

Original Research Article

Psychopathology in patients with psoriasis: a cross-sectional clinical study

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ABSTRACT

Background: Psoriasis is associated with a variety of psychological problems including poor self-esteem, sexual dysfunction, anxiety and depressive disorder and suicidal ideation. There are reports that patients with psoriasis may have significant psychiatric morbidity. The objective of the study is to evaluate the frequency of psychiatric disorders, frequency and nature of psychiatric symptoms in patients with psoriasis.

Methods: 100 patients with psoriasis were evaluated and included for the study. Comprehensive Psychopathological Rating Scale (CPRS) is used for assessment of psychiatric symptoms and MINI Plus for assessing psychiatric disorders. Chi-square test was used to compare the proportions.

Results: Patients with psoriasis had high frequency of psychiatric morbidity and was found to be 42%.

Conclusions: Patients with psoriasis have more psychopathology and higher psychiatric morbidity which may further imply justifiable consultation liaison psychiatry in other speciality fields like Dermatology.

Keywords: Psoriasis, Psychiatric morbidity, Psychodermatosis, Psychopathology

INTRODUCTION

Psoriasis is a chronic relapsing disease with characteristic scaly lesions varying from pinpoint plaques to extensive skin involvement, nail dystrophy, and often arthritis.¹ It affects approximately 1-6% (mean 3%) of populations in the world. Two-peak age for the disease; the early age of onset is between 16-22 years, and latent age of onset is between 57-60 years.² Psoriasis of early onset has been associated with a greater genetic susceptibility and a more severe and recurrent course. Psoriasis of late onset has no determined genetic component and is considered to be more reactive, i.e. susceptible to environmental factor.³ The etiopathogenesis of the psoriasis-psychological stress relationship includes peripheral nervous system pathways, Hypothalamic-Pituitary-

Adrenal axis (HPA), and the Sympathetic-Adrenal-Medullary (SAM) system as well as immune-mediated pathways.⁴

Psoriasis has high impact on self-esteem and patients health-related quality of life.⁵ Studies have pointed at mental disorders associated with psoriasis and the etiopathogenic mechanisms behind that co-existence.⁶ Psoriasis vulgaris (also known as chronic stationary psoriasis or plaque-like psoriasis) is the most common form and affects 85%-90% of people with psoriasis.⁷ Psoriasis is also associated with a variety of problems, including poor self-esteem, sexual dysfunction and suicidal ideation.⁸ Patients with psoriasis commonly present unhealthy life behaviors such as heavy smoking and drinking which are generally correlated with

psoriasis severity and/or exacerbation. The presence of psychiatric comorbidities increases the impairment in quality of life in psoriatic patients. 46% reported daily problems secondary to psoriasis.^{9,10} Concerns about chronicity of disease and the absence of a cure are an important undercurrent. It is noticed that patients in whom systemic therapy causes remission to maintain high levels of anxiety because of the fear of relapse.¹¹

Patients with pathological levels of anxiety respond poorly to photochemotherapy. Studies have also found that psychological factors, including perceived health, perception of stigmatization, depression are stronger determinants of disability in patients with psoriasis than disease severity, location and duration.¹² A study conducted by Biljan et al, on 70 patients diagnosed to have psoriasis found that 90% of patients were suffering from various mental disorders. The most frequent mental disorders were depressive disorder (19.2%), the posttraumatic stress disorder (17.8%), alcoholism (16.4%), adjustment disorder (15.1%), anxiety - depressive disorders (13.7%) and generalized anxiety disorder (9.6%). Structured Clinical Interview (SCID - The Structured Clinical Interview for DSM-IV) was applied for the diagnosis of mental disorders.¹³ A study conducted by National psoriasis foundation in 2012 found that 39 percent of the patient with Psoriasis met criteria for depressive disorder, 31 percent for anxiety disorder and a 44 percent had suicidal ideations.^{14,15}

An understanding of the psychosocial difficulties encountered by patients with psoriasis and other chronic skin diseases, and how a biopsychosocial model could be used in the management of such conditions, are unmet needs, which this study hopes to address to some extent.

