

Research Article

Psychiatric morbidity in psoriasis: a study in Himachal Pradesh, India

Subhash Kashyap¹, Ajay Kumar^{2*}, Ramesh Kumar³, Vinay Shanker⁴

¹Department of Dermatology, Venereology and Leprosy, Dr. YS Parmar Medical College, Nahan, Himachal Pradesh, India

²Regional Hospital Solan, Himachal Pradesh, India

³Department of Psychiatry Indira Gandhi Medical College Shimla, Himachal Pradesh, India

⁴Department of Dermatology, Indira Gandhi Medical College Shimla, Himachal Pradesh, India

Received: 01 June 2016

Accepted: 06 June 2016

*Correspondence:

Dr. Ajay Kumar,

E-mail: drajaykkaushik@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. 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.

ABSTRACT

Background: Psychiatric morbidity in psoriasis is influenced by socio-cultural factors. Most of the studies in this perspective are done in western setup; to extrapolate them on Indian patients with different demographic and socio-cultural profile may not be appropriate. Our study was designed to evaluate the prevalence and its correlation to various socio-economic variables in Indian patients.

Methods: This was a non-interventional, cross-sectional study, in which 125 consecutive psoriasis patients over one year were screened for psychiatric morbidity. Demographic and disease parameters including Psoriasis Area and Severity Index (PASI), Psoriasis Disability Index (PDI), General Health Questionnaire (GHQ), Comprehensive Psychopathological Rating Scale (CPRS) were recorded along with the severity assessment of psychiatric morbidity and its relation to these variables was analyzed.

Results: Among 125 psoriasis patients, 43 (35.2%) had psychiatric morbidity. Thirty two (26.4%) had depression, 3 (2.4%) had dysthymia, generalized anxiety disorder and adjustment disorder each, and 2 (1.6%) suffered social phobia. A significant increase in psychiatric morbidity was seen with increase in PDI and PASI scores.

Conclusions: There is a significant psychiatric morbidity associated with psoriasis and it increases with severity of the disease.

Keywords: Depressive disorder, Psoriasis, Psychiatric morbidity

INTRODUCTION

Psychiatric morbidity in psoriasis has been defined as psychiatric disorder associated with psoriasis, as a result of the disease. Due to its chronic and disfiguring nature psoriasis leads to immense stress. Endocrine as well as neurological factors resulting from abnormal activation of hypothalamic pituitary adrenal axis due to stress play an important role in causation of psychiatric morbidity.¹ Stress is a trigger as well as exacerbating factor in pathogenesis of psoriasis.² Very high rates of stressful life events, ranging from 43 to 68%, have been reported to be preceding the onset of the illness in various studies.^{3,4}

The data on prevalence of psychiatric morbidity in psoriasis among patients of the psoriasis varies from 26.25% to 95% in previous studies done abroad.⁵

Data on Indian patients is limited as only a few studies have been done.^{6,7} Indian studies reported a psychiatric morbidity ranging from 32.33% to 84%.^{6,8} Another study from India found functional impairment in two third of their patients.⁹

With few studies, comprehensive data about prevalence of psychiatric morbidity of psoriasis is limited in the Indian setup. It is perhaps underestimated in Indian

settings or may not be considered important in management of the disease. In this study, we analyzed the prevalence of psychiatric morbidity in psoriasis and its correlation to various socioeconomic and demographic variables.

METHODS

Study design

This was a non-interventional, cross-sectional study in which patients attending the psoriasis clinic of our centre between August 2011 and July 2012 were screened for the presence of psychiatric morbidity. Two dermatologists and one psychiatrist were involved in this study.

Data collection

All consecutive psoriasis patients and an equal number of age, sex and socioeconomically matched controls over this period were screened for the presence of psychiatric morbidity after an informed consent. Psoriasis was diagnosed clinically based on the presence of characteristic skin lesions. Demographic and disease data were recorded in a predesigned proforma including age of onset of disease, family history of psoriasis, duration of skin lesions, marital status, locality (rural/urban), occupation and years of education. Severity of disease was assessed by the Psoriasis Area and Severity Index (PASI score ranges from 0 to 72, mild 0-3, moderate 3-10, and severe >10) and Psoriasis Disability Index (PDI) respectively (PDI score ranges from 0 to 45). The study was approved by the competent ethics committee.^{10,11}

Diagnosis of psychiatric morbidity

Diagnosis of psychiatric morbidity was made on the basis of a self-administered questionnaire, Hindi version of the General Health Questionnaire-12 (GHQ-12).¹² Score of three or more was considered positive and such patients were further assessed with Comprehensive Psychopathological Rating Scale (CPRS).¹³ All 65 symptoms included in this scale were assessed according to intensity, frequency and duration on severity grading of zero to three. International Classification of Diseases-10th Revision (ICD-10) 14 was used to diagnose psychiatric morbidity.

