

CLINICAL PATTERN OF ACNE VULGARIS AND ITS ASSOCIATED CONDITIONS IN THE EASTERN PROVINCE OF KINGDOM OF SAUDI ARABIA: A HOSPITAL-BASED CLINICAL STUDY

Ali M. Al-Ameer, MD, Omar M. Al-Akloby MD

Department of Dermatology, King Fahd Hospital of the University, Al-Khobar, Saudi Arabia

هدف الدراسة: أجريت الدراسة للتعرف على أشكال مرض حب الشباب السريرية بين المراجعين لأحدى مستشفيات المنطقة الشرقية.
طريقة الدراسة: أجريت الدراسة من خلال الفحص الإكلينيكي على منتين من مرضى حب الشباب الذين راجعوا عيادات الأمراض الجلدية بمستشفى الملك فهد الجامعي بالخبر بالمملكة العربية السعودية وذلك في الفترة من أكتوبر 1999م إلى مايو 2000 م.
نتائج الدراسة: كان أكثر الأنواع شيوعاً هو النوع الالتهابي وذلك بنسبة 76% في الذكور و 79% في الإناث. وقد لوحظ أن الدسم الجلدي هو أكثر الحالات المصاحبة لمرض حب الشباب (11%) يليها قشرة الرأس (4%). بالنسبة للإناث فقد كانت زيادة حب الشباب المصاحب للدورة الشهرية بنسبة (9.8%) يليها اضطراب الدورة الشهرية بنسبة (4.1%) يليها الشعرانية (2.5%).

الكلمات المرجعية: حب الشباب, الدسم الجلدي, قشرة الرأس, الدورة الشهرية, الشعرانية

Objective: This study aims to review the clinical pattern of acne vulgaris cases referred to one hospital in the Eastern Province.

Methods: Two hundred cases diagnosed in the Dermatology Department at King Fahad Hospital of the University (KFHU), Al-Khobar, Saudi Arabia were studied

Results: Inflammatory acne was the predominant type observed in both males and females (76% and, 79%, respectively). Seborrhea (greasy skin) was the most frequently associated condition 22 (11%) followed by dandruff 8 (4%). The difference between males and females was not statistically significant (p -value = 0.46, 0.93, respectively). In female patients, premenstrual flare was observed in 12 (9.8%), irregular period 5 (4.1%), and hirsutism 3 (2.5%).

Key Words: Acne vulgaris, seborrhea, dandruff, premenstrual flare, irregular period, hirsutism.

The aim of the present study was to review the clinical pattern of acne vulgaris and its associated conditions in patients diagnosed in a university hospital in the Eastern Province of Saudi Arabia. However, no similar studies, to our knowledge, have been reported from Saudi Arabia.

PATIENTS AND METHODS

A total of 200 cases of acne vulgaris (122 females and 78 males with a mean age of 14.8 and 16.3 years, respectively) diagnosed during the period of 1st October, 1999 to the end of May, 2000 were studied. King Fahd Hospital of the University is a referral

Correspondence to:

tertiary care hospital for the entire Eastern Province with an estimated population of three million.

Charts of patients with acne vulgaris seen during the study period were reviewed. The cases were divided into two major groups; inflammatory and non-inflammatory acne. The inflammatory lesions included papules, pustules, nodules and even pseudocysts, whereas the non-inflammatory lesions were comedones, either open (blackheads) or closed (whiteheads).^{1,2}

Data were entered into a compatible personal computer using statistical package for social sciences (SPSS) version 10. Statistical analysis was performed with Chi-square test for qualitative variables, and t-test for quantitative variables. A p-value of less than 0.05 was considered as the statistical level of significance.³

RESULTS

Inflammatory acne was the predominant type observed in both males 59 (76%) and females 96 (79%) (Figure 1). The difference was statistically insignificant (p-value = 0.36).

Among all patients papulo-pustular lesions were the commonest type of inflammatory acne 74 (52%), followed by papular 46 (32%) and nodular 17 (12%). The least common were the isolated pustular lesions 13 (9%) (Figures 2). No significant difference between males and females was found (p-value = 0.96).

The face was involved in all cases 200 (100%). The face alone was involved in 151 (75.5%) whereas 49 (24.5%) of the cases had both facial and trunk involvement (Table 1). There was no statistical significant difference between the two genders (p-value = 0.17).

