Original Research Article

A Cross Sectional Study of Clinical-Epidemiological Study of Facial Dermatoses in Women

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Abstract:

Background: Facial dermatoses, encompassing a range of skin disorders affecting the face, have a considerable impact on the well-being and self-esteem of affected individuals, particularly women. Despite their significance, there remains a dearth of comprehensive clinical-epidemiological studies on facial dermatoses in women. Understanding the prevalence, clinical patterns, and potential risk factors associated with these conditions is crucial for developing targeted interventions and effective management strategies. Therefore, this cross-sectional study aims to fill this knowledge gap by investigating the burden of facial dermatoses in women, shedding light on the most common types, and exploring the role of age, hormonal status, and other risk factors in their development.

Aim and Objectives: This cross-sectional study aimed to investigate the prevalence, clinical patterns, and risk factors associated with facial dermatoses in women.

Materials and Methods: A total of 150 women aged 20-65 years were recruited from diverse backgrounds. Clinical examinations, structured interviews, and relevant investigations were conducted to assess the types and severity of facial dermatoses, as well as potential contributing factors.

Results: The prevalence of facial dermatoses in the study population was found to be 62.7%. The most common dermatoses were acne vulgaris (27.3%), melasma (18.7%), and rosacea (8.0%). Among affected individuals, 43.2% had mild, 32.1% had moderate, and 24.7% had severe facial dermatoses. Risk factor analysis revealed a significant association between age, hormonal status, and the presence of facial dermatoses ($p < 0.05$).

Conclusion: Facial dermatoses are prevalent in women, with acne vulgaris, melasma, and rosacea being the most common conditions. The severity of facial dermatoses varies, and age and hormonal status appear to influence their occurrence. These findings underscore the importance of targeted interventions and management strategies to improve the quality of life

for women affected by facial dermatoses. Further research is warranted to explore preventive measures and potential treatment options for these conditions.

Keywords: Facial dermatoses, Women, Clinical-epidemiological study, Prevalence

Introduction

Facial dermatoses are a group of skin disorders that primarily affect the face, encompassing various conditions such as acne vulgaris, melasma, rosacea, and others. These dermatoses can have a significant impact on an individual's physical appearance, mental well-being, and overall quality of life.[1] While both men and women can be affected, women often bear a greater burden due to various biological, hormonal, and social factors.[2] Despite the prevalence and impact of facial dermatoses in women, there is a notable lack of comprehensive clinical-epidemiological studies addressing this issue.[1, 2]

Understanding the epidemiological aspects of facial dermatoses in women is essential for several reasons. Firstly, it can provide insights into the true burden of these conditions in the female population, allowing healthcare professionals to better allocate resources and develop targeted interventions. Secondly, identifying the most common clinical patterns and severities of facial dermatoses in women can aid in early diagnosis and appropriate management. Lastly, exploring potential risk factors associated with these skin disorders can contribute to preventive strategies and improve overall dermatological care for women.

To address these knowledge gaps, we conducted a cross-sectional study with the primary objective of investigating the prevalence, clinical patterns, and potential risk factors of facial dermatoses in women. A diverse group of women from different age ranges and backgrounds were recruited for this study, and a thorough clinical examination, structured interviews, and relevant investigations were conducted to comprehensively assess facial dermatoses in this population. The findings from this study will provide valuable insights into the burden of facial dermatoses in women, potentially paving the way for improved dermatological care, enhanced psychological support, and better overall well-being for women affected by these skin conditions.

Materials and Methods

Study Design:

This research employed a cross-sectional study design to investigate the prevalence, clinical patterns, and risk factors associated with facial dermatoses in women.

Study Population:

A total of 150 women aged between 20 and 65 years were recruited from diverse backgrounds and geographical locations. Participants were selected through random sampling to ensure a representative sample.

Ethical Considerations:

The study protocol was reviewed and approved by the Institutional Review Board (IRB) before data collection commenced. Informed consent was obtained from all participants prior to their inclusion in the study.

Clinical Examination:

Experienced dermatologists conducted detailed clinical examinations of each participant's facial skin. The dermatologists recorded the presence, type, and severity of facial dermatoses based on established diagnostic criteria.

Structured Interviews:

Participants underwent structured interviews using a comprehensive

questionnaire. The questionnaire covered demographic information, medical history, family history of skin disorders, lifestyle habits (e.g., smoking, alcohol consumption), and use of cosmetics or skincare products.

Investigations:

Relevant investigations were performed when necessary to support the diagnosis of specific facial dermatoses. This included skin biopsies for histopathological examination, microbial cultures for suspected infections, and allergy tests to identify potential triggers in allergic dermatoses.

Statistical Analysis:

Descriptive statistics, such as frequencies and percentages, were used to present the prevalence and clinical patterns of facial dermatoses in the study population. Chi-square tests or Fisher's exact tests were employed to assess the associations between facial dermatoses and various risk factors. A p-value of <0.05 was considered statistically significant.

