Original Research Article

A study of psychiatric morbidity in patients of psoriasis

Prasad K Tagad[1], Vishal A Indurkar[2*], Pritish K Raut[3]

{[1]Assistant Professor, Department of Psychiatry} {[2]Associate Professor, Department of Dermatology} {[3]Associate Professor, Department of Community Medicine} DVVPF's Medical College & Hospital, Ahmednagar-414111(MS), India
Email: drvishalindurkar@gmail.com

Abstract

Background: Psoriasis is common, chronic dermatological disorder with no permanent cure may contribute to psychiatric co-morbidity in these patients especially moderate to severe type of psoriasis. **Aim and Objective:** The study was conducted to assess the psychiatric morbidity and their prevalence amongst psoriasis patients. To determine the co-relation of psychiatric co-morbidity with sociodemographic and clinical profile of the psoriasis. **Methodology:** fifty consecutive clinically diagnosed patients of psoriasis were interviewed by "Mini International Psychiatric Interview (MINI)" questionnaire to determine psychiatric co-morbidity as per ICD 10 DCR. **Results:** Our study found an overall prevalence of psychiatric morbidities of 48% (n=24) in patients of psoriasis. 8 patients (16%) were having diagnosis of Anxiety NOS, 10% were having Depressive episode -mild. other comorbid Psychiatric diagnosis were generalised anxiety disorder(n=12, 6%), Depressive episode - moderate (n=4,8%), Dysthymia (n=2, 4%) and Alcohol dependence (n=2, 4%). **Conclusion:** Due to chronicity, relapsing course and no permanent cure to psoriasis, (especially moderate to severe) is often associated with psychiatric co-morbidities. Hence moderate to severe type of psoriasis patients must undergo psychiatric evaluation for better outcome of psoriasis management.

Key Words: Psoriasis, Psychiatric co-morbidity, MINI, Depression, Anxiety

***Corresponding Author:**
Dr. Vishal A. Indurkar, Department of Dermatology, DVVPF's Medical College & Hospital, Ahmednagar-414111(MS), INDIA
Email: drvishalindurkar@gmail.com
Received Date: 22/10/2019 Revised Date: 18/11/2019 Accepted Date: 02/12/2019
DOI: https://doi.org/10.26611/1071233

INTRODUCTION

Psoriasis affects approximately 1–6% of peoples in the world. There are two-peak age of onset for the psoriasis; the first peak of onset is between 16–22 years, and second peak of onset is between 57–60 years.[1] In India the prevalence of psoriasis varies from 0.44 to 2.8%, it is twice more common in males than females. Most of the patients presents during their third or fourth decade.[2] Skin acts as an organ of sensation, sexuality and social interaction. The condition of the skin affects body-image and self-esteem, as well as aspects of social life such as participation and interaction at work or at school. Social rejection is a common feeling experienced by people with psoriasis. Several studies have described common reactions to psoriasis as including embarrassment, impaired daily activities, anxiety, anger, and depression.[3-5] Several factors in combination contribute to the development of psoriasis, like genetic factors, trauma, infection, certain medicines, such as non-steroidal anti-inflammatory drugs (NSAIDs), betablockers, antimalaria medicine, and lithium, endocrine factors, sunlight, metabolic factors, alcohol, cigarette, and psychological factors etc. The role of psychological problems in aetiology and exacerbation of psoriasis is debatable, although it is widely believed that stress has an important role in triggering psoriasis. The mechanism of stress-related exacerbations of psoriasis involved the nervous, endocrine and immune systems.[6] Psoriasis causes stress and in turn, stress can worsen psoriasis. Most of the patients suffering from psoriasis report disease related stress, arising mainly from the cosmetic disfigurement and social stigma of psoriasis.[1] The adverse mental health

How to cite this article: Prasad K Tagad, Vishal A Indurkar, Pritish K Raut. A study of psychiatric morbidity in patients of psoriasis. *MedPulse – International Journal of Psychology.* December 2019; 12(3): 67-72. http://www.medpulse.in

aspects of psoriasis have multiple dimensions ranging from direct psychological bearing on the sufferer to potentially worsening the disease process. Patient's disturbed psychological state can hamper their ability to comply to and respond to given treatment regime. The burden of disease ranging from physical pain, psychological distress and social stigma further escalates it. It is found that control of psoriasis symptoms has been associated with improvement in psychological symptoms. Thus identification and management of the psychological symptoms can decrease both the financial burden and therapeutic period.[7]Hence, management of patients with psoriasis requires a multidisciplinary approach, involving dermatological and psychological treatments simultaneously. Most of the research regarding psychological aspects of Psoriasis is from western world. The psychosocial factors in the developing countries like India are different from that of the developed countries. As there are very few Indian studies regarding psychiatric morbidity in patients suffering from Psoriasis, the present study was carried out. Our study aimed to measure the prevalence of psychiatric morbidity and its correlation with sociodemographic and clinical variables in patients of psoriasis attending a Tertiary Care Hospital of Ahmednagar, in Maharashtra, India.