METHODS

This is a cross sectional clinical study conducted in the department of psychiatry and dermatology of Father Muller Medical College, Kankanady, Mangalore. Patients with diagnosis of Psoriasis admitted in the Dermatology wards or attending the outpatient during the period between November 2014 and January 2016 were included in the study. The institutional ethical committee clearance was obtained. A written informed consent was obtained from all the patients. All the subjects (n=100) underwent a thorough physical and mental status examination. The clinical assessment and the evaluation of psychopathology were done at the first visit. The sociodemographic and clinical information were collected from all patients and recorded using a specially designed proforma for the clinical study. Diagnosis of psychiatric disorders was made by using MINI-PLUS. The psychopathology was rated using Comprehensive Psychopathology Rating Scale. Diagnosis of psoriasis was done and confirmed by a consultation trained in field of Dermatology. Patients between the age group of 20-65 years who were consenting for the study. OP and IP patients with definite diagnosis of Psoriasis were

included for the study. Patients with co morbid major medical or surgical disorder and with other co morbid dermatological disease were excluded. Patients with known primary psychiatric disorders were excluded. Chi-square test was used to compare the proportions. Significance was determined at $p < 0.05$.

RESULTS

Demographic data

Subjects in the age group of 31-40 years constituted the major part. 42% of subjects in the age group of 21-40 years. Age was not a confounding factor in the statistical assessment. The sample constitutes majority of males (64%) among the cases. The largest group in subjects were Hindus (49%). Majority of the subjects were from dominant caste with 74%. 14% of the subjects have completed education upto high school, 44% upto middle school, 2% up to degree and 10% up to pre degree. 22% has completed their education upto primary school and 4% were illiterate. In my sample, 99% of the subjects were married and 1% were single. 55% of the subjects were un-skilled whereas 35% were skilled, 5% were government job, 5% were private employee. 41% of the subjects resided in urban area whereas 59% resided in rural area. 84% of the subjects lived in nuclear families, whereas 16% in joint families. 5% of the subjects had an income >20,000. 22% had an income between 10,000-20,000. 69% had an income between 5000-10,000 whereas 4% had an income less than 5000. 69% of the subjects fell into the category II of SESS, 22% in category III, 5% in category IV and 4% in category I.

Clinical data

44% had duration of Psoriasis for 1-5 years. 33% had duration of 5-10 years, 18% less than 1 year followed by 5% in more than 10 years. 99% of the patients had plaque type of Psoriasis. One patient was diagnosed to have Guttate type. All patients with Psoriasis were on steroids.

Psychiatric morbidity

CPRS scale was used to assess psychopathology. The results indicate the presence of psychopathology among samples. Age wise correlation revealed that psychopathology was more common in younger age group that is, between 31-40 years. Analysis of the educational status with psychopathology, revealed that subjects with less education were found to have higher psychopathology ($p=0.063$). Higher psychopathology was seen in those who were unskilled laborers but there is no statistical significance ($p=0.217$). Those subjects who resided in rural areas had higher psychopathology but was not statistically significant ($p=0.558$). Subjects with longer duration of psoriasis showed higher psychopathology and there was statistically significant in the reported score ($p=0.013$), observed score ($p=0.007$) and total CPRS ($=0.010$). Longer the duration of

treatment, higher were the psychopathology. This was found to be statistically significant in the reported score ($p=0.010$), observed score ($p=0.007$) and total score (0.008).

DISCUSSION

This study was carried out on 100 subjects who attended the Dermatology outpatient department of Father Muller Medical College Hospital, Kankanady, Mangalore. This institution is a multispecialty teaching hospital in private sector, catering to the needs of patients from South Karnataka, Udipi and Northern districts of Kerala.