Seborrhea (greasy skin) was the most frequently associated condition, 22 (11%) followed by dandruff 8 (4%). The difference

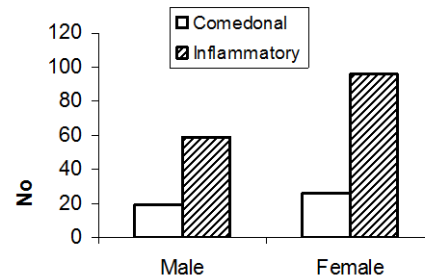


Figure 1: Distribution of types of acne by gender

Table 1: Sites of involvement in acne patients (N=200)

Distribution	No of patients (%)
Face only	151 (75.5)
Face and trunk	49 (24.5)
Total	200 (100)

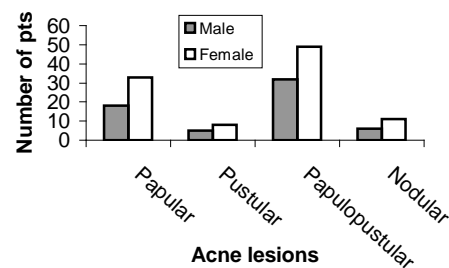


Figure 2: Distribution of morphological features by gender

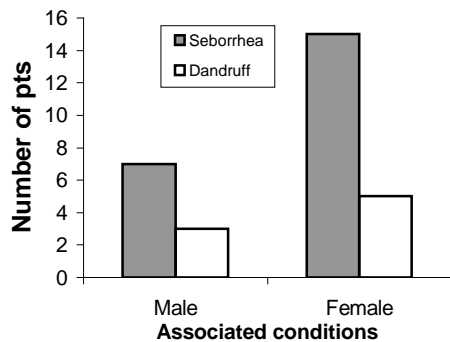


Figure 3: Distribution of associated conditions in acne patients by gender

between males and females was not statistically significant (p -value = 0.46 and 0.93 respectively) (Figure 3).

In female patients, premenstrual flare was observed in 12 (9.8%), irregular periods 5 (4.1%), and hirsutism 3 (2.5%).

DISCUSSION

Acne vulgaris is generally limited to skin areas rich in sebaceous glands.¹ Non-inflammatory lesions of acne include white (closed) and black (open) comedones.^{1,2} The inflammatory lesions vary from small papules to pustules to large, tender, fluctuant nodules. Some of the large nodules have previously been called cysts, and the term nodulocystic has been used to describe severe cases of inflammatory acne.²

In the present study, inflammatory acne was the predominant type. It was seen in slightly more than three quarters of acne patients. These findings are in line with those noted by Goulden et al⁴ in spite of the difference in the mean age of the two studies.

All acne patients in this study had facial lesions. This finding is nearly the same as that reported by Cunliffe and Williams.⁵ In slightly more than three quarters of the patients, the face alone was involved. Both facial and truncal lesions were seen in

approximately a quarter of the cases. These findings are in a close agreement with what was observed by Patricia and Chee-Leok.⁶

In this study, seborrhea (greasy skin) was the most common associated condition occurring in almost one tenth of all cases. Several studies have indicated that seborrhea is a frequent finding in acne.^{5,7} Furthermore, acne patients excrete more sebum than normal subjects, and the level of secretion correlates reasonably well with the severity of the disease.⁸

Dandruff was reported in 4% of the acne patients. However, like many dermatological symptoms, though not easy to assess clinically, it is probably more prevalent in patients with acne.⁹

Premenstrual flare was found in 9.8% of female acne patients which is less than that reported in western studies, which is almost 70%.^{5,10} This might be an underestimate, since for cultural reasons, Saudi female teenagers would rather not discuss private issues like menstruation. The other possible explanation of this difference is that the files used in the research may have insufficient information.

Acne vulgaris represents one of the most common chronic skin diseases and is the commonest dermatological disorder of adolescents.^{1,5} Since the prevalence of this condition is not known at the community level in Saudi Arabia, a cross-sectional, community-based, multi-center study is recommended.

REFERENCES

1. Brown SK, Shalita AR. Acne vulgaris. *Lancet* 1998; 351: 1871-6.
2. John SS, Diane MT. Diseases of the Sebaceous Glands. In: Fitzpatrick TB, Eisen AL, Wolff K, Freedberg IM, Austen KF. Editors. *Dermatology in General Medicine*. 5th ed. New York: McGraw Hill; 1999: 769-83.
3. Wayne WD. *Biostatistics: A foundation for analysis in the health sciences*. 3rd ed. John Wiley & Sons Inc; 1983.

4. Goulden V, Clark SM, Cunliffe WJ. Post-adolescent acne: a review of clinical features. *Br J Dermatol* 1997;136:66-70.
5. Cunliffe W J, Cotterill JA. The Acne: clinical features, pathogenesis and treatment. Ronald Marks, editors. London: Martin Dunitz Ltd;1989: 11-75.
6. Patricia PN, Chee-Leok G. Teatment outcome of acne vulgaris with oral isotretinoin in eighty-nine patients. *Int J Dermalol* 1999; 38: 213-6.
7. Beylot C. Seborrhea and its complications. *Rev Prat* 1993; 43(18):2320-7.
8. Cunliffe WJ, Simpson NB. Disorders of the Sebaceous Glands. In: Rook, Wilkinson, Ebling, editors. *Textbook of Dermatology*. 6th ed. Oxford: Blackwell Scientific Publications; 1998. 1940-71.
9. Munro AD. Acne vulgaris in a public school. *Trans St Johns Hosp Dermatol Soc* 1963; 49:144.
10. Cunliffe, Cotterill. *The Acnes: clinical features, pathogenesis and treatment*. London: Lavenham Press; 1975.