

EVALUATION OF DEPRESSION AND QUALITY OF LIFE IN PATIENTS WITH PSORIASIS

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Abstract:

Introduction: Psoriasis is a chronic inflammatory dermatological condition characterized by skin lesions covered with white or silver scales, with a strong genetic susceptibility, and complex autoimmune pathogenesis. Based on the lesion characteristics, psoriasis is mainly classified into two types; non-pustular psoriasis includes psoriasis vulgaris, guttate psoriasis, erythrodermic psoriasis, inverse psoriasis, and psoriatic arthritis, while pustular psoriasis includes Von Zumbusch psoriasis, impetigo herpetiformis, and acrodermatitis continua of Hallopeau.

Materials and Methods: This prospective observational study included patients treated at the Dermatology Department of Santhiram Medical College, Nandyal. Verbal and written informed consent was obtained from all study participants. The psoriasis area and severity index (PASI) was used to measure the severity of psoriasis. The PASI score ranges from 0 to 72 and is used to classify psoriasis as mild (1-5), moderate (6-12), severe (13-20), or very severe (>20). The patient health questionnaire (PHQ 9) was used to assess the severity of depression in patients with psoriasis.

Results: A total of 141 patients diagnosed with any type of psoriasis were screened, and 77 patients who met the eligibility criteria were included in the study. The study population comprised 45 men (58%) and 32 women (42%); the mean age was 49.59 ± 13.39 years (range 18-75 years), and most patients were 56-65 years old. All patients were diagnosed with psoriasis at least 6 months before the commencement of this study. Among the 77 patients, 66 (85.7%) had a diagnosis of plaque psoriasis, 7 (9.1%) had scalp psoriasis, 1 (1.3%) had guttate psoriasis, 1 (1.3%) had pustular psoriasis, and 1 (1.3%) had erythrodermic psoriasis. The mean age at the onset of psoriasis was 45.48 ± 13.53 years (range 11-74 years).

Conclusion: Depression is a common comorbidity in patients with psoriasis. The severity of depression was mild in 46.7% of patients and severe in 2.6%. In addition to the pathogenesis of the disease, depression was associated with sociodemographic factors such as age, marital status, educational status, and working status. Psoriasis had a moderate effect on the quality of life of most patients. The severity of psoriasis was positively correlated with both the severity of depression and poor quality of life.

Key Words: Psoriasis, Depression, scalp psoriasis, guttate psoriasis, pustular psoriasis.

INTRODUCTION

Psoriasis is a chronic inflammatory dermatological condition characterized by skin lesions covered with white or silver scales, with a strong genetic susceptibility, and complex autoimmune pathogenesis.¹ Based on the lesion characteristics, psoriasis is mainly classified into two types; non-pustular psoriasis includes psoriasis vulgaris, guttate psoriasis, erythrodermic psoriasis, inverse psoriasis, and psoriatic arthritis, while pustular psoriasis includes Von Zumbusch psoriasis, impetigo herpetiformis, and acrodermatitis continua of Hallopeau.²

As psoriasis is a disorder with visible skin changes, it results in physical, emotional, and social burdens on the patient. Patients with psoriasis often experience a significant decrease in their emotional wellbeing and social functioning, adversely affecting their quality of life.³ As a result, patients with psoriasis have a high prevalence of psychiatric morbidities, including sleep disorders, anxiety, and most commonly depression.⁴

However there are not many studies supporting the observation. Hence more prospective clinico-epidemiological studies using appropriate psychometric instrument for assessing quality of life are required for better understanding of disease burden of patients.⁵ Thus the purpose of this study was to evaluate the quality of life of patients with psoriasis, to verify whether there is a correlation between quality of life and clinical improvement, to assess psychology of patients, so as to provide early psychological intervention in adjunct to dermatological treatment for good outcomes. Additionally, data will be presented in relation between demographic and clinical variables and quality of life.⁶

MATERIALS AND METHODS

This prospective observational study included patients treated at the Dermatology Department of Santhiram Medical College, Nandyal. Verbal and written informed consent were obtained from all study participants.