Sociodemographic variables

In this study majority of the sample are in the age group of 31-40 years followed by the age group of 21-30 years. This can be explained by the bimodal onset of the psoriasis with early age of onset between 16-20 years, and late age of onset between 35-60 years.² Majority of subjects are males among the sample. The majority of the subjects in this study were married (99% in cases and 98% in controls). Earlier studies did not include marital status in their analysis.^{16,20}

The largest number in experimental group were Hindus. Majority of the subjects are from the dominant caste with 74 % in experimental group. Religion wise stratification of subjects was not the focus of earlier studies.^{16,20} 59% subjects resided in rural area. There was statistically significant difference in the occupation of the experimental group with majority of the patients (55%) being un-skilled laborer. Majority of the patients have lower income which is between 5000-10,000 and is grouped under category II of SESS. Earlier studies did not include occupation, income and location of residence in their analysis.^{16,20,23}

Psychiatric disorders

The study reveals that the patient with psoriasis have high frequency of psychiatric disorders. The frequency of psychiatric disorders is found to be 42% in patients with psoriasis as shown in (Figure 1). Among the patients with psychiatric disorders, anxiety disorder is the commonest (26%). Among the patients with anxiety disorders, 14% have generalized anxiety disorder, 12% have mixed anxiety and depressive disorder. The finding is consistent with those of other earlier studies.¹⁶⁻¹⁸

In the present study, the second most commonly diagnosed psychiatric disorder in psoriasis is depressive disorders (16%). Among the patients with depression, 10% have moderate depressive disorder, 4% have dysthymia and 2% have adjustment disorder. This finding is in contrast to the finding of another study which reports depression in 67% of the patients with psoriasis.²⁰ The probable reason for this difference could be limited clinical data and comparison with the healthy controls.²⁰

Psychiatric disorders and socio demographic variables

The result of the present investigation indicates that psychiatric disorders in psoriasis is more common in middle age group (31-40 yrs.) when compared to older age group. This finding is consistent with that of earlier studies.^{16,20} Current study reveals that psychiatric disorders are less in females as compared to males. The possible reasons for this finding could be attributed to the fact that in the present study majority of the sample population are males.

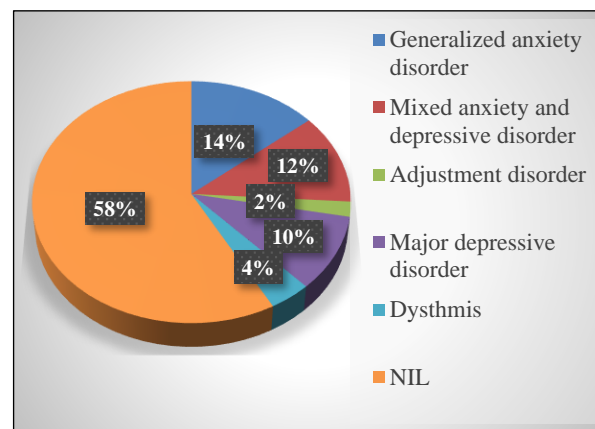


Figure 1: Anxiety disorder is the commonest (26%). Among the patients with anxiety disorders, 14% have generalized anxiety disorder, 12% have mixed anxiety and depressive disorder. Second most common is depressive disorders (16%). Among the patients with depression, 10% have moderate depressive disorder, 4% have dysthymia and 2% have adjustment disorder.

Current investigation reveals that psychiatric disorders is less in unmarried group compared to the other groups, but the difference is not statistically significant. It is possible that proportion of patients remained unmarried due to psoriasis and the associated stigma. Present study reveals that there are more psychiatric disorders in Hindu population, but the difference is not statistically significant. The present investigator fails to find earlier reports which agree with current finding. The reason for this finding could be attributed to the fact that majority of the patients in the present study are Hindus. The predominance of the Hindus in the sample could be due to predominant Hindu local community in and around Mangalore.

The current investigation reveals that there are more psychiatric disorders in less educated persons, but the difference is not statistically significant. The result of the present study is consistent with that of previous study.¹⁶ The reason could be that the majority of the sample population have low education. The lower education results in poor knowledge about the illness and its outcome. These can lead to disabling deformity. The present investigation finds that unskilled laborer's have

more psychiatric disorders, but the difference is not statistically significant. The result of the present study is consistent with that of previous studies.^{16,22} The reason for above findings could be the difficulty in performing their job adequately which in turn leads to unemployment. These patients may be lesser educated and would be having poor social skills and hence unable to get a better job. The present investigation finds that patients with lower per capita income have more psychiatric disorders, but this difference is not statistically significant. The results of the study are consistent with those of previous studies.^{16,22} The reason for the existing poor quality of life and poor living condition, would favor progression of the illness, resulting in disabling illness, which increases the frequency of the psychiatric disorders. The present investigation finds that the psychiatric morbidity is more common in patients from rural domicile and from nuclear family, but it is not statistically significant. The present investigator fails to find earlier studies with similar reports. The reason for the higher frequency could be that people with lower education and poor social skills might have not immigrated to the urban areas. The social isolation may be more in rural areas. Such social factors and inadequate treatment facilities may have worsened the psoriasis.