METHODOLOGY

The study was conducted by the Departments of Psychiatry and Dermatology, of a Tertiary Care Hospital of Ahmednagar in Maharashtra, India. It was an observational cross-sectional study. The study protocol was approved by the Institutional Ethics Committee and the study period was 6 months. All consecutive patients of Psoriasis aged 18-64 years, attending Dermatology OPD, were considered for the study. Patients with comorbid skin disorders and chronic medical conditions were excluded from the study. Total 50 patients were included in study and a written informed consent was obtained from them. A semi-structured proforma was used to record the sociodemographic data and clinical details of the patients. The Psoriasis Area and Severity Index (PASI) was used by the consultant dermatologist, to rate the severity of psoriasis.[8] Then the patients were evaluated by consultant psychiatrist by using MINI Plus.[9] The diagnosis of comorbid psychiatric condition was done using ICD-10 Diagnostic Criteria for Research (WHO, 1993). The results obtained were tabulated and statistical analysis was done with the help of Statistical Package for Social Sciences (SPSS) for Windows (version 11.5) and 2007.

RESULTS

Table 1: Distribution of Sociodemographic Variables in Patients of Psoriasis

Variables	Sub-variables	No.	Percentage (%)
Age	≤ 40 years	27	54
	> 40 years	23	46
Sex	Male	34	68
	Female	16	32
Marital status	Married	36	72
	Single	14	28
Occupation	Employed	38	76
	Unemployed	12	24
Socio-economic class (Kuppuswamy classification)	Lower	2	4
	Lower middle	17	34
	Upper middle	2	4
	Upper lower	29	58

Table 2: Clinical Variables of Psoriasis

Variables	Sub-variables	No.	Percentage (%)
Type of Psoriasis	Psoriasis vulgaris	44	88
	Pustular psoriasis	2	4
	Palmoplantar psoriasis	2	4
	Erythrodermic psoriasis	1	2
	Scalp psoriasis	1	2
Age of onset	≤ 35 years	35	70
	> 35 years	15	30
Duration of illness	0 – 5 years	24	48
	6 – 10 years	16	32
	> 10 years	10	20
PASI score	≤ 10	18	36
	10 – 19.9	16	32
	> 20	16	32

Table 3: Distribution of comorbid Psychiatric diagnosis in patients of Psoriasis

Comorbid Psychiatric Diagnosis	No of patients	Percentage (%)
Present	24	48
Absent	26	52

Table 4: The type and distribution of comorbid psychiatric diagnosis in patients of Psoriasis

Psychiatric Diagnosis	No of patients	Percentage (%)
Anxiety NOS	8	16
General anxiety disorder	3	6
Depressive Episode – mild	5	10
Depressive Episode– moderate	4	8
Dysthymia	2	4
Alcohol dependence	2	4
Nil Psychiatric Diagnosis	26	52

Table 5: Correlation between Sociodemographic Variables and Comorbid Psychiatric Diagnosis in Patients of Psoriasis

Variables	Sub-variables	Psychiatric Diagnosis		Chi-square value	p value
		Present (%)	Absent (%)		
Age	≤ 40 years	19 (79.2)	8 (30.8)	11.768	0.001
	> 40 years	5 (20.8)	18 (69.2)		
Sex	Male	15 (62.5)	19 (73.1)	0.642	0.547
	Female	9 (37.5)	7 (26.9)		
Marital status	Married	13 (54.2)	23 (88.5)	7.281	0.011
	Single	11 (45.8)	3 (11.5)		
Occupation	Employed	16 (66.7)	22 (84.6)	2.204	0.190
	Unemployed	8 (33.3)	4 (15.4)		
Socio-economic class (Kuppuswamy classification)	Lower	1 (4.2)	1 (3.8)	0.290	0.962
	Lower middle	9 (37.5)	8 (30.8)		
	Upper middle	1 (4.2)	1 (3.8)		
	Upper lower	13 (54.2)	16 (61.5)		

Table 6: Correlation between Clinical Variables and Comorbid Psychiatric Diagnosis in Patients of Psoriasis

