

ORIGINAL RESEARCH

A Clinico-Epidemiological Study To Evaluate Psychiatric Disorders In Chronic Plaque Psoriasis

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Received: 17 March, 2024

Accepted: 18 April, 2024

ABSTRACT

Aim: The objective of the research was to ascertain the incidence rate of psychiatric disorders among individuals diagnosed with chronic plaque psoriasis.

Materials and Methods: The study incorporated an equivalent number of healthy controls and 50 patients diagnosed with psoriasis. A 61-item survey questionnaire called Skindex and the Self-Reporting Questionnaire 24 (SRQ24) were utilized to evaluate psychiatric morbidity in both groups.

Results : Psychiatric morbidity as measured by the SRQ was 63.1% in the study group and 19.5% in the control group. The observed difference exhibited statistical significance ($P < 0.001$). The association between psychiatric morbidity and guttate psoriasis was the strongest (100%), followed by plaque type (65.6%) and palmoplantar type (40.8%). Anger constituted the prevailing psychiatric morbidity among individuals diagnosed with psoriasis, as reported by Skindex, with a prevalence of 60%. Discomfort (54%), social dysfunction (54%), cognitive decline (52%), embarrassment (52%), physical restriction (50%), anxiety (50%), and depression (46%) followed suit. All parameters of the Skindex-observed psychiatric morbidity difference between the case and control groups were found to be statistically significant ($P < 0.0001$).

Conclusion: There is considerable psychiatric morbidity associated with psoriasis, and the magnitude of this co-morbidity surpasses previous estimates.

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INTRODUCTION

The epidermis serves as the barrier that separates the interior environment from the exterior. Therefore, the investigation of the mind-body connection is highly promising. The skin's response to stressors serves as a paradigmatic illustration. Physical and psychosocial stressors have been identified as contributing factors to the natural progression of a number of skin diseases.¹Psoriasis is a chronic, immune-mediated, multisystemic disorder that is noncontagious and for which there is a genetic predisposition.² It is a chronic disease with multiple etiologies and autoimmune pathogenesis, distinguished by plaques of varying diameters that are erythematous, dry, and circumscribed with silvery scaly deposits. Extensor surfaces of the extremities (e.g., knee), scalp, nails, pre-sacral, and umbilical regions are frequently targeted areas of predilection. Irritation, scorching,

and pruritus are typical manifestations. Plaque, guttate, pustular, erythrodermic, inverse, scalp, nail, and palmo-plantar psoriasis are all subtypes of psoriasis.³

Psoriasis impacts between 2% and 3% of the global population. Asia, on the other hand, has a prevalence of 0.4 to 0.7%, while the United States and Canada have the maximum prevalence at 4.6% to 4.7%.⁴ According to a number of studies conducted in India, the prevalence of psoriasis patients ranges from 0.8% to 5.6%. Males are twice as likely to have it as females. Patients with psoriasis typically manifest between the ages of three and four decades. The onset of psoriasis, however, can occur at any age between infancy and the eighth decade of life. Typically, there are two peaks in the age of onset between 20 and 30 years of age, and between 50 and 60 years of age.^{5,6} Several medical comorbidities, including obesity,

hypertension, obstructive sleep apnea, myocardial infarction, stroke, and other inflammatory disorders, are associated with psoriasis. A debilitating impact on quality of life (QoL) and mental health can result from psoriasis.⁷ The majority of patients diagnosed with moderate to severe psoriasis have a diminished quality of life and exhibit numerous notable comorbidities, in addition to having substantially elevated mortality rates.² Consequentially, a multitude of psychiatric comorbidities ensued, including but not limited to depression, anxiety, adjustment disorder, chronic stress, and compromised erotic and marital functioning. Suicidal ideation and other severe forms of psychiatric emergency were frequently reported among patients. It is a disease that deprives the afflicted of an equal opportunity for employment, resulting in economic limitations and a profoundly detrimental effect on health and quality of life. While fatalities are uncommon, the pervasive presence of psychiatric comorbidities induces an ongoing state of apprehension. Psoriatic lesions that are visible diminish the patient's sense of self-worth.³ In light of this context, the objective of the index study was to determine the incidence of psychiatric disorders among chronic plaque psoriasis patients.

