

Psychosocial Impact Of Acne Vulgaris At Tertiary Care Centre In Rajasthan, Observational Study

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ABSTRACT

Introduction: Skin is the largest organ of the body and it plays an important role in our appearance, with a wide function in social and sexual communication. The prevalence of acne varies from 28.9 to 91.3% among adolescents. Though highest prevalence is seen in adolescent age group, the burden of acne remains high in adults.

Aim and Objectives: To study the psychosocial impact of acne vulgaris at tertiary care centre.

Material and Methods: This was an observational study conducted during 1st December 2022 to 30 May 2024 at Dermatology out patient department at Pacific Institute of Medical Sciences, Umarda, Udaipur Rajasthan. A total of 100 consecutive, patients of Acne vulgaris will be enrolled, after sample size calculation based on prevalence of disease in our region.

Result: In this study we found that mean age for female patients was 22.2 years and for male it was 23.63 years. There were 70 females and 30 male in this study. We found that 28.5% female and 23.3% male patients were of severe acne score. The mean duration of acne for female patients was 14.7 years and for male patients it was 13.4 years. We found that majority 35.7% female patients and 46.6% male patients were worried about acne followed by 35.7% female and 36.6% male patient with fear.

Conclusion: Significant impact of acne and its sequelae was noted on emotions, daily activities, social activities, study/work, and interpersonal relationships. Assurance and counseling along with early treatment of acne vulgaris is important to reduce disease-related psychosocial sequelae and increase the efficacy of treatment.

Keywords: Acne Vulgaris, Psychosocial.

Introduction

The skin is the most visible organ of the body and determines, to a large extent, our appearance, with a wide function in social and sexual communication.¹ Acne vulgaris, which is one of the most prevalent skin disorders, is frequently seen in adolescents. Acne vulgaris is a chronic inflammatory disease of the pilosebaceous unit of the skin which presents with seborrhea, comedones, erythematous papules and pustules, nodules, pseudocyst, and scarring.² The prevalence of acne varies from 28.9 to 91.3% among adolescents.³ Though highest prevalence is seen in adolescent age group, the burden of acne remains high in adults.⁴ A 2001 study showed that though acne peaked during teenage years more than 25% women suffered acne after 21 years of age, with a peak of 45% in women with 21-30 years of age.⁵

Acne vulgaris can be mild, moderate, or severe.⁶ It can also be noninflammatory (open or closed comedones) and inflammatory (papules, pustules, nodules, and cyst).⁶ Clinical presentation includes non-inflammatory and/or inflammatory lesions extending over the face and/or trunk. Scarring and post inflammatory pigment changes contributes to significant physical and psychosocial impact. Psychosocial is defined as the interrelation of social factors with an individual's thoughts and behavior.⁷ Because many skin conditions are commonly associated with social stigmatization,

patients can suffer from lowered self-esteem, anxiety, or depression. The assessment of the psychosocial impact of skin disease on a patient can help direct the dermatologists' treatment goals. Although acne is not a life-threatening disease, it could be distressing and cause adverse psychosocial consequences such as poor self-esteem, and social phobia in the patients.⁸

It has been reported that acne patients have a higher unemployment rate than normal individuals,⁹ participate poorly in sporting activities, and have poor academic performance due to lack of self-confidence and poor feeling of self-worth which may, rarely, lead to development of suicidal thoughts.¹⁰ The impact of acne on psychological parameters are not fully understood. Although acne was earlier considered to be merely a cosmetic affliction, the psychosocial effects of the disease have now been scientifically proven. Studies have shown these effects to improve when acne is treated.¹¹ Thus, it is imperative that quality of life (QoL) issues of acne are taken into consideration for a wholesome management of the patients. They aim to observe psychosocial impact of acne vulgaris.

Material and method

This was an observational study from April 2021 to September 2022 at department in Pacific Institute of Medical Sciences, Umarda, Udaipur Rajasthan., India. The study included Sample size of 100 patients of Acne vulgaris. Detailed history of patients, clinical examination and routine investigations were performed. Research perform form maintained by using simple acne grading system , acne scarring grading system and dermatology life quality index score.

