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FREQUENCY OF NEUROPSYCHIATRIC ILLNESS OF PSORIASIS

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Abstract

Objective:

To determine the frequency of different neuropsychiatric illnesses in patients of psoriasis.

Material and Methods:

Psoriasis and psychological disturbances are linked together like other mental disorders, particularly depression and anxiety. The psoriasis patients (n=48) visiting the dermatology outpatient department of a tertiary care hospital, Quetta over a year were selected for the study.

Result:

Plaque psoriasis (n=33; 68.7%) was the most common type of psoriasis among the participants, followed by palmoplantar psoriasis (n=7; 14.4%), erythrodermic psoriasis (n=5; 10.4%) and guttate (n=3; 6%) psoriasis. Males (n=31; 64.58%) were more likely to be affected by psoriasis than females (n=17; 35.41%). Psychiatric screeners were positive in 62.5% of patients in the study and negative in 37.5%. The results showed that 21 (63.6%) of the plaque psoriasis individuals had positive results, while palmoplantar (n=3; 42.8%) and erythrodermic (n=3; 60%) had the lowest psychiatric morbidity. The guttate had the highest prevalence of psychiatric screener positivity (n=3; 100%). According to the skindex, the commonest psychiatric morbidity in psoriasis patients was fear (68.75%), followed by embarrassment (66.66%), depression (64.58%), anger (62.5%), social problem (60.41%), discomfort (58.33%), cognitive impairment (47.91%) and physical limitation (41.66%).

Conclusion:

The study highlights plaque psoriasis as the most prevalent type, with males more affected than females. Psychiatric screeners revealed substantial positivity, particularly in guttate psoriasis. Skindex analysis showcased prevalent psychological morbidities, notably fear and embarrassment. This underscores the need for holistic management, recognizing the profound impact of psoriasis on mental well-being alongside dermatological symptoms. Integrating psychiatric care into treatment strategies is vital for improving the quality of life for patients grappling with the psychosocial burdens of psoriasis.

Keywords: Neuropsychiatric, Illness, Psoriasis, Psychosocial, Morbidity

INTRODUCTION

The epidermis serves as a barrier between the internal and external environments. The mind-to-body connection is a subject that is therefore suitable for investigation (Barankin & DeKoven 2002). An illustration of this is how worry affects the skin: The natural history of several skin diseases has been related to both physical agents and psycho-social stressors. Wittkower was the first scientist who start investigating the link between psoriasis and psychiatric stress in 1946 (Langley et al., 2005). Different stress factors such as psychological stress and social environment can cause or worsen many inflammatory dermatoses such as psoriasis (Akay et al., 2005), and are referred to as psycho-physiological skin diseases (American Psychiatric Association, 2013). There is an embryological as well as biochemical connection between the brain and the skin that helps to elaborate the psychopathology of people with high incidence of chronic skin conditions like psoriasis (Basavaraj et al., 2013).

About 2% of people globally are affected by psoriasis, a chronic inflammatory skin disease with profound psychosocial consequences and social stigma (Bharath et al., 1997). It is a psycho-physiological skin disease that has several co-occurring psychiatric conditions. Numerous significant psychiatric conditions are more frequently present in psoriasis patients than would be anticipated (Roque Ferreira et al., 2017). Psoriasis and psychological stress are quite related to some mental disorders, particularly depression and anxiety (Boehncke & Boehncke 2014). Clinical experience has demonstrated that these individuals also have a wide range of significant mental disorders. However, various psychopathological and mental disorders have not been investigated in patients having psoriasis (Chen & Lyga 2014). The psychiatric morbidity in psoriasis is often a more important indicator of the disability experienced by the patient than the dermatologic aspects of the disorder (Dediol et al., 2009).

There are etiopathogenic nuances in the relationship between psychiatric co-morbidities and psoriasis that help us explore the control and management of the condition (Gaikwad et al., 2006). The aim of the current study was to highlight the psychiatric co-morbidities linked to psoriasis as well as potential etiopathogenic mechanisms to account for this relationship (Sampogna, 2004).

