



ACNE SCARS IN INDIAN PATIENTS: PREVALENCE AND IMPACT ON QUALITY OF LIFE

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ABSTRACT:

Background: More than 80% of adolescents and young adults suffer from acne, which is a widespread chronic inflammatory skin disorder and one of the top 10 most common diseases in the world. Since scars can last and are frequently experienced by most people with acne, scarring can be a significant worry for acne patients. The majority of published reports on the effects of acne scars on patients' wellbeing only employ instruments that are insufficiently sensitive and specific to evaluate the effects of scars. Additionally, despite the mismatch between a patient's opinion of scar severity and a dermatologist's evaluation, these investigations record scars in accordance with clinical judgment.

Material and methods: This study included a total of 120 acne vulgaris participants. Dermatologists analyzed acne and scarring. Following information was gathered from medical records: Using the Dermatology Life Quality Index (DLQI), analysis of the age at acne onset, age at the time of initial care, sex, and the effect of acne scarring on QOL was done. Symptoms, feelings, leisure, work/school, interpersonal interactions, and treatment are among the ten topics covered by the DLQI.

Result: For all the patients, the age at the onset of acne, age at the time of initial treatment were 16.9 ± 1.89 , and 18.7 ± 1.43 years, respectively. For acne severity, 26.67% of the patients had mild acne, 46.67% moderate acne, 22.5% severe acne and 4.17% very severe acne.

Conclusion: This study's result emphasizes the major influence scars have on quality of life, which increases with scar severity, as well as their high occurrence in acne patients. Therefore, when choosing a course of treatment, the influence of acne scars on quality of life must be taken into account.

Keywords: Acne scar, Prevalence, Skin condition, Mini scars and Atrophic scars

INTRODUCTION:

More than 80% of adolescents and young adults suffer from acne, which is a widespread chronic inflammatory skin disorder and one of the top 10 most common diseases in the world. Since scars can last and are frequently experienced by most people with acne, scarring can be a significant worry for acne patients.¹

Despite the lack of evidence, it is believed that acne scarring is linked to negative psychosocial impairment brought on by humiliation, self-consciousness, and low self-esteem. People who have acne scars frequently experience signs of dissatisfaction, despair, anxiety, and stress, as well as worry that their appearance may affect

their scholastic success, interpersonal connections, and work prospects. There have been a few attempts to investigate the distinct psychological impact of acne scars, a condition unrelated to acne.² The majority of published reports on the effects of acne scars on patients' wellbeing only employ instruments that are insufficiently sensitive and specific to evaluate the effects of scars. Additionally, despite the mismatch between a patient's opinion of scar severity and a dermatologist's evaluation, these investigations record scars in accordance with clinical judgment. Patients' experiences, perspectives, needs, and priorities are captured and meaningfully incorporated into clinical

practice and drug development through the use of patient-reported outcomes (PROs), such as symptom severity and impact on health-related quality of life (HRQOL).³

MATERIAL AND METHODS

A total of 120 patients with acne vulgaris were enrolled in this study. Acne and scarring were assessed by dermatologists.

Data collected from medical records included: Age at the onset of acne, age at the time of initial management, Sex, the impact of acne scarring on QOL was performed by using the Dermatology Life Quality Index (DLQI). The DLQI has 10 items that address: symptoms, feelings, leisure, work/school, personal relationships and treatment.

Severity of acne was established by the dermatologist by using the Global Acne Severity (GEA) score. Acne scars were classified into three types: Mini-scars, atrophic scars and

hypertrophic scars. Their numbers were counted.

Mini-scars were defined as atrophic scars of ≥ 0.5 and 2 mm in diameter, atrophic scars: More than 2 mm in diameter.

Statistics

All data analyses and statistical processes were performed using JAMOVI version 2.3.16. Baseline respondent characteristics were determined. Descriptive statistics were performed, and $p < 0.05$ was considered to indicate a statistically significant difference. Student's t-test was used to test the difference between current age, age at onset, age at initial treatment in patients with and without scars. Chi-squared test was used to test the association between Acne severity and the presence of acne scars.