MATERIALS AND METHODS

An institutional based case control study done in a Tertiary Care Hospital with 50 cases of psoriasis and a similar number of age (± 2 years) and sex matched control.

Inclusion criteria

1. Psoriasis is diagnosed by consultant dermatologist.

2. Age > 18 years.
3. Both sexes.
4. Informed consent.
5. Age and sex matched control.

Exclusion criteria

1. The patient should not have any other comorbid general medical illness.
2. In patient group psychiatric illness that starts before the onset of psoriasis, i.e., the psychiatric illness is not a result of psoriatic illness.
3. Patients who are unwilling to participate in the study.
4. The control group should be free from psoriasis.

The research employed the Self-Reporting Questionnaire-24 (SRQ-24) and the Skindex, a self-administered survey questionnaire consisting of 61 items designed to evaluate the quality of life of individuals with dermatological disorders across the eight scales mentioned earlier. The clinical profile has been ascertained. The data were obtained using a pre-designed case data document and subsequently subjected to analysis using suitable statistical software. As statistical tools, the chi-squared test, Fischer exact test, or Monte Carlo approximation were utilized.

RESULTS

About 50 patients of psoriasis and similar number of age (± 2 years) and sex matched healthy controls were chosen for the study from the patients attending the dermatology outpatient department in a tertiary care hospital.

Table 1: distribution of patients according to age and gender

	Cases (n=50)	Controls (n=46)
Age(mean)	20-66	22 - 65
	41.78 \pm 12.20	39.98 \pm 11.45
Gender	Male- 32	Male - 30
	Female- 18	Female - 16

Patients diagnosed with psoriasis varied in age from 20 to 66, with an average age of 41.78 \pm 12.20. Ages ranging from 22 to 65 were represented in the control group (n = 44), with a mean of 39.98 \pm 11.45. The case group consisted of 32 male cases and 18 female cases, while the control group comprised 30 male cases and 16 female cases.

Table 2: Details of psoriasis in the sample

Psoriasis	N	%
Plaque psoriasis	34	68
Palmoplantar psoriasis	8	16
Erythrodermic psoriasis	5	10
Guttate psoriasis	3	6

Plaque psoriasis afflicted the majority of study participants (68%), followed by palmoplantar psoriasis (14%), erythrodermic psoriasis (10%), and guttate psoriasis (6%).

Table 3: Comparison of the cases and controls in the eight dimensions of psychosocial and physical morbidity

Parameter	Cases (%)	Control (%)
Anger	30(60%)	5(10.8%)
Discomfort	27(54%)	4(8.6%)
Cognitive impairment	26(52%)	2(4.3%)
Physical limitations	25(50%)	2(4.3%)
Social problem	27(54%)	2(4.3%)
Depression	23(46%)	5(10.8%)
Fear	25(50%)	4(8.6%)
Embarrassment	26(52%)	4(8.6%)

Anger constituted the most prevalent psychiatric morbidity among individuals diagnosed with psoriasis, as reported by Skindex, with a prevalence of 60%. Discomfort (54%), social dysfunction (54%), cognitive decline (52%), embarrassment (52%), physical restriction (50%), dread (50%), and depression (46%) followed suit. In contrast, the control group exhibited the following psychiatric morbidities: cognitive impairment (4.3%), anger (10.8%), discomfort (8.6%), physical limitation (4.3%), social problem (4.3%), depression (10.8%), anxiety (8.6%), and embarrassment (8.6%). The psychiatric screener yielded affirmative results for 63.1% of patients in the study population and 19.5% of patients in the control group. The observed distinction exhibited statistical significance ($P < 0.0001$). 65.6% of patients diagnosed with plaque psoriasis were found to have positive psychiatric screening results. Palmoplantar and erythrodermic varieties had the lowest psychiatric morbidity rates (40.8%) among all types, while guttate had the highest prevalence of positive psychiatric screener results (100%).