Variables	Sub-variables	Psychiatric Diagnosis		Chi-square value	p value
		Present (%)	Absent (%)		
Age of onset	≤ 35 years	22 (91.7)	13 (50.0)	10.317	0.002
	> 35 years	2 (8.3)	13 (50.0)		
Duration of illness	0 – 5 years	13 (54.2)	11 (42.3)	0.738	0.691
	6 – 10 years	7 (29.2)	9 (34.6)		
	> 10 years	4 (16.7)	6 (23.1)		
PASI score	≤ 10	5 (20.8)	13 (50.0)	7.738	0.021

A statistically significant association was found between age (p value: 0.001), marital status (p value: 0.011) and comorbid psychiatric diagnosis in patients of psoriasis. No significant association was found between other sociodemographic variables and comorbid psychiatric diagnosis. Age of onset (p value: 0.002) and PASI score (p value: 0.021) were significantly associated with comorbid psychiatric diagnosis in patients of psoriasis. (**Table 5 & 6**)

DISCUSSION

The present study assessed the prevalence of psychiatric morbidity in psoriasis patients of a Tertiary Care Hospital of Ahmednagar in Maharashtra, India. We also studied the impact of sociodemographic and clinical variables on psychiatric morbidity. Chronic and severe skin disorders are usually associated with psychiatric comorbidity. Psoriasis is one of the most common skin disorders. The chronic nature of the disease has a prominent negative influence on psychological and social well-being of the patient. Psychological distress has a significant and adverse effect on long term outcome in patients with psoriasis.[10]

Prevalence of psychiatric morbidity in patients of psoriasis : Our study found an overall prevalence of psychiatric morbidities of 48% (n=24) in patients of psoriasis. 8 patients (16%) were having diagnosis of Anxiety NOS, 10% were having Depressive episode - mild. other comorbid Psychiatric diagnosis were generalised anxiety disorder(n=12, 6%), Depressive episode - moderate (n=4,8%), Dysthymia (n=2, 4%) and Alcohol dependence (n=2, 4%). Gaikwad *et al* in a study of 43 psoriasis patients found psychiatric comorbidity in Sixty-seven percentage of the patients.[11] In another study psychiatric morbidity was studied in 103 psoriasis patients, using the general health questionnaire (GHQ). They found psychiatric morbidity in 24.7% of the patients. The psychiatric diagnoses as per ICD-10 were adjustment disorder (62%), depressive episode (29%) and dysthymia (4%).[12] Zachariae and colleagues reported that patients with psoriasis have 40–90% more psychological morbidity than the general population.[13] Various studies have reported a prevalence of depression from 28% to 67% in patients with psoriasis..[14-17] In our study 10% were having Mild Depressive episode, 8% moderate Depressive episode and 4% were having Dysthymia. Heterogeneity in the assessment tools used across various studies to determine psychiatric morbidity could explain these variations, to some extent. In our study 16% patients were having diagnosis of Anxiety NOS and 6% had generalised anxiety disorder as per ICD-10. Similar findings were reported by other studies. [18,19] This high prevalence of anxiety can be due to higher apprehension about the illness, duration and outcome of treatment in patients of psoriasis. Also fear of investigations and worry concerning the financial aspects of treatment leads to anxiety.

Substance abuse : Some reports suggest that there is a higher prevalence of alcohol abuse and cigarette smoking in patients with psoriasis. In one study, there was an 4%prevalence of alcohol dependence.[20,21] There is an increased incidence of alcohol abuse in patients with psoriasis and alcohol abuse is related to a higher incidence and greater severity of psoriasis. Alcohol related disorders, such as alcoholic liver cirrhosis, may also exacerbate psoriasis or prevent the expected response to given therapy.[22]

Correlation between sociodemographic variables and Comorbid Psychiatric diagnosis in patients of psoriasis : Sociodemographic variables have consistently shown the least impact on psychiatric morbidity in patients with psoriasis.[18,23] We found a statistically significant association was found between age (p value: 0.001), marital status (p value: 0.011) and comorbid psychiatric diagnosis in patients of psoriasis. No significant association was found between other sociodemographic variables and comorbid psychiatric diagnosis. In this study, younger patients found to have more psychiatric morbidity. However, Sampogna *et al*[24] observed that psychological distress was higher in older patients with psoriasis.

