

The frequency of penile acne among Iraqi males with facial acne vulgaris

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Summary

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Background: Acne vulgaris is a common skin problem. It affects areas of high density of sebaceous glands like the face, chest and back. The penile skin is no exception, also can be affected with acne, however little was written on this subject.

Patients & Methods: This is a clinical epidemiological study conducted at the Department of Dermatology & Venereology- Baghdad Teaching Hospital, during the period between December 2007 and May 2008. Seventy six male patients with facial acne vulgaris were enrolled in the study. A full history includes age, age of onset of facial acne and any penile lesion observed by the patient Examination of the face was done for the severity of acne and grading it into mild, moderate, severe and very severe according to Allen and Smith method. The penis of each patient was examined for the presence of ectopic sebaceous glands and acne.

Results: A total number of 76 patients, their ages ranged between 13 - 30 years with mean \pm 19.033 \pm 4.609. They were classified into 4 groups according to the grades of severity of acne vulgaris, 23 (30.26%), 20 (26.31%), 18 (23.68%) and 15 (19.73%) corresponding to mild, moderate, severe and very severe respectively. The frequency of ectopic sebaceous glands in these 4 groups were 15(65.21%),14(70%), 12(66.66%) and 9(60%) respectively with a total 65.78 % from all patients with facial acne. The frequency of penile acne in these 4 groups were 4 (17.39%),3(15%),3(16.66%) and 2 (13.33%) with a total 15.87 % from all patients with facial acne. There was neither a statistical significant difference in the frequency of penile ectopic sebaceous glands nor of penile acne among the 4 grades of facial acne vulgaris. P value = 0.993 and 0.992 respectively. In all patients the ectopic sebaceous glands and lesions of penile acne were situated in the ventral surface of the penis. Most patients who were aware about penile lesions and afraid from having sexually transmitted disease were those having papules and pustules.

Conclusion: Penile ectopic sebaceous glands were a common skin condition and penile acne was not uncommon skin problem among Iraqi males.

Key words: Penile ectopic sebaceous glands, Fordyce's spots, Acne vulgaris

Introduction

Acne is a disease of the pilosebaceous units. Acne lesions are divided into inflammatory and non inflammatory lesions. Noninflammatory lesions consists of open and closed comedones. Inflammatory lesions are characterized by the presence of one or more of the following types: papules, pustules, nodules and pseudocysts. Acne appears near puberty and in most cases become less active as adolescence ends (1). The sites of predilection are the face, neck, upper trunk and upper arms (2). Ectopic sebaceous glands are common on the penile shaft especially on the ventral surface appear as multiple, symmetrical, barely elevated, discrete, yellow papules similar to Fordyce spots on the buccal mucosa. These penile sebaceous glands may develop inflamed acne lesion (3, 4). So this study was aimed to shed a light to this type of acne involving the penis and its frequency among patients with facial acne vulgaris

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Patients and methods

This was a clinico-epidemiological study conducted at the outpatient Department of Dermatology and Venereology Baghdad Teaching Hospital, during the period between December 2008 and May 2008. Seventy six male patients with facial acne vulgaris were enrolled in the study. A full history includes age, age of onset of facial acne and any penile lesion observed by the patient. Examination of the face was done for the severity of acne and grading it into mild, moderate, severe and very severe according to Allen and Smith method (The overall severity acne grading system). Table 1: Grading scale for overall severity of acne vulgaris (5)

Grade	Description
Mild	About one fourth or less of facial area is involved, with comedones and papules (a few pustules may be present).
Moderate	More than one fourth to half of facial area is involved, with comedones and papules (a few pustules are usually present).
Severe	More than half to three fourths of facial area is involved, with comedones and papules (a numerous pustules are usually present).

Very severe	Nearly all of facial area is involved, with lesions. Large prominent pustules are usually visible. Lesions are usually highly inflammatory. Other types of acne lesions such as sinus and cysts may be present
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For each patient, examination of the penis was done for the presence of acne lesions (comedones, papules, pustules and / or scar) and to assess their frequency among patients with the 4 grades of severity of facial acne mentioned above.

Statistical analysis: Descriptive statistics: Mean, standard deviation and percentage, Analytical statistics: chi square. P value less than 0.05 considered significant.

