

Assessment of Psychiatric Illness in Severe Acne Patients: An Institutional Based Study

Mukesh Batra

Associate Professor, Department of Psychiatry, Index Medical College, Indore, Madhya Pradesh, India.

ABSTRACT

Background: Acne is an inflammatory disorder of pilosebaceous units and is prevalent in adolescence. The field of psycho-dermatology encompasses all conditions involving the mind and the skin. The present study was undertaken for assessing psychiatric illness in severe acne patients.

Materials & Methods: A total of 100 severe acne patients were enrolled in the present study. Complete demographic, clinical, past medical and detailed family history of all the patients was obtained. All the results were recorded in Microsoft excel sheet and were analyzed by SPSS software.

Results: Among these 100 patients, psychiatric illness was found to be present in 21 patients. Anxiety and depression were found to be 8 and 7 patients respectively. Somatization was found to be present in 3 patients. Obsession was found to be present in 2 patients. Males had significantly higher incidence of psychiatric illness among acne patients.

Conclusion: Occurrence of psychiatric illness is a significant

problem among acne patients; especially among upper class males.

Key words: Acne, Anxiety, Depression, Psychiatric Illness.

*Correspondence to:

Dr. Mukesh Batra,
Associate Professor,
Department of Psychiatry,
Index Medical College, Indore, MP, India.

Article History:

Received: 20-03-2019, **Revised:** 22-04-2019, **Accepted:** 26-05-2019

Access this article online

Website: www.ijmrp.com	Quick Response code 
DOI: 10.21276/ijmrp.2019.5.3.067	

INTRODUCTION

Acne is an inflammatory disorder of pilosebaceous units and is prevalent in adolescence. The characteristic lesions are open (black) and closed (white) comedones, inflammatory papules, pustules, nodules and cysts, which may lead to scarring and pigmentary changes.^{1,2} The pathogenesis of acne is multifactorial and includes abnormal follicular keratinization, increased production of sebum secondary to hyperandrogenism, proliferation of *Propionibacterium acnes* and inflammation.^{3,4}

The field of psychodermatology encompasses all conditions involving the mind and the skin. A close relationship has long been hypothesized to exist between these two structures owing to their common embryological origin from the ectoderm and the fact that they are affected by similar neuro-hormonal factors. A need for biopsychosocial approach to patients with skin disease which considers the psychological and issues in addition to the primary dermatological factors is being increasingly recognized to be important in contemporary practice.⁵⁻⁷

Hence; under the light of above mentioned data, the present study was undertaken for assessing psychiatric illness in severe acne patients.

MATERIALS & METHODS

The present study was planned in the Department of Psychiatry, Index Medical College, Indore, Madhya Pradesh (India) with the aim of assessment of psychiatric illness in severe acne patients. Ethical approval was obtained from institutional ethical committee and written consent was obtained from all the patients after explaining in detail the entire research protocol. A total of 100 severe acne patients were enrolled in the present study. Complete demographic, clinical, past medical and detailed family history of all the patients was obtained.

Exclusion criteria

- Diabetic or hypertensive patients,
- Patients with any known drug allergy,
- Patients with history of any other systemic illness or any other metabolic disorder,
- Patients with presence of any form of malignancy

All the results were recorded in Microsoft excel sheet and were analyzed by SPSS software. Chi-square test was used for assessment of level of significance.