Statistical analysis

Statistical analysis was carried out using Fisher exact test analysis while parametric variables were analyzed using Paired Student's t-test. To find the correlation among various variables, Spearman's rank correlation analysis was carried out for select variables.¹¹

RESULTS

Overall, 125 patients with psoriasis were seen over this period. The mean age of the study group was 39.92 ± 12.94 (range, 16-70 years), and the male-to-female ratio was 1.6:1 (78:47). Forty five (36%) patients were below the age of 35 years. Single to married ratio was 1.3:1 (71:54). The mean age of onset of psoriasis was 26.23 ± 11.2 years (range, 4-53 years), and mean duration of disease was 8.86 ± 9.93 years (range, 1-51 years). Family history of psoriasis was present in 16.7% and mean education years were 11.0 ± 3.74 . Rural to urban ratio was 3.2:1 (95:30), 27 (21.6%) were smokers, sixteen (12.8%) reported job stress due to the disease, and 46 (36.8%) reported disease aggravation following stressful life events. There were 20 (16%) migrants in the study; half of them had psychiatric morbidity.

Table 1: Diagnostic break-up of patients with psychiatric morbidity.

Psychiatric disorder	n=125	%
GHQ positive	60	48
Depression	33	28.8
Dysthymia	3	2.4
Adjustment disorder	3	2.4
Anxiety	3	2.4
Social phobia	2	1.6
Alcohol abuse	4	3.2
Total psychiatric morbidity	48	38.4

In GHQ assessment sixty patients (48%) and five controls screened positive. Assessment of symptoms in CPRS revealed that forty three (35.2%) psoriasis patients and two controls had one or the other psychiatric disorder on the basis of ICD-10. Among the psoriasis patients, thirty two (26.4%) had depression (mild, 12; moderate, 18; severe, 3), three (2.4%) had dysthymia, generalized anxiety disorder and adjustment disorder each, and 2 (1.6%) suffered social phobia. Alcohol abuse was seen in four patients but none fulfilled the criteria of addiction (Table 1). Suicidal ideation and sexual dysfunction was seen in 7 (5.6%) and 15 (12%) patients respectively. However there was no history of suicidal attempts. Significantly increased in psychiatric morbidity was seen in younger patients (below age 35 years), migrants, stressed and unmarried/single patients, There was no correlation of psychiatric morbidity to gender, smoking habit, locality (rural/urban), duration of disease, years of education and occupation.

Psoriasis is a chronic, disfiguring, inflammatory disease affecting 2-3% of the world population.¹⁵ It accounts for 2.3% of total dermatology outpatients in India.¹⁶ Recognition of co-morbidities associated with psoriasis is important in its management as psychiatric morbidity leads to decrease quality of life of the patients and hampers the treatment outcomes.⁹ Improvement in

disease severity lead to decreased frequency of psychiatric morbidity.¹⁷ Difference in prevalence rates found in some studies could well be due to difference in demographic profile of the patients. Some studies also used different diagnostic system for psychiatric disorders accounting for the difference in the reported prevalence.^{20,21}

The prevalence of psychiatric morbidity reported in previous studies varies worldwide, ranging from 26.4% to 95%.^{5-7,9,11} Earlier studies in India reported prevalence ranging from 30.2 to 84%.^{6-8,11} A lower prevalence (35.2%) in our study may be explained as most of our patients were from rural background with less appearance related concern, as observed earlier.¹⁶ They found increased impairment with duration with disease which is in contradiction to our study and other studies¹¹ as it is reasoned that patients tend to adjust to the disease with time.