Results

A total number of 76 patients included, their ages ranged from 13 to 30 years with mean $\pm 19.033 \pm 4.609$. They were classified into 4 groups according to the grades of severity of acne vulgaris. The frequency of ectopic sebaceous glands and penile acne in these 4 groups were shown in Table –2

Table –2. The frequency of ectopic sebaceous glands and penile acne among patients with different grades of facial acne vulgaris.

Facial acne grade	No.	No. of patients with ectopic sebaceous glands	No. of patients with penile acne
Mild	23(30.26%)	15 (65.21%)	4(17.39%)
Moderate	20 (26.31%)	14 (70%)	3 (15%)
Severe	18 (23.68%)	12(66.66%)	3 (16.66%)
Very severe	15 (19.73%)	9(60%)	2 (13.33%)
Total	76 (100%)	50(65.78)	12 (15.87%)

There was no statistical significant difference in the frequency of penile ectopic sebaceous glands among the 4 grades of acne vulgaris. P value = 0.993. Also there was no statistical significant difference in the frequency of penile acne among the 4 grades of acne vulgaris. P value = 0.992

In all patients the ectopic sebaceous glands and lesions of penile acne were situated in the ventral surface of the penis. The lesions of penile acne reported were comedones (Fig. -1), papules (Fig.2), pustules (Fig. -3) and pitted scars (Fig.-4)

Patients having penile ectopic sebaceous glands with or without penile acne, may or may not aware about their lesions. Table –3.

Table –3: The frequency of the types of lesions of penile acne and their symptoms.

Type of penile lesion	Unaware about the lesions		Aware but don't worry		Aware and afraid from sexually transmitted disease		Total number	Total%
	No.	% out of 50	No.	% out of 50	No.	% out of 50		
Ectopic sebaceous glands	17	34	23	46	10	20	50	100
comedones	3	6	2	4	0	0	5	10
papules	0	0	2	4	4	8	6	12
pustules	0	0	1	2	3	6	4	8
Pitted scar	2	4	0	0	0	0	2	4



Fig.- 1: A twenty three years old with penile comed



Fig.- 2: A thirty years old male with penile papule



Fig.- 3: A twenty years old male with penile pustules (mimics molluscum conagiosum)



Fig.- 4: A twenty eight years old male with penile pitted scars.

Discussion

Acne vulgaris affects 85-100% of people at some time during their lives (6) However little was written about involvement of the penis with acne. Ectopic sebaceous glands have been described in the male and female genitalia and other areas (7) . In this study the frequency of penile ectopic sebaceous glands were found in 65% of patients with facial acne. However other studies showed a variation in the frequency of ectopic sebaceous glands (Fordyce's spots). One study showed that these spots were seen in 25% of people (8). While other study showed that these spots were extremely

common, probably 80% of population has them (9). So in conclusion the frequency of ectopic sebaceous glands is variable.

In this study ectopic sebaceous glands were found on the ventral surface of the penis. This was similar to other studies (3). In the present study less than 25% of patients having ectopic sebaceous glands (the precursor of penile acne lesions), developed penile acne lesions. This might be due to the fact that these glands only sometimes may develop inflamed acne lesions (3, 4)

So the rest of patients having these glands might not develop acne lesions at all.

About 20% of persons with ectopic sebaceous glands aware and afraid from having a sexually transmitted disease. This was similar to what had been mentioned in the literatures that men sometimes consult with a dermatologist because they are worried they may have a sexually transmitted disease (especially genital wart) or some form of cancer, but this is not the case⁽¹⁰⁾.

Penile acne papules and pustules were the most noticeable types of lesions by the patients, probably due to their size and prominent appearance. Some of ectopic sebaceous glands or pustules in this study mimic molluscum contagiosum (Fig 4). Similar observation was mentioned in other study (11)

No statistical significant difference in the frequency of penile ectopic sebaceous glands and penile acne among the 4 grades of facial acne vulgaris.

To the best of our knowledge, this was the first studies that assess the frequency of penile ectopic sebaceous glands and penile acne among males with facial acne vulgaris.

Conclusions

Penile ectopic sebaceous glands were a common skin condition and penile acne was not uncommon skin problem among Iraqi males with facial acne vulgaris.

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