Correlation between clinical variables and Comorbid Psychiatric diagnosis in patients of psoriasis :

Age of onset of psoriasis: In general, about 40% of patients have the onset of psoriasis before the age of 30 years. This early onset can have severe effects on an individual's psychological health.[25] In our study, early onset (≤ 35 years) of psoriasis was significantly associated with comorbid psychiatric diagnosis in patients. This finding is in accordance with a study by Youn *et al*,[26] that revealed psoriasis with an onset prior to age 40 to be associated with more psychological stress compared with later onset. Gupta *et al* found patients with early onset (younger than 40 years) presenting with greater psychopathology, probably as a result of greater genetic susceptibility and experiencing more severe and recurrent psoriasis.[27] Ginsburg and Link suggested that older age at onset of psoriasis was associated with lower psychosocial morbidity. Patients who were older at the time of onset of their psoriasis reported being less sensitive to others' opinions, had a lesser tendency to anticipate rejection in social situations, were less secretive and had fewer feelings of guilt and shame in relationship to their psoriasis.[25] However, Kossakowska

et al. found that adjusting to psoriasis later in life may be more difficult than in earlier years when a patient is young and has a lot of time to deal with negative emotions, especially anger.[28]

Severity of illness: Various studies have shown a significant association between illness severity and duration of psoriasis and psychiatric morbidity.[17, 29-31] The psychiatric morbidity found to be increasing with severity of psoriasis. Similarly, the severity of anxiety -depression was more in patients with longer duration of illness. Our study also showed that patients with higher PASI scores are likely to have a psychiatric morbidity. However, Fortune *et al* found that the psychiatric morbidity is not determined by the severity of psoriasis.[32]

Duration of illness: Fried *et al*. and Esposito *et al*. found a meaningful association between the severity of anxiety - depression and psoriasis illness duration. Our study showed no significant association between duration of psoriasis and psychiatric morbidity.[33,34]

CONCLUSION

This study shows significant impact of psoriasis on patients social life which leads to various psychiatric co-morbidities. Psychological distress has a significant and negative effect on long term management outcome in patients with psoriasis. Hence in a patient with moderate to severe disease, dermatologist should vigilant about symptoms suggestive of psychological disturbances and refer the suspected patients to Psychiatrists for detailed evaluation and necessary early intervention.

REFERENCES

1. C. E. M. Griffiths and R. D. R. Barker, "Psoriasis. In: Rook- W. Wilkinsum Ebling," Text book of dermatology, Last ed. Blackwell Science, 2004.
2. Dogra S, Yadav S. Psoriasis in India: Prevalence and pattern. Indian J Dermatol Venereol Leprol 2010;76:595-601.
3. Fortune DG et al Psychological stress, distress and disability in patients with psoriasis: consensus and variation in the contribution of illness perceptions, coping and alexithymia. Br J Clin Psychol. 2002;41(Pt 2):157-74.
4. Rapp SR at al. The physical, psychological and social impact of psoriasis. J Health Psychol. 1997;2(4): 525-37.
5. Gupta MA, Gupta AK. Depression and suicidal ideation in dermatology patients with acne, alopecia areata, atopic dermatitis and psoriasis. Br J Dermatol. 1998;139(5):846-50.
6. O'Leary CJ, Creamer D, Higgins E, Weinman J. Perceived stress, stress attributions and psychological distress in psoriasis. J Psychosom Res 2004; 57: 465-471.
7. Sathyanarayana Rao TS, Basavaraj KH, Das K. Psychosomatic paradigms in psoriasis: Psoriasis, stress and mental health. Indian J Psychiatry 2013;55:313-5.
8. Fredriksson T, Pettersson U. Severe psoriasis - oral therapy with a new retinoid. Dermatologica 1978;157:238-44.
9. Sheehan DV & Lecrubier, Y. 2006. Mini International Neuropsychiatric Interview (MINI) Plus. 5ooth ed. Florida-Tampa: University of South Florida.
10. Mattoo, S.K., Handa, S., Kaur, I., Gupta, N., Malhotra, R., 2005. Psychiatric morbidity in psoriasis: prevalence and correlates in India. German Journal of Psychiatry 8, 17–22.
11. Gaikwad R, Deshpande S, Raje S, Dhamdhere DV, Ghate MR. Evaluation of functional impairment in psoriasis. Indian J Dermatol Venereol Leprol 2006;72:37-40.
12. Matto SK, Handa S, Kaur I, Gupta N, Malhotra R. Psychiatric morbidity in vitiligo and psoriasis: A comparative study from India. J Dermatol 2001;28:424-32.
13. Zachariae R, Zachariae H, Blomqvist K, Davidsson S, Molin L, Mork C, et al. Quality of life in 6497 Nordic patients with psoriasis. Br J Dermatol. 2002;146(6):1006–16.
14. Golpour M, Hosseini SH, Khademloo M, Ghasemi M, Ebadi A, Koohkan F, *et al*. Depression and Anxiety Disorders among Patients with Psoriasis: A Hospital-Based Case-Control Study. Dermatol Res Pract 2012;2012:381905.
15. Nasreen S, Ahmed I, Effendi S. Frequency and magnitude of anxiety and depression in patients with psoriasis vulgaris. J Coll Physicians Surg Pak 2008;18:397-400.
16. Rabin F, Bhuiyan SI, Islam T, Haque MA, Islam MA. Psychiatric and psychological comorbidities in patients with psoriasis- a review. Mymensingh Med J 2012;21:780-6.
17. Akay A, Pekcanlar A, Bozdag KE, Altintas L, Karaman A. Assessment of depression in subjects with psoriasis vulgaris and lichen planus. J Eur Acad Dermatol Venereol 2002;16:347-52.
18. Ader R, Cohen N, Felten D. Psychoneuroimmunology: interactions between the nervous system and the immune system. Lancet 1995;345:99-103.
19. Sadock BJ, Sadock VA, Ruiz P. Anxiety Disorders: Introduction and Overview. In: Kaplan and Sadock's Comprehensive Textbook of Psychiatry. Philadelphia: Wolter Kluwer/ Lippincott Williams & Wilkins; 2009. p. 1840-2.
20. Morse RM, Perry HO, Hurt RD. Alcoholism and psoriasis. Alcohol Clin Exp Res 1985; 9: 396–399.
21. Mills CM, Srivastava RD, Harvey IM, et al. Smoking habits in psoriasis: a case control study. Br J Dermatol 1992; 127: 18–21.
22. Higgins EM, du Vivier AW. Cutaneous disease and alcohol misuse. Br Med Bull 1994; 50: 85–98.
23. Picardi A, Abeni D, Melchi CF, Puddu P, Pasquini P. Psychiatric morbidity in dermatological outpatients: an issue to be recognized. Br J Dermatol 2000;143:983-91.
24. Sampogna F, Chren MM, Melchi CF, Pasquini P, Tabolli S, Abeni D. Age, gender, quality of life and psychological distress in patients hospitalized with psoriasis. Br J Dermatol 2006;154:325-31.