Results

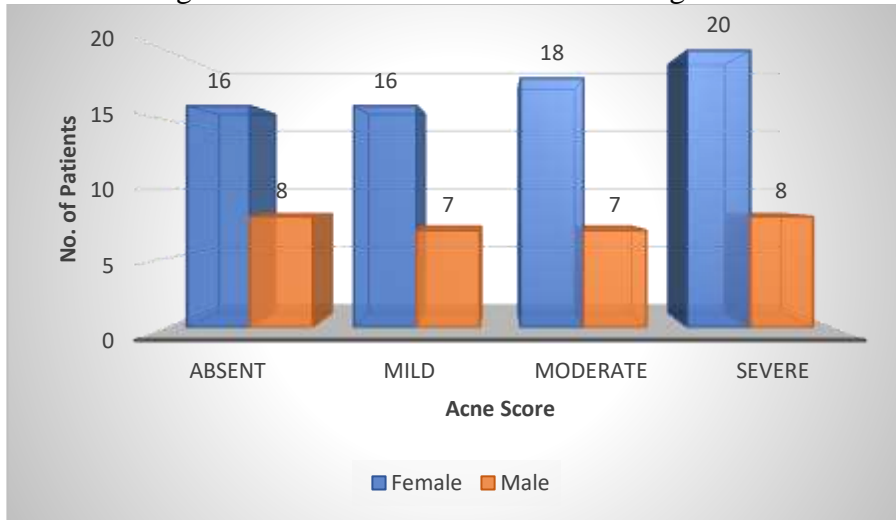
We found that mean age for female group was 22.2 years and 23.63 years for male group. Here we found that 45.7% female and 46.6% male were student followed by 35.7% female worker and 36.6% male work in private sector.

Figure 1: Correlation of grade of acne with gender

Grade of Acne	Female		Male		Total	
	No. of Patients	Percentage	No. of Patients	Percentage	No. of Patients	Percentage
One	9	12.86	3	10.00	12	12
Two	46	65.71	21	70.00	67	67
Three	14	20.00	5	16.67	19	19
Four	1	1.43	1	3.33	2	2
Total	70	100.00	30	100.00	100	100

Here we found that 65.7% female and 70% male patients had grade of acne 2 followed by 20% female with grade of acne 3. We found that 85.7% female and 83.3% male were single. In above table we calculated BMI. We found that mean BMI for female group was 25.53 kg/m² and for male group it was 26.3 kg/m². Majority 52.8% female and 56.6% male had skin type of dry and oily both.

Figure 2: Correlation of acne score with gender.



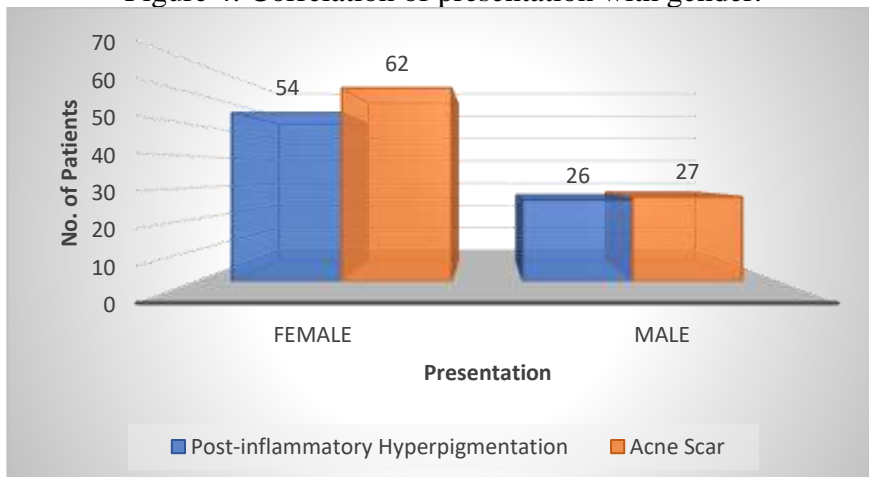
Here we found that 28.5% female and 26.6% male patients had severe acne score followed by 25.7% moderate acne score in female. We found that all the female and male patients had acne on face followed by 31.4% female and 23.3% male had acne on back also. Majority 41.4% female patients and 40% male patients use skin cleanser 3-4 time a week followed by 34.2% female and 36.6% male who use skin cleanser 1-2 time a week.