Inclusion criteria: Patients aged between 18 and 85 years with a confirmed diagnosis of any type of psoriasis.

Exclusion criteria: (1) Current treatment with psychotropic drugs, (2) severe comorbidities or chronic diseases, (3) a diagnosis of any psychiatric illness before the diagnosis of psoriasis, and (4) visual, hearing, language, or cognitive deficits or impairments.

The psoriasis area and severity index (PASI) was used to measure the severity of psoriasis. The PASI score ranges from 0 to 72 and is used to classify psoriasis as mild (1-5), moderate (6-12), severe (13-20), or very severe (>20). The patient health questionnaire (PHQ 9) was used to assess the severity of depression in patients with psoriasis. The PHQ 9 is a self-administered questionnaire comprising nine elements to give a score ranging between 0 and 27; a score of 0 indicates no depression, while a score of 1-4 indicates minimal depression, 5-9 indicates mild depression, 10-14 indicates moderate depression, 15-19 indicates moderately severe depression, and 20-27 indicates severe depression.²³⁻²⁴ The dermatology life quality index (DLQI 10) was used to evaluate the quality of life. The DLQI score ranges between 0 and 30, with higher scores indicating a greater effect of the disease on quality of life.

Statistical analysis: All data collected through patient interviews and questionnaires were organized in a Microsoft Excel worksheet. All data were expressed as mean \pm standard deviation. The data analysis was conducted using Microsoft Excel 2019 and MedCalc statistical software, version 19.6.1. A *P* value < 0.05 was considered statistically significant.

RESULTS

A total of 141 patients diagnosed with any type of psoriasis were screened, and 77 patients who met the eligibility criteria were included in the study. The study population comprised 45 men (58%) and 32 women (42%); the mean age was 49.59 ± 13.39 years (range 18-75years), and most patients were 56-65 years old. All patients were diagnosed with psoriasis at least 6 months before the commencement of this study. Among the 77 patients, 66 (85.7%) had a diagnosis of plaque psoriasis, 7 (9.1%) had scalp psoriasis, 1 (1.3%) had guttate psoriasis, 1 (1.3%) had pustular psoriasis, and 1 (1.3%) had erythrodermic psoriasis. The mean age at the onset of psoriasis was 45.48 ± 13.53 years (range 11-74 years).

Parameter	Number of patients
Gender	
Male	45 (58%)
Female	32 (42%)
Age Groups	
18-25	5 (5.8%)
26-35	8 (11%)
36-45	16 (20.1%)
46-55	19 (24.7%)
56-65	23 (30.5%)
66-75	6 (7.8%)

Table 1: Gender-wise and Age-wise distribution of the study participants

Parameter	Number of patients
Disease type	
Plaque psoriasis	66 (85.7%)
Palmoplantar + Scalp psoriasis	6 (7.8%)
Chronic plaque psoriasis	33 (43.5%)
Palmoplantar psoriasis	20 (25.3%)
Plantar psoriasis	4 (5.2%)
Psoriasis vulgaris	3 (3.9%)
Erythrodermic psoriasis	1 (1.3%)
Guttate psoriasis	1 (1.3%)
Pustular psoriasis	2 (2.6%)
Scalp psoriasis	7 (9.1%)
Severity of psoriasis (PASI score)	
Mild (1-5)	28 (36.4%)
Moderate (6-12)	20 (25.9%)
Severe (13-20)	25 (32.5%)
Very severe (>20)	4 (5.2%)

Table 2: Distribution based on disease type and severity of psoriasis

Parameter	Number of patients
Severity of Depression	
No depression (0)	7(9.7%)
Minimal (1-4)	19 (24%)
Mild (5-9)	36 (46.7%)
Moderate (10-14)	10 (13.6%)
Moderately severe (15-19)	3 (3.2%)
Severe (20-27)	2 (2.6%)
Effect on quality of life	
None (0-1)	5 (6.5%)
Small (2-5)	12 (16.2%)
Moderate (6-10)	29 (37%)
Very large (11-20)	26 (33.8%)
Extremely large (21-30)	5 (6.5%)