The results of the present investigation reveal that none of the socio demographic factors investigated have statistically significant relations to the psychiatric disorders in patients with psoriasis.

Psychiatric disorders and clinical variables

The present investigation finds that the psychiatric disorders are more in patients with plaque type of psoriasis. The result of the study is consistent with that of previous studies.^{16,23} One of the reasons for the increased frequency of the psychiatric disorders could be that majority of the patients have plaque type of psoriasis.

The present investigation finds that the psychiatric disorders are more common in patients with duration of psoriasis between 1-5 yrs.

The duration of the psoriasis is statistically significant with the psychiatric disorders. Earlier studies also report the similar findings.^{16,19} One of the reasons for this increased frequency could be the increased deformity associated with longer duration of psoriasis. Current investigation reveals that psychiatric disorders are more common in patients treated with steroids for longer duration. The duration of treatment is statistically significant with the psychiatric disorders. This finding is consistent with the previous study.¹⁶ In the present study 43% of the patients are on long term steroid medication. This could be one the factors for increased prevalence of psychiatric disorders in patients on long term treatment. The present investigation finds that psychiatric disorders is more common in patients with SESS category II.

However, there is no statistically significant relationship with SESS.

The results of the present investigation reveal that the psychiatric disorders in patients with psoriasis have statistically significant relationships with the duration of psoriasis and the duration of steroid treatment.

Nature of psychiatric symptoms

Patients with psoriasis have highly significant difference in reported, observed and total psychopathology on CPRS. Most common symptoms reported by the patients are sadness, inner tension, hostile feelings inability to feel, worrying over trifles, indecision, fatigability, lassitude, difficulty in concentration, disturbed sleep, aches and pain and decreased sexual interest. Most common observed symptoms are apparent sadness, hostility, distractibility, agitation and autonomic disturbances. Similar symptoms are reported in an earlier study.¹⁹⁻²¹ Previous studies have used self-reporting questionnaires to assess the psychopathology.¹⁹⁻²¹

Younger age (21-30 years) have higher scores which suggest that symptoms are more in younger age group. This may be attributed to the prevailing stress or may be due to the onset of major mental illness around this age group. Majority of the subjects reported of depressive and anxiety symptoms which do not qualify for a depressive disorder or an anxiety disorder as such. Socio demographic data do not reveal any significance while comparing with the psychopathology. The current investigation reveals that longer the duration of psoriasis, higher the psychopathology. There is statistical significance in association between duration of psoriasis and psychopathology. This can be attributed to the fact that depressive or anxiety symptoms may be reported in any chronic disease conditions. This finding is consistent with that of previous studies.^{17,20}

Limitations and merits of the study was the sample group chosen is probably not representative of the general population because they are selected from the patients who attend a private sector medical college. Recruitment of consecutive patients ensures that there is no sample bias. The inclusion and the exclusion criteria are specific. Hence the sample consists of homogenous group of patients with psoriasis who are otherwise not compromised. The size of the sample is sufficient to calculate the prevalence and the nature of the psychiatric disorders, but a larger sample size is required to calculate the exact relationship of psychiatric morbidity with socio-demographic and clinical variables. The present investigation is a descriptive cross-sectional clinical study examining the psychiatric disorders, psychiatric symptoms in patients with psoriasis. The subjects are assessed on one occasion only. The tools used have adequate established reliability and validity. All the tools are rater friendly, easy to administer, less time consuming thereby causing no discomfort to the patients. The

assessment is not blind due the constraints of the study, therefore rater bias is possible. The present investigator used a structured standardized clinical interview schedule for assessment of psychiatric disorders and to make psychiatric symptoms. Despite its limitations the present study indicates that the patient with psoriasis have high frequency of psychiatric disorders. Further research is required to draw definite conclusion. Further research should ideally address the following issues.

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Conflict of interest: None declared

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

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