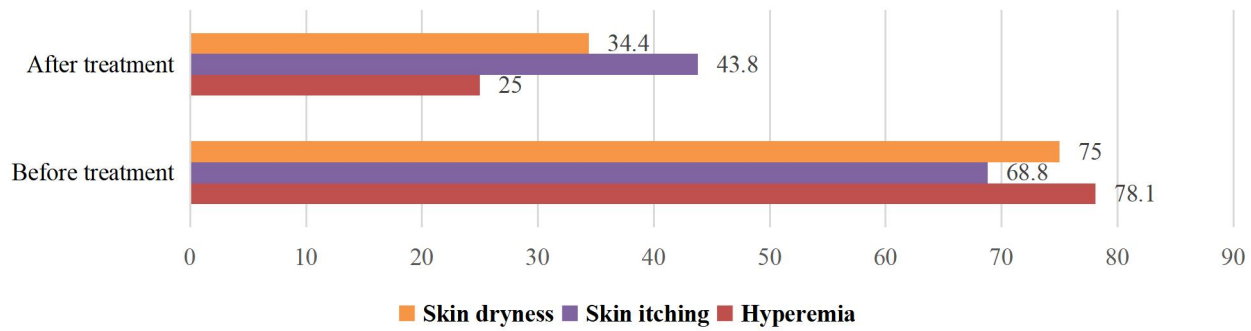


Figure 1. The occurrence of clinical symptoms after therapeutic use of natural ointment with goose fat in patients in the study group

Before treatment, hyperemia was noted in 25 (78.1%) patients, skin itching in 22 (68.8%), skin dryness in 24 (75.0%) patients, and after treatment, the number of patients with hyperemia decreased by 3.1 times. In 8 (25.0) patients, skin itching decreased by 1.57 times in 14 (43.8%) patients, skin dryness was detected in 11 (34.4%) patients.

The occurrence of clinical symptoms after traditional treatment in patients in the study group is presented in figure 2.

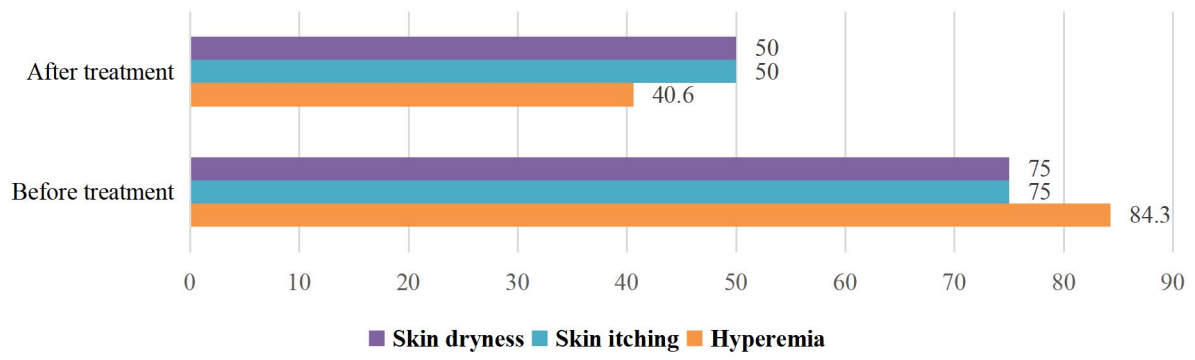


Figure 2. The occurrence of clinical symptoms after the use of traditional medicine in patients in the study group

Before traditional treatment, hyperemia was noted in 27 (84.3%) patients, skin itching in 16 (75.0%) patients, and skin dryness in 16 (75.0%) patients. After treatment, the number of patients with hyperemia decreased by 2.07 times to 13 (40.6) patients, skin itching and skin dryness decreased by 1.5 times in 16 (50.0 %) patients, 16 (50.0 %) patients were observed.

Figure 3 and 4 below shows the condition of patients before and after natural ointment with goose fat treatment.



Figure 3. Allergic dermatitis on the face of patients before use natural ointment with goose fat



Figure 4. Healing of allergic dermatitis on the face of patients after the use of natural ointment with goose fat

Based on the results of the study, differences in effectiveness were noted between traditional medical treatment and folk medicine methods. Patients in the TT group showed a slower reduction in symptoms, but in some cases, adverse effects were observed. This condition may be due to the strong effect of glucocorticoid and antihistamine drugs.

On the other hand, in the group of folk medicine methods (natural ointment with goose fat), the use of natural remedies gave good results in patients without adverse effects. These methods have been shown to be harmless to the body and acceptable for long-term use.

Conclusions: Prior to treatment with folk medicine methods, hyperemia was observed in 25 patients (78.1%), skin itching in 22 patients (68.8%), and dry skin in 24 patients (75.0%). Following treatment, the number of patients with hyperemia decreased 3.1-fold to 8 patients (25.0%), itching decreased 1.57-fold to 14 patients (43.8%), and dry skin was noted in 11 patients (34.4%).

In the group receiving traditional medical treatment, hyperemia was initially observed in 27 patients (84.3%), itching in 24 patients (75.0%), and dry skin in 24 patients (75.0%). After treatment, hyperemia decreased by 2.07 times to 13 patients (40.6%), while itching and dryness were reduced by 1.5 times, each reported in 16 patients (50.0%). A noticeable difference in therapeutic efficacy was observed between the traditional treatment group and the group treated with folk medicine methods. Patients receiving traditional pharmacological therapy demonstrated a comparatively slower resolution of symptoms, and in some cases, adverse reactions were reported. These side effects may be attributed to the potent pharmacodynamic effects of glucocorticoids and antihistamines commonly used in conventional therapy. In contrast, the use of folk remedies, particularly those based on natural ingredients such as goose fat, appeared to promote symptom relief with fewer side effects and improved tolerability.

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