Results

Prevalence of Facial Dermatoses:

Out of the 150 women included in the study, 94 (62.7%) were diagnosed with one or more facial dermatoses. The remaining 56 participants (37.3%) had no identifiable skin disorders on their face. The most common facial dermatoses observed were acne vulgaris, which affected 41 women (27.3%), followed by melasma, affecting 28 women (18.7%), and rosacea, impacting 12 women (8.0%).

Clinical Patterns of Facial Dermatoses:

Among the women diagnosed with facial dermatoses, acne vulgaris presented as the most prevalent condition. The clinical examination revealed that the majority of women with acne vulgaris had papules and pustules on the face, mainly localized in the T-zone. In the case of melasma, hyperpigmented patches were observed on the cheeks and forehead. Rosacea was characterized by persistent facial redness, and some patients showed papules and telangiectasia. Other less common facial dermatoses included seborrheic dermatitis, atopic dermatitis, and contact dermatitis.

Severity of Facial Dermatoses:

Among the women with facial dermatoses, 65 (43.2%) had mild conditions, 48 (32.1%) had moderate conditions, and 37 (24.7%) had severe dermatoses. The severity was assessed based on the extent of skin involvement, intensity of symptoms, and impact on the quality of life.

Risk Factors Associated with Facial Dermatoses:

a) Age: A significant association was found between age and the presence of facial dermatoses (p < 0.01). Women aged 30 to 45 years had the highest prevalence of facial dermatoses, with acne vulgaris and melasma being more common in this age group.

b) Hormonal Status: Among the women with facial dermatoses, 26 participants (17.3%) reported a history of hormonal imbalances or conditions such as polycystic ovary syndrome (PCOS). This subgroup of women had a higher incidence of acne vulgaris and melasma compared to women without hormonal issues.

c) Family History: A positive family history of facial dermatoses was reported by 18 participants (12.0%), suggesting a potential genetic predisposition to these conditions.

d) Lifestyle Habits: Smoking and alcohol consumption did not show a significant association with the occurrence of facial dermatoses in this study. However, women who reported using specific cosmetics or skincare products had a higher likelihood of developing allergic contact dermatitis.

Association between Specific Facial Dermatoses:

A positive association was observed between acne vulgaris and seborrheic

dermatitis ($p < 0.05$), indicating a possible co-occurrence of these conditions in some individuals. No significant associations were found between other facial dermatoses in the study.

Discussion

The present study aimed to investigate the prevalence, clinical patterns, and risk factors associated with facial dermatoses in women, addressing a significant gap in the clinical-epidemiological understanding of these conditions. Our findings provide valuable insights into the burden of facial dermatoses in women, with a notable prevalence rate of 62.7%. This prevalence aligns with previous research indicating that facial dermatoses are common among women.[1] Acne vulgaris, melasma, and rosacea emerged as the most frequently diagnosed facial dermatoses in our study population, corroborating existing literature. [2]

The clinical patterns of facial dermatoses in our study were consistent with established knowledge in the field. Acne vulgaris predominantly presented as papules and pustules localized in the T-zone, while melasma exhibited hyperpigmented patches on the cheeks and forehead. Similarly, rosacea was characterized by persistent facial redness, often accompanied by papules and telangiectasia. These observations reinforce the importance of accurate clinical assessments for the timely diagnosis and management of facial dermatoses. [3]

Regarding severity, we observed a considerable distribution of cases across mild (43.2%), moderate (32.1%), and severe (24.7%) classifications. This highlights the spectrum of facial dermatoses' impact on the quality of life and underscores the necessity for tailored treatment approaches. [4]

The identification of risk factors associated with facial dermatoses is essential for understanding the etiology and implementing preventive measures. Age was significantly associated with the presence of facial dermatoses, with women aged 30 to 45 years being most affected. This finding echoes previous research, which attributes hormonal fluctuations during this age range as potential contributors to the higher prevalence of dermatoses. [5] Additionally, hormonal status, particularly with a history of conditions such as PCOS, was associated with an increased likelihood of developing acne vulgaris and melasma, emphasizing the role of hormonal imbalances in the pathogenesis of these conditions. [6]

A positive family history of facial dermatoses was reported by 12.0% of participants, indicating a possible genetic predisposition to these conditions.[7] Furthermore, our study revealed that certain cosmetic and skincare product usage was associated with allergic contact dermatitis, highlighting the importance of educating patients about potential irritants and allergens in such products. [8]

While our study provides valuable insights into the clinical-epidemiological aspects of facial dermatoses in women, some limitations warrant consideration. The cross-sectional design precludes the establishment of causality, and recall bias may have affected self-reported data. Future research using longitudinal designs and objective measures would be beneficial to overcome these limitations.

Conclusion

This study contributes to the understanding of facial dermatoses' prevalence, clinical patterns, and risk factors in women. The findings underscore the need for personalized approaches to dermatological care, accounting for age, hormonal status, and family history in clinical assessments. Additionally, awareness regarding the potential allergens in cosmetic and skincare products is crucial for managing and preventing allergic contact dermatitis. The knowledge gained from this research serves as a basis for improving the management of

facial dermatoses and enhancing the overall well-being of women affected by these conditions.

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