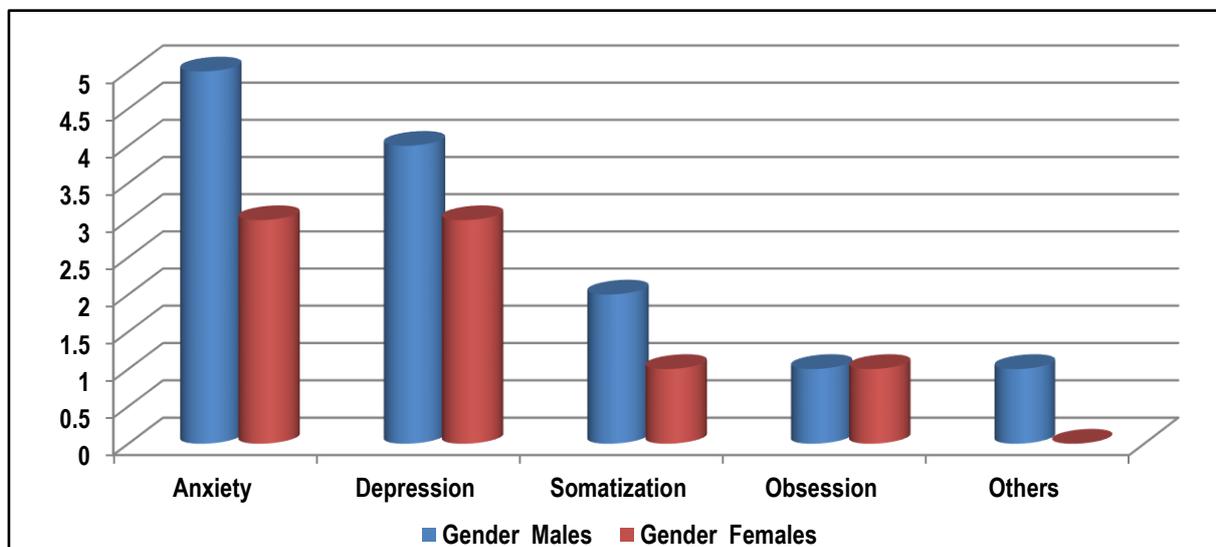
Table 1: Prevalence of psychiatric illness in severe acne patients

Psychiatric illness	Number of patients	Percentage of patients
Anxiety	8	38.1
Depression	7	33.3
Somatization	3	14.3
Obsession	2	9.6
Others	1	4.7
Total	21	100

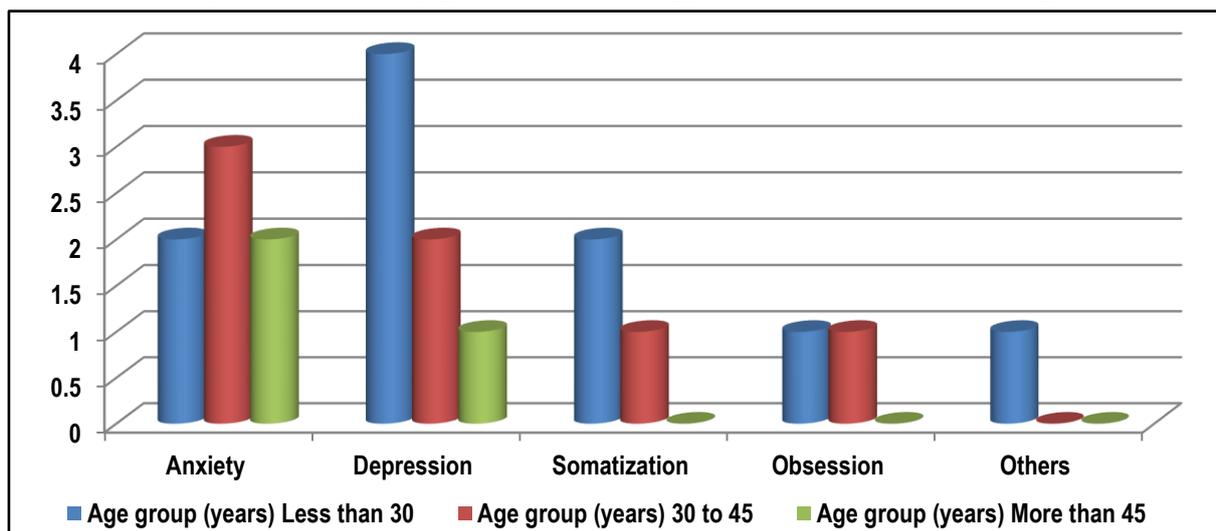
Table 2: Prevalence of psychiatric illness among patients divided on the basis of socio-economic class

