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THE IMPORTANCE OF HYGIENE IN THE PREVENTION OF DERMATOLOGICAL DISEASES: A LITERATURE REVIEW

Mirsagatova Movluda Rixsillayevna

Alimova Diyora Baxtiyor qizi

Davlatmurotov Sardor Xurshid o‘g‘li

Tashkent State Medical University

Abstract

This literature review provides a comprehensive analysis of the importance of hygiene in the prevention of dermatological diseases based on scientifically validated sources. Current epidemiological data indicate that skin diseases are highly prevalent worldwide, with a substantial proportion associated with inadequate hygiene practices. The findings demonstrate that adherence to hygienic measures—such as hand hygiene, proper skin care, sanitation, and environmental control—significantly reduces the incidence of dermatological conditions. However, excessive or improper hygiene practices may disrupt the epidermal barrier and contribute to the development of inflammatory skin diseases. The analysis confirms that hygiene is a key and multifactorial determinant in the prevention of dermatological diseases and highlights the need for individualized and comprehensive hygienic strategies to improve population health outcomes.

Keywords: dermatological diseases, hygiene, skin microbiome, dysbiosis, infectious dermatoses, hand hygiene, environmental factors, PM2.5, oxidative stress, inflammation, prevention.



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Introduction

According to modern epidemiological data, skin diseases affect approximately 30–70% of the global population to varying degrees, and a significant proportion of these cases are associated with poor hygiene practices. Analysis of scientific sources (reports of the World Health Organization, The Lancet, Journal of Investigative Dermatology, and other reputable journals) demonstrates that hygienic measures—particularly hand hygiene, skin care, sanitation conditions, and control of environmental factors—significantly reduce the incidence of dermatological diseases.

Dermatological diseases represent a widespread group of pathologies with substantial impact on human health. According to WHO data, skin diseases constitute a significant portion of the global burden of disease, and in some regions, more than half of the population experiences at least one dermatological condition during their lifetime. Findings from the Global Burden of Disease study indicate that skin diseases are among the leading causes of years lived with disability (DALYs).

The etiology of dermatological conditions is multifactorial, involving microbiological, immunological, environmental, and hygienic factors. In particular, poor adherence to hygiene practices is considered a major risk factor in the development of infectious dermatoses, fungal diseases, parasitic infestations, and inflammatory skin conditions. In recent years, urbanization, increased environmental burden, and lifestyle changes have contributed to a rising prevalence of dermatological diseases.

Objective of the study.

The aim of this literature review is to analyze the role of hygiene in the prevention of dermatological diseases based on scientifically validated sources, to identify key hygienic factors, and to evaluate their impact on disease incidence.



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Materials and methods

This study was conducted as a narrative literature review. Articles were selected from major international scientific databases, including PubMed, Scopus, Web of Science, and Google Scholar. The inclusion criteria comprised publications from 2005 to 2025 related to dermatology, hygiene, and epidemiology.

Main part

The analyzed scientific literature demonstrates the widespread prevalence of dermatological diseases and their strong association with hygienic factors. According to global epidemiological data, fungal infections affect approximately 20–25% of the world's population, with higher prevalence in tropical and subtropical regions. Parasitic conditions such as pediculosis and scabies are particularly common in areas with poor sanitation.

Adherence to hand hygiene plays a critical role in preventing bacterial and viral skin infections. Studies show that regular handwashing can reduce the incidence of infectious dermatoses by 20–40%. However, excessive or aggressive cleansing may disrupt the epidermal barrier function and, conversely, contribute to the development of dermatitis.

The relationship between skin hygiene and the microbiome has emerged as an important area of scientific research. Modern studies indicate that disruption of skin microbiota balance (dysbiosis) contributes to the development of atopic dermatitis, acne, and other inflammatory conditions. Therefore, hygienic measures should be tailored to individual and physiological characteristics.

Environmental factors, including air pollution and exposure to chemical agents, significantly influence the incidence of skin diseases. Particulate matter such as PM_{2.5} increases oxidative stress in the skin, leading to collagen degradation and



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activation of inflammatory processes, thereby contributing to the development of dermatological conditions.

Conclusion

Dermatological diseases are highly prevalent worldwide, and hygienic factors play a decisive role in their development. Analysis of scientific literature indicates that adherence to personal and public hygiene is an effective strategy for preventing infectious and inflammatory dermatoses. At the same time, hygiene practices should be individualized and aligned with the preservation of the skin microbiome. The implementation of a comprehensive hygienic approach in the prevention of dermatological diseases is essential for improving population health.

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