RESULTS:

TABLE 1:

| Characteristic | N=120 |
|--|-----------------|
| Current age in Years, mean\pmSD | 26.2 \pm 6.45 |
| Gender, n (%) | |
| Male | 72 (60) |
| Female | 48 (40) |
| Age at onset in years, mean \pmSD | 16.9 \pm 1.89 |
| Age at initial treatment in years, mean\pmSD | 18.7 \pm 1.43 |
| Acne Severity, n (%) | |
| Mild | 32 (26.67) |
| Moderate | 56 (46.67) |
| Severe | 27 (22.5) |
| Very severe | 05 (4.17) |
| Acne Scar Prevalence, n (%) | 89 (74.17) |
| Acne Scars classification, n (%) | |
| Mini-scars | 20 (22.47) |
| Mini-Scars + Atrophic scars | 39 (43.82) |
| Atrophic scars | 17 (19.10) |
| Hypertrophic scars | 13 (14.61) |

A total of 120 patients with acne were included. 60% (72 patients) were men and 40% (48 patients) were women. Their mean age was 26.2 \pm 6.45 years. The mean ages of the female and male patients were 27.6 \pm 5.45 and 22 \pm 3.91 years.

For all the patients, the age at the onset of acne, age at the time of initial treatment were 16.9 \pm 1.89, and 18.7 \pm 1.43 years, respectively.

For acne severity, 26.67% of the patients had mild acne, 46.67 % moderate acne, 22.5% severe acne and 4.17% very severe acne.

Of the 120 acne patients, 89 patients (74.17%) had acne scars. 22.47% of patients had only

mini-scars; 43.82% had both mini-scars and atrophic scars; 19.10% of patients had atrophic scars and 14.61% had hypertrophic scars.

DISCUSSION:

Acne is a common chronic skin condition; most often had a significant impact on quality of life. The most frequent complication of acne is scars which is often hard to treat.⁴

Based on their morphology, acne scars can be classified in 3 types: ice pick, rolling, and box-car.⁵ We used a simplified Japanese classification of acne scars to evaluate the prevalence of acne scars and their impact on quality of life.⁶

In our study, the prevalence of acne scars was 74.17% which is similar to previous studies 90%.⁷ The prevalence of types of acne scars was 22.47%, 43.82%, 19.10%, 14.61% for miniscars, miniscars and atrophic scars, atrophic scars and hypertrophic scars.

Moreover, more than a 46% of our patients experienced moderate acne, 22.5% had severe acne and 4.17% had very severe acne.

Martin et al.⁸ observed that the QoL in facial acne correlated with the patient reported severity (25%) and the QoL scores worsen with increasing severity. There was association between the acne severity of face and trunk than with face alone. Hanisah et al.⁹ reported facial acne in 67.5% of individuals, being more common in males (71.1%) and QoL was affected by the severity, which was also reported by Hassan et al.¹⁰

Eleni et al.¹¹ showed that moderate/severe acne had more impact on QoL (CDLQI) than mild acne and there were no gender differences. Studies done in Iraq, Turkey, and France showed worsening QoL with increasing grade of acne. No association between acne severity and QoL was reported in some studies.^{12,13}

Shahin et al.¹⁴ evaluated CADI scores in patients with acne which showed a mean CADI score of 7.57. Majority (78%) of patients had moderately severe acne and the grade correlated with the CADI scoring as observed by Salek et al.¹² and Clark et al.¹⁵ The score was greater in those with facial acne (7.9) and married individuals (8.8) and there were no gender differences.

An interesting observation was that there was no difference in the age of onset between patients without and with scars, but the age at the time of initial treatment was significantly higher in patients with scars than in patient without scars. Which highlights the importance of early management of acne to prevent acne scars.

In line with the few reports, the risk of acne scars increased with the severity of acne. All our patients with severe and very severe acne experienced acne scars. This point strongly indicates the importance of early adequate treatment of acne symptoms to prevent acne scars.

CONCLUSION

This study's result emphasizes the major influence scars have on quality of life, which increases with scar severity, as well as their high occurrence in acne patients. Therefore, when choosing a course of treatment, the influence of acne scars on quality of life must be taken into account.

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