Depression has been reported as the most common psychiatric morbidity in psoriasis, in Indian as well as international studies ranging from 23.3% to 44%, in agreement with our study (24.8%).^{12,17,18} However, Mattoo et al from Chandigarh found adjustment disorder as the commonest psychiatric morbidity.⁶ This study was done in urban population and involved patients from higher socioeconomic status which may be the reason for the different results. Similarly generalized anxiety disorder was also slightly lower (4%) in our study than Saleh et al and Esposito et al, who found anxiety in 12% and 8% psoriasis patients respectively. While Kumar et al also found higher percentage of anxiety in their patients in Jodhpur.^{8,17,18}

Depression leads to increased risk of suicide and sexual dysfunction in these patients. Suicidal ideation ranges from 2.5% to 9.7%.¹⁹ Suicidal ideation was again on the lower side in this study as compared to western study by Gupta et al in which 9.7% reported suicidal ideation and 5.5% had attempted suicide.²² Sexual dysfunction is reported in psoriasis patients in various studies. This study found reduced sexual interest in fifteen (12%) patients. In western literature the prevalence of sexual dysfunction in psoriasis is reported to be 22.4% women and 20.8% men.²³ Ramsay et al reported inhibition in sexual relationships in 50% of South American psoriasis patients.²³ Cultural differences may be the reason for the difference in reporting sexual problems. However, Gaikwad et al from India reported sexual dysfunction in 20.9% of their psoriasis patients.⁹ In our study alcohol abuse was found in four (3%) of patients in agreement with previous studies.²⁴

Among the 20 migrant patients in our study, psychiatric morbidity was found in half of them, slightly higher than other patients. Similar finding were reported by Sinniah et al from Malaysia where they found increased psychiatric morbidity in migrant Indian and Chinese patients.²⁵

Previous studies found increased psychiatric morbidity in stressed patients.^{26,9} Similarly, 81.3% of psoriasis patients having stress in this study were diagnosed with psychiatric disorder. 62.5% of single patients had psychiatric morbidity in our study, similar to an earlier report by Magin et al.²⁷

Appearance-related concerns dominate the experiences of young people with psoriasis. Younger psoriatic patients, below the age of thirty five, had significant increase in psychiatric morbidity in this study. Higher level of psychiatric morbidity in younger psoriasis patients is in accordance with previous study by Kurd et al.²⁸ A statistically significant proneness of younger patients to psychiatric morbidity was also found study by Saleh et al.¹⁷

Increase in severity of psoriasis lead to increased psychiatric morbidity. Similar trend was noticed in previous studies.^{2,8,11,17,29} This can well be explained as patients with severe psoriasis have poor quality of life.¹¹ A positive correlation seen in our study between PDI and GHQ positivity is a reflection of this trend. Psoriasis severity was not significantly related to disease duration, level of education, occupation and socioeconomic status.^{6,7}

Thus we conclude that 44 (32.5%) patients had psychiatric morbidity most commonly manifesting as depression. Psychiatric morbidity increases with severity of disease and in special patient groups like migrants, stressed, singles and younger patients. There is a need to assess all patients of psoriasis for psychiatric morbidity to improve treatment outcome and quality of life in patients of this chronic dermatological condition.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Richards HL, Ray DW, Kirby B, Mason D, Plant D, Main CJ, Fortune DG, Griffiths CE. Response of the hypothalamic-pituitary-adrenal axis to psychological stress in patients with psoriasis. *Br J Dermatol.* 2005;153:1114-20.
2. Fortune DG, Main CJ, O'Sullivan TM, Griffiths CEM. Quality of life in patients with psoriasis: the contribution of clinical variables and psoriasis specific stress. *Br J Dermatol.* 1997;137:755-60.
3. Devrimci-Ozguven H, Kundakci TN, Kumbasar H, Boyvat A. The depression and quality of life in psoriasis patients. *J Eur Acad Dermatol Venereol.* 2002;14:267-71.
4. Dika E, Maibach HI. Exogenous factors and psoriasis. *Exog Dermatol.* 2004;3:214-22.
5. Muammer S, Tuba A, Yelda K, Hamdi O. Psychiatric morbidity in dermatology patients:

