

Acne Scarring and its incidence in Saudi Arabia (A clinical evaluation study)

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Abstract:

Two hundred acne patients (109 females, 91 males) attending the Outpatient Clinics were included in this study. The scarring was quantified according to a lesion count and allocated a score. Acne scarring was correlated to the gender of the patient, the site of the acne, and duration of acne before adequate therapy had been given. Results indicate that facial scarring affects both genders equally and occurs in 92% cases. Acne scarring on the trunk was significantly greater in males ($P < 0.05$). The duration of acne before sufficient treatment is an important factor in determining resultant scarring. This suggests the importance of early adequate therapy for acne in order to reduce the acne scarring.

Introduction and Aim of work:

Scarring is a known consequence of acne vulgaris. In spite of this, the incidence of scarring in acne remains largely undetermined. The aim of this study was to examine the extent, type and incidence of scarring produced by acne. It correlates the degree of scarring to the duration of acne before the start of adequate therapy. No similar studies, to our knowledge, have been reported from Saudi Arabia.

Patients and Methods:

This is a prospective study carried out on a sample of two hundred acne patients (109 females and 91 males) were evaluated at the Dermatology Outpatient Clinics at King Fahad Hofuf Hospital in the Kingdom of Saudi Arabia. All of the patients included in this study had their acne affecting the face and trunk. A comprehensive history was taken, including demographic features and the duration of the disease in each patient. The clinical evaluation of the patients was done by same examiner

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and under the same illumination condition.

Scarring was quantified using a lesion count based scoring system adapted from Layton et al⁽¹⁾. This involved counting the numbers of each scar type (ice-pick, macular atrophic and follicular elastolysis and allocating a score of 1-6 according to the number of scars present, as in Table 1. Keloid and hypertrophic scars were quantified separately and allocated a score of 2-6 according to their number, as in Table 2 because of their more disfiguring appearance.

Scars were described according to their clinical picture. Ice-pick scars may be superficial or deep scars with an irregular border, jagged edges, sharp margins and steep-sided pits^(2,3). Macular atrophic scars were described as soft scars with wrinkled base⁽⁴⁾. Follicular elastolysis clinically described small, follicular, macular, atrophic lesions, which may or may not be palpable above the skin surface⁽⁵⁾. Keloidal scarring was defined as a benign, well-demarcated area of fibrous tissue overgrowth that extends beyond the original defect⁽⁶⁾. Hypertrophic scars were defined as less raised scars confined to the initial defect^(6,7). Acne scarring was correlated to the sex of the patient, the site of the acne, and the duration between onset of acne and start of adequate therapeutic measures. These data were analyzed using statistical package for social sciences (SPSS) version 10. A p-value of less than 0.05 was considered as the statistical level of significance⁽⁸⁾.

Results:

Figure 1 shows the overall incidence of acne scarring. Scars were evident in 92% of acne patients. The incidence of acne scarring on the face was significantly greater than that on the trunk ($P < 0.04$). Ice-pick scars were the most commonly recognized acne scars and seen most commonly on the face as shown in Table 3. Macular atrophic scarring was also significantly higher on the face than on the trunk ($P < 0.02$). Follicular elastolysis appears only on the trunk of both sexes. Hypertrophic scarring was most commonly seen on the male trunk (21%), and the incidence of hypertrophic scarring was significantly greater in males than females ($P < 0.03$). Keloidal scarring was seen mostly on the male trunk and significantly more in males ($P < 0.01$).

Figure 2 represents the correlation between the duration of acne before the start of adequate therapy and the resultant acne scarring. These data show that untreated acne of up to 2 years duration correlates significantly with acne scarring.