MATERIALS AND METHODS

Study design and data source

A cross-sectional study design was used to analyze the frequency of neuropsychiatric illness in patients with psoriasis. The study was approved by the College of Physicians and Surgeons of Pakistan.

Inclusion and exclusion of the patients

Psoriasis was diagnosed by a consultant dermatologist in patients older than 18 years of age, of both sexes. All the patients were informed and written consent was taken from them for their inclusion in the study. A similar number of healthy persons of about the same age (±2 years) and sex as that of psoriasis patients were selected for the study to compare the data of patients with healthy controls. All the persons involved in the study were well-informed and educated regarding all aspects and outcomes of the study.

Exclusion criteria

The patients were not included in the study if they have any other comorbid general medical illness and a patient that has a psychiatric illness that starts before the onset of psoriasis i.e. the psychiatric illness is not a result of psoriatic illness. Similarly, if a patient is not willing to participate, was not included in the study. The persons in the control group were free from psoriasis.

Statistical analysis

To account for known factors that might affect the association between AD and each mental illness, multiple logistic regression models were developed for each mental illness. Statistical significance was defined as a p-value < 0.05. SAS version 9.2 and IBM SPSS Statistics version 21 (SAS Institute, Cary, NC, USA) were used for data analysis.

RESULTS

About 48 patients of psoriasis were chosen for the study from the patients attending the dermatology outpatient department in a tertiary care hospital in Quetta City. The patients included in the study were suffering from plaque psoriasis 33 (68.7%) followed by palmoplantar psoriasis = 7 (14.4%), erythrodermic psoriasis = 5 (10.4%) and guttate psoriasis = 3 (6%) (Figure 1).

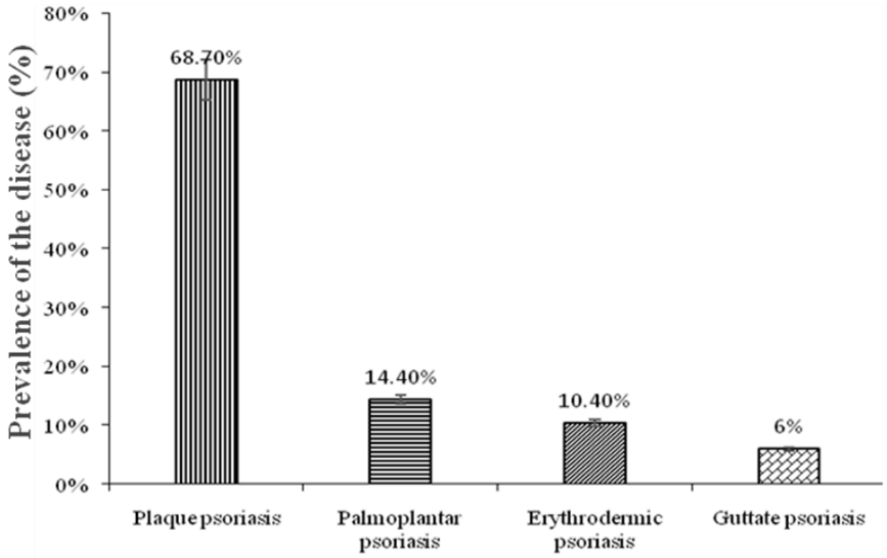

Figure 1. Overall percentage of different types of psoriasis in the Balochistan population.