- Frequency and results of consultations. *Ind J Dermatol.* 2006;51:18-22.
6. Mattoo SK, Handa S, Kaur I, Gupta N, Malhotra R. Psychiatric morbidity in psoriasis: prevalence and correlates in India. *Ger J Psych.* 2005;8:17-22.
 7. SV Rakesh, D'Souza M, Sahai A. Quality of life in psoriasis: a study from south India. *Ind J Dermatol Venereol Leprol.* 2008;74:600-6.
 8. Kumar S, Kachhawa D, Koolwal GD, Gehlot S, Awasthi A. Psychiatric morbidity in psoriasis patients: A pilot study. *Indian J Dermatol Venereol Leprol.* 2011;77:625.
 9. Gaikwad R, Deshpande S, Raje S, Dhamdhare DV, Ghate MR. Evaluation of functional impairment in psoriasis. *Indian J Dermatol Venereol Leprol.* 2006;72:37-40.
 10. Kumar R, Sharma A, Dogra S. Prevalence and clinical patterns of psoriatic arthritis in Indian patients with psoriasis. *Indian J Dermatol Venereol Leprol.* 2014;80:15-23.
 11. Mehta V, Malhotra SK. Psychiatric evaluation of patients with psoriasis vulgaris and chronic urticaria. *Ger J Psych.* 2007;10:104-10.
 12. Gautam S, Nijhawan M, Kamal P. Standardization of hindi version of goldberg's general health questionnaire. *Ind J Psychiatry.* 1987;29:63-6.
 13. Asberg M, Montgomery SA, Perris C. A comprehensive psychopathological rating scale. *Acta Psychiatr Scand Suppl.* 1978;271:5-27.
 14. World Health Organization. The international classification of diseases - 10th Revision. Geneva: World Health Organization. 1992;3:21-22.
 15. Naldi L, Svensson A, Diepgen T. Randomized clinical trials for psoriasis 1997-2000. The EDEN survey. *J Invest Dermatol.* 2003;120:738-41.
 16. Simonic E, Kastelan M, Cabrijan L, Stasic A, Gruber F. The influence of psychological factors on the development and course of psoriasis. *Acta dermatovenerologica.* 2000;9:2-12.
 17. Hanan MS, M Salem SA, Rania S. Comparative study of psychiatric morbidity and quality of life in psoriasis, vitiligo and alopecia areata. *Egy J Dermatol.* 2008;4:2-12.
 18. Esposito M, Saraceno R, Giunta A, Maccarone M, Chimenti S. An italian study on psoriasis and depression. *Dermatology.* 2006;212:123-7.
 19. Picardi A, Mazzotti E, Pasquini P. Prevalence and correlates of suicidal ideation among patients with skin disease. *J Am Acad Dermatol.* 2006;54:420-6.
 20. Attah Johnson FY, Mostaghimi H. Co-morbidity between dermatologic diseases and psychiatric disorders in Papua New Guinea. *Int J Dermatol.* 1995;34:244-48.
 21. Bharath S, Shamasundar C, Raghuram R, Subbakrishna DK. Psychiatric morbidity in leprosy and psoriasis - a comparative study. *Ind J Lepr.* 1997;69:341-6.
 22. Gupta MA, Gupta AK. Psychiatric and psychological co-morbidity in patients with dermatologic disorders: epidemiology and management. *American J Clin Dermatol.* 2003;833-42.
 23. Ramsay B, O'reagan Myra. A survey of the social and psychological effects of psoriasis. *Br J Dermatol.* 2008;118:195-201.
 24. Aurangabadkar SJ. Comorbidities in psoriasis. *Indian J Dermatol Venereol Leprol.* 2013;79:10-7.
 25. Sinniah B, Devi SS, Prashant BS. Epidemiology of psoriasis in Malaysia: a hospital based study. *Med J Malaysia.* 2010;12:112-4.
 26. Russo PA, Ilchef R, Cooper AJ. Psychiatric morbidity in psoriasis: a review. *Australas J Dermatol.* 2004;45:155-9.
 27. Magin P, Pond C, Smith W, Watson A, Goode SA. Cross-sectional study of psychological morbidity in patients with acne, psoriasis and atopic dermatitis in specialist dermatology and general practices. *J Euro Aca Dermatol and Venereol.* 2008;22:1435-44.
 28. Kurd SK, Andrea B, Paul Crits-Christoph, Gelfand JM. Quality of life in psoriasis. *Arch Dermatol.* 2010;146:891-5.
 29. Sampogna F, Sera F, Abeni D. Measures of clinical severity, quality of life, and psychological distress in patients with psoriasis: a cluster analysis. *J Invest Dermatol.* 2004;122:602-7.

Cite this article as: Kashyap S, Kumar A, Kumar R, Shanker V. Psychiatric morbidity in psoriasis: a study in Himachal Pradesh, India. *Int J Res Med Sci* 2016;4:2524-7.