DISCUSSION

Psoriasis is a chronic inflammatory disease that is determined genetically and is correlated with various co-morbidities, including cardiovascular disease, psychiatric disorders, and metabolic abnormalities.^{8,9} Individuals of all ages, including children, and both sexes are susceptible to developing psychiatric disorders.¹⁰ The screening instrument utilized in this research was the SRQ. In terms of psychiatric morbidity assessment, this 24-item questionnaire is analogous to the General Health Questionnaire (GHQ) 12 or 28. Although the GHQ is frequently employed in research, it lacks the capability to identify psychotic phenomena.¹¹ The quality-of-life of psoriasis patients was assessed using the SkinDex-61 questionnaire in this study. An eight-dimensional assessment is employed to evaluate the quality of life of individuals afflicted with dermatologic disorders. According to the findings of the current investigation, the average age of individuals diagnosed with psoriasis was 41.78 years, while the control group had an average age of 39.89 years. The case group consisted of 32 male cases and 18 female cases, while the control group comprised 30 male cases and 16

female cases. The relatively low representation of women in both categories may be attributed to the socio-cultural context of our nation. In this location, fewer women than men seek medical care; consequently, fewer women visit the hospital's outdoor clinic. The psychiatric morbidity assessed by the SRQ was found to be 63.1%, which was found to be higher than the 24.3% psychiatric morbidity assessed by the GHQ for outpatients with psoriasis as reported by Mattoo et al¹². In contrast, our research findings were consistent with those of Akay et al¹³, Bharath et al¹⁴ and Esposito et al¹⁵, who reported 58–62% of outpatients for all dermatological disorders, including psoriasis. The skindex dimensional values of all individuals with affirmative screener results are greater. Furthermore, these values exhibit a high degree of statistical significance. This outcome is exceedingly predictable. A positive SRQ result does not guarantee a favorable skin disease prognosis for the patient, given that psychiatric co-morbidity is associated with a lower quality of life.

In their pilot investigation on the psychiatric morbidity associated with psoriasis, Kumar et al¹⁶ found that 90% of patients with psoriasis suffered from depression. Han et al¹⁷ identified anxiety and depression as two significant psychiatric comorbidities. An examination of the psychiatric morbidities associated with psoriasis and pemphigus in comparison revealed that the most prevalent psychiatric conditions were depression and adjustment disorder.¹⁸ In the present study, anger is the most common psychiatric co-morbidities, followed by discomfort, social problem, fear, depression, etc. The psoriasis group exhibited a significantly higher prevalence of co-morbid psychiatric illness than the control group, as determined by the SRQ-24 screener. Likewise, this distinction was statistically significant ($P < 0.0001$). Psychiatric co-morbidity was found to be most prevalent in guttate psoriasis (100 percent), followed by erythrodermic and palmoplantar psoriasis, which were associated with the least amount of co-morbidity. As demonstrated by the skindex61, the severity of psoriasis was associated with substantially greater psychiatric comorbidity and a lower quality of life among psoriasis patients. There was statistical significance in this result. Psychiatric co-morbidity was not associated with age, duration of illness,

income, sex, presence of relapses, medication treatments, or any other clinical or demographical variable with the exception of hospitalization.

CONCLUSION

In conclusion, we note that our research confirmed, consistent with prior investigations, that dermatological conditions, particularly psoriasis, are associated with a significant level of psychiatric morbidity, which is even more extensive than previously believed. Various factors that may affect the prevalence of psychiatric morbidity in these disorders were investigated in this study, which uncovered some intriguing trends that undoubtedly pave the way for additional research in this area.

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