Psychiatric illness	Socio-economic classes			p- value
	Upper class	Middle class	Lower class	
Anxiety	4	3	1	0.00 (Significant)
Depression	3	2	2	
Somatization	2	1	0	
Obsession	2	0	0	
Others	1	0	0	

Graph 1: Gender-wise distribution of acne patients with psychiatric illness



Graph 2: Prevalence of psychiatric illness among patients divided on the basis of age



RESULTS

In the present study, a total of 100 severe acne patients were enrolled. Among these 100 patients, psychiatric illness was found to be present in 21 patients. Anxiety and depression were found to be 8 and 7 patients respectively. Somatization was found to be present in 3 patients. Obsession was found to be present in 2 patients. Males had significantly higher incidence of psychiatric illness among acne patients. In the present study, psychiatric illness was found in 12 patients of the upper class, 6 patients of the middle class and 3 patients of the lower class. Significant results were obtained while assessing the prevalence of psychiatric illness among patients divided on the basis of socio-economic class.

DISCUSSION

Four key pathogenic processes lead to the formation of acne lesions: alteration of follicular keratinization that leads to comedones; increased and altered sebum production under androgen control; follicular colonization by *Propionibacterium* acnes; and complex inflammatory mechanisms that involve both innate and acquired immunity. Psychological disorders such as depression, anxiety, and body dysmorphic disorder are common in patients with acne and the reported prevalence of suicidal ideation and suicide completion in acne patients also is remarkable. Higher overall psychiatric morbidity in those with severe acne compared to normal population has been revealed. However, the emotional impact of acne can be difficultly predictable because of the presence of many underlying factors such as patients' age and gender, psychosocial developmental period, clinical severity of the disease, family and peer support systems, personality coping styles, and other underlying psychopathology. Thus, the impact of acne appearance on psychological status of individuals might be varied in different populations.⁸⁻¹⁰ Hence; the present study was undertaken for assessing psychiatric illness in severe acne patients.

In the present study, a total of 100 severe acne patients were enrolled. Among these 100 patients, psychiatric illness was found to be present in 21 patients. Anxiety and depression were found to be 8 and 7 patients respectively. Somatization was found to be present in 3 patients. Obsession was found to be present in 2 patients. Males had significantly higher incidence of psychiatric illness among acne patients. The current incidence of psychiatric disorders among dermatological patients is estimated at about 30-40%.

Gupta and Gupta in 1998 found that acne vulgaris is associated with psychosomatic co-morbidity in 30% of patients. In a survey of 294 alopecia areata patients, the prevalence of major depression was 8.8%. Another survey of 31 patients with alopecia areata reported a 74% lifetime prevalence of one or more psychiatric disorders with 39% prevalence of major depression.¹⁰⁻¹³

In the present study, psychiatric illness was found in 12 patients of the upper class, 6 patients of the middle class and 3 patients of the lower class. Significant results were obtained while assessing the prevalence of psychiatric illness among patients divided on the basis of socio-economic class. Bondade S et al assessed stressful life events and psychiatric comorbidity in acne patients. Consecutive one hundred patients who were diagnosed with acne vulgaris in the age group of 12 to 45 years were included. Age and sex matched controls were taken. A semistructured proforma was

used to collect sociodemographic details. Stressful life events were assessed using presumptive stressful life event scale. Anxiety was evaluated using Hamilton Anxiety Rating scale and Depression by Hamilton Depression Rating Scale. There was no difference in total stressful life events in past one year between patients and controls. The undesirable life event was present in 65 patients and 50 controls, this difference was statistically significant. Getting married or appearing for exams were the most common stressful life event in patients. Forty patients had comorbid psychiatric illness whereas in controls comorbidity was in 24 and this difference was statistically significant. The undesirable stressful life events and psychiatric comorbidity were more in acne patients than in controls.¹⁴ Khan MZ et al determined the Mental Health problem in Patients suffering from acne and to determine significant difference of mental health problems in acne patients in comparison to seborrheic dermatitis patients as a control group. 50 subjects with acne and 50 with seborrheic skin problems (13-25 yrs age) were included in this study through Psychiatry OPD. The data shows that out of 50 acne patients 19 (38%) were suffering from Depression, with a female predominance. The control group (seborrheic) presented lower prevalence of Depression i.e. 57% in females. Total Depressed Patients were 19, while total with suicidal Thoughts were 4 (21%). The importance of this study is to highlight depression among such patients.¹⁵