25. Ginsburg IH, Link BG. Feelings of stigmatization in patients with psoriasis. *J. Am. Acad. Dermatol.* 1989; **20** : 53–63.
26. Youn JI, Park BS, Kim SD, Suh DH. Characterization of early and late onset psoriasis in the Korean population. J Dermatol. 1999;26:647–52.
27. Gupta MA, Gupta AK, Watteel GN. Early onset (<40 years age) psoriasis is comorbid with greater psychopathology than late onset psoriasis: a study of 137 patients. Acta Derm Venereol (Stockh). 1996;76:464–6.
28. Kossakowska NM, Ciescinska C, Jaszewska CJ, Placek WJ. Control of negative emotions and its implication for illness perception among psoriasis and vitiligo patients. JEADV. 2010;24(4):429–33.
29. Devrimci-Ozguven H, Kundakci TN, Kumbasar H, Boyvat A. The depression, anxiety, life satisfaction and affective expression levels in psoriasis patients. J Eur Acad Dermatol Venereol 2000;14:267-71.
30. De Korte J, Sprangers MA, Mombers FM, Bos JD. Quality of life in patients with psoriasis: a systematic literature review. J Investig Dermatol Symp Proc 2004;9:140-7.
31. Sampogna F, Tabolli S, Abeni D. The impact of changes in clinical severity on psychiatric morbidity in patients with psoriasis: a follow-up study. Br J Dermatol 2007; 157: 508–513.
32. Fortune DG, Richards HL, Griffiths CEM, Main CJ. Psychological stress, distress and disability in patients with psoriasis: consensus and variation in the contribution of illness perceptions, coping and alexithymia. Br J Clin Psychol 2002;41(Pt 2):157-74.
33. Fried RG, Friedman S, Paradis C, Hatch M, Lynfield Y, Duncanson C, *et al*. Trivial or terrible? The psychosocial impact of psoriasis. Int J Dermatol 1995;34:101-5.
34. Esposito M, Saraceno R, Giunta A, Maccarone M, Chimenti S. An Italian study on psoriasis and depression. Dermatol Basel Switz 2006;212:123-7.

Source of Support: None Declared
Conflict of Interest: None Declared