Table 3: Distribution based on severity of depression (PHQ 9 score) and quality of life (DLQI 10 score)

Factor	Total (N)	Depressed, n (%)	P Value
Age groups (years)			
18-39 years	17	11 (65.7%)	0.028
40-59 years	36	23 (61.6%)	
>59 years	23	17 (73.9%)	
Gender			

Male	45	27 (61.1%)	0.42
Female	32	23 (73.4%)	
Marital status			
Married	66	42 (63.6%)	0.001
Single	11	9(81.8%)	
Severity of psoriasis			
Mild	28	15 (53.6%)	0.001
Moderate	20	14 (67.5%)	
Severe	25	19 (76%)	
Very severe	4	3 (87.5%)	
Duration of disease			
≤1 years	19	15 (74%)	0.001
1-5 years	37	23 (62.2%)	
5-10 years	15	10 (67%)	
>10 years	5	3 (60%)	

Table 4: Socio-demographic factors associated with likelihood of depression.

To assess the factors associated with depression, the sociodemographic variables of patients with depression (mild and above) were compared with those without depression using the chi-squared test. Of the 77 patients, 51 (66.2%) were classified as having depression. The variables that significantly differed between patients with versus without depression were age, marital status, educational status, working status, and severity of psoriasis. In the older-aged group (>59 years old), 17 of 23 patients (73.9%) had depression. Depression was most prevalent in single/widowed patients (81.8%), uneducated patients (69.4%), daily wage earners (68.7%), and patients with severe and very severe forms of psoriasis (76% and 87.5%, respectively). The duration of disease (duration from the date of diagnosis to the date of study commencement) also affected the likelihood of depression. Patients who were recently diagnosed were more likely to have depression; 74.4% of patients with a recent diagnosis of psoriasis had depression, while 60% of patients who had been living with psoriasis for more than 10 years had depression.

DISCUSSION

This study established the relationship between psoriasis and depression. Plaque psoriasis was the most common type of psoriasis (85.7%), while the other types each comprised <2%. These findings are consistent with the literature that states that plaque psoriasis is the most frequently seen clinical form of psoriasis, constituting nearly 90% of all cases.⁷

A recent study stated that psoriasis has two peaks of onset, with the first peak occurring at the age of 20-30 years and the second peak at 50-60 years. In our study, the highest peak of onset occurred in the 40-49-year age group. This variation may be due to late diagnosis because of a low level of education, high level of poverty, and financial constraints. Data from various studies provide strong evidence for the validity of the PHQ 9 as a measure of the severity of depression.⁸

Our analysis of the PHQ 9 scores complements the increasing use of the PHQ 9 as a measure of the severity of depression. At least 66% of the present study population had mild to severe symptoms of depression. Apart from the pathology of the disease, certain sociodemographic factors were found to be associated with depression. In the present study, young adults and older-aged patients with psoriasis tended to have a higher prevalence of depression than middle-aged patients, although this difference failed to achieve statistical significance ($P = 0.028$).⁹

In addition, uneducated patients and patients whose earnings were based on daily wages were more likely to have depression compared with educated patients and patients who had a constant inflow of money through a regular job or business. The prevalence of depression was also higher in women than men, particularly for students and working women; a lack of knowledge about the disease and social stigma may add to the likelihood of depression in women who need to leave their homes on a regular basis.¹⁰

The health-related quality of life assessed with the DLQI 10 showed that the presence of psoriasis and psoriatic lesions affected the quality of life of most patients. Moreover, poor health-related quality of life was most frequently observed in psoriatic patients with scalp involvement.

CONCLUSION

Depression is a common comorbidity in patients with psoriasis. The severity of depression was mild in 46.7% of patients and severe in 2.6%. In addition to the pathogenesis of the disease, depression was associated with sociodemographic factors such as age, marital status, educational status, and working status. Psoriasis had a moderate effect on the quality of life of most patients. The severity of psoriasis was positively correlated with both the severity of depression and poor quality of life.

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