CONCLUSION

From the above results, it can be concluded that occurrence of psychiatric illness is a significant problem among acne patients; especially among upper class males. However; further studies are recommended.

REFERENCES

1. Magin P, Adams J, Heading G, et al. Psychological sequelae of acne vulgaris: results of a qualitative study. *Can Fam Physician* 2006;52:978-9.
2. Haider A, Shaw JC. Treatment of acne vulgaris. *JAMA* 2004;292:726-35.
3. Strauss JS, Krowchuk DP, Leyden JJ, et al. Guidelines of care for acne vulgaris management. *J Am Acad Dermatol* 2007;56:651-63.
4. James WD. Acne. *N Engl J Med* 2005;352:1463-72.
5. American Association of Clinical Endocrinologists Polycystic Ovary Syndrome Writing Committee American Association of Clinical Endocrinologists position statement on metabolic and cardiovascular consequences of polycystic ovary syndrome. *Endocr Pract* 2005;11:126-34
6. Basavaraj KH, Navya MA, Rashmi R. Relevance of psychiatry in dermatology: Present Concepts. *Indian J Psychiatry*. 2010;52:270-5.
7. Koblenzer CS. Psychosomatic concepts in dermatology. *Arch Dermatol*. 1983;119:501-12.
8. Picardi A, Amerio P, Baliva G, Barbieri C, Teofoli P, Bolli S, et al. Recognition of depressive and anxiety disorders in dermatological outpatients. *Acta Derm Venereol*. 2004;84:213-7.
9. Koo JY, Shellow WV, Hallman CP, Edwards JE. Alopecia areata and increased prevalence of psychiatric disorders. *Int J Dermatol*. 1994;33:849-50

10. Kovabel H, Dudek D, Jaworek A, Wojas-Pelc A. Psychodermatology: Psychological and psychiatric aspects of dermatology. [Polish] Przegl Lek. 2008;65:244–8.
11. Gupta MA, Gupta AK. Depression and suicidal ideation in dermatology patients with acne, alopecia areata, atopic dermatitis and psoriasis. Br J Dermatol. 1998;139:846–50.
12. Koo JY, Shellow WV, Hallman CP, Edwards JE. Alopecia areata and increased prevalence of psychiatric disorders. Int J Dermatol. 1994;33:849–50.
13. Colon EA, Popkin MK, Callies AL, Dessert NJ, Hordinsky MK. Lifetime prevalence of psychiatric disorders in patients with alopecia areata. Compr Psychiatry. 1991;32:245–51.
14. Bondade S, Hoshota A, Basavaraju V. Stressful life events and psychiatric comorbidity in acne-a case control study. Asia Pac Psychiatry. 2019 Mar;11(1):e12340. Epub 2018 Nov 8.
15. Khan MZ, Naeem A, Mufti KA. Prevalence of mental health problems in acne patients. J Ayub Med Coll Abbottabad. 2001 Oct-Dec;13(4):7-8.

Source of Support: Nil.

Conflict of Interest: None Declared.

Copyright: © the author(s) and publisher. IJMRP is an official publication of Ibn Sina Academy of Medieval Medicine & Sciences, registered in 2001 under Indian Trusts Act, 1882.

This is an open access article distributed under the terms of the Creative Commons Attribution Non-commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Cite this article as: Mukesh Batra. Assessment of Psychiatric Illness in Severe Acne Patients: An Institutional Based Study. Int J Med Res Prof. 2019 May; 5(3):290-93.
DOI:10.21276/ijmrp.2019.5.3.067