Figure 3: Correlation of duration of acne with gender

Duration of Acne (in years)	Female		Male		Total	
	No. of Patients	Percentage	No. of Patients	Percentage	No. of Patients	Percentage
1-10	4	5.71	5	16.67	9	9
11-20	47	67.14	18	60.00	65	65
21-30	7	10.00	4	13.33	11	11
>30	12	17.14	3	10.00	15	15
Total	70	100.00	30	100.00	100	100
Mean±SD	14.7±12.29		13.4±11.62		14.1±12.14	

In above table we found that mean duration of acne for female patients was 14.7 years and for male patients it was 13.4 years. we found that majority 57.1% female and 43.3% male patients had family history of acne.

Figure 4: Correlation of presentation with gender.



Here we found that majority 77.14% female and 86.6% male patients had post-inflammatory hyperpigmentation followed by 88.5% female and 90% male had acne scar. We found that mean duration of sleep in female was 7.01 hours and for male patients it was 6.96 hours.

Figure 5: Correlation of psychological disorder with gender

Psychological Disorder	Female		Male		Total	
	No. of Patients	Percentage	No. of Patients	Percentage	No. of Patients	Percentage
Anger	18	25.7	4	13.33	22	19
Anxiety	3	4.2	0	0.00	3	9
Depression	1	1.42	1	3.33	2	17
Fear	25	35.7	11	36.67	36	34
Worry	23	32.85	14	46.67	37	21
Total	70	100	30	100.00	100	100

In above table we found that majority 32.8% female and 46.6% male patients were worried about acne followed by 35.7% female and 36.6% male who had social acceptance fear. 14.2% female patients and 6.6% male patients had chronic disease. Mean DLQI score for female patients was 6.12 and for male it was 5.86.

DISCUSSION

Acne vulgaris is a chronic disease affecting the pilosebaceous glands. Though a disease predominating in adolescence data indicates that the age distribution of acne is widening and this is happening in both sexes but more prominently in woman over the age of forty years.

GRADE OF ACNE

We found that 65.7% female and 70% male patients had grade of acne 2 followed by 20% female with grade of acne 3. In this study 28.5% female and 26.6% male patients had severe acne score followed by 25.7% moderate acne score in female. Raghavan J S et al¹² found that About 44% had grade 3, 30% had grade 2 and 18% had grade 4 acne and 8% had grade 1 acne. grade 3 and 4 acne predominated in females (46%) than males (16%). A similar study by Kilkenny M et al¹³ found opposite result than our study and it points to the possibility of a greater inflammatory nature of acne vulgaris in this part of the country.^{13,14,15} Also, severe grades of acne were more in females, 46% compared to 16% in males.

SITE OF ACNE

We found that all the female and male patients had acne on face followed by 31.4% female and 23.3% male had acne on back. Raghavan J S et al¹² found that the face was affected in all patients with cheeks 91%, forehead 72%, mandible 36% and chin 28%. Truncal involvement was less with chest 10%, back 13%, shoulder 8% and upper arm 3%. Alqahtani et al¹⁶ found that (99.3%) presented with facial acne while 43% has acne manifestation on the back and 35% on the chest.

DURATION OF ACNE

We found that mean duration of acne for female patients was 14.7 years and for male patients it was 13.4 years. Alqahtani et al¹⁶ found that (56.3%) had two years or less duration while 43.7% had more than two years of duration.

We found that majority 77.14% female and 86.6% male patients had post-inflammatory hyperpigmentation followed by 88.5% female and 90% male had acne scar.

PSYCHOLOGICAL DISORDER

We found that majority 32.8% female and 46.6% male patients were worried about acne followed by 35.7% female and 36.6% male who had social acceptance fear. A similar study by Department Of Dermatology, Sai Tirupati University, Udaipur (Raj.) (2024)¹⁷ found that 68% patients reported acne affected their social activities. Negative influence on social/leisure activities showed statistically significant correlation ($P < 0.05$) to gender, site of lesions, and grade of acne. Patients responded that they especially avoided social gatherings during an episode of acute acne flare as they felt other people stared at their acne and this made them uncomfortable. This was more so in females.

Conclusion:

Significant impact of acne and its sequelae was noted on emotions, daily activities, social activities, study/work, and interpersonal relationships. Assurance and counseling along with early treatment of acne vulgaris is important to reduce disease-related psychosocial sequelae and increase the efficacy of treatment.

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