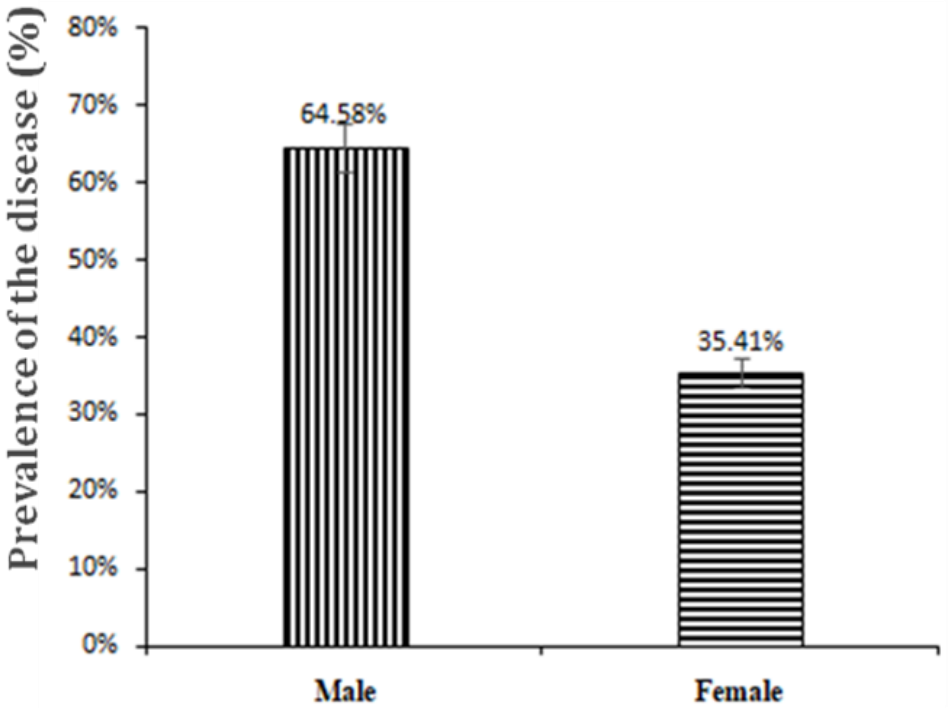

Figure 2. Gender-wise distribution of psoriasis in Balochistan.

The results showed that males were more affected with psoriasis (n=31; 64.58%) as compared to females (n=17; 35.41%) (Figure 2). In the study population, the psychiatric screener was positive in 62.5% of patients while negative in 37.5% (Figure 3).

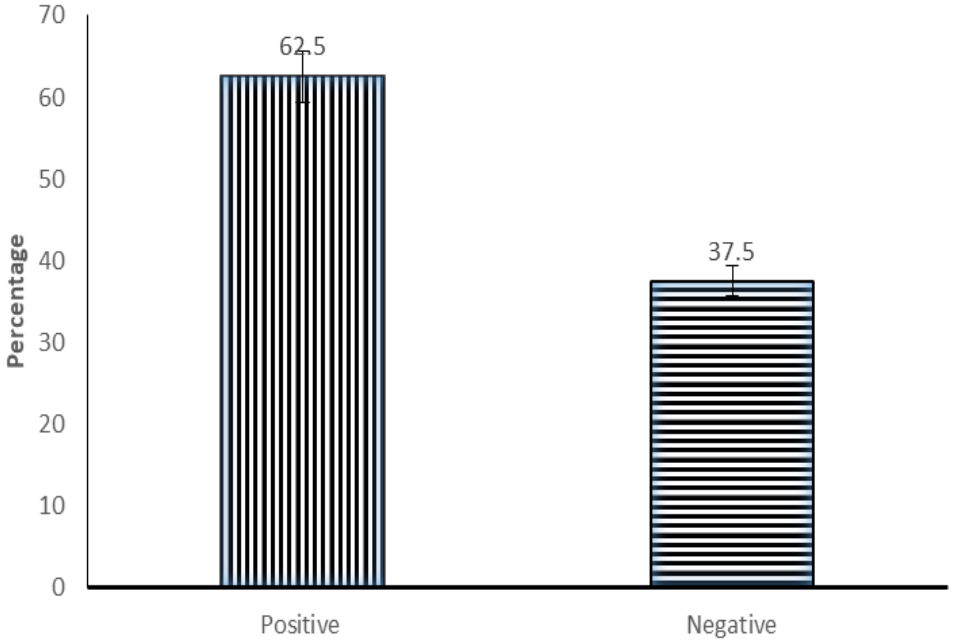

Figure 3. Overall psychiatric screener of the Balochistan population.

It was observed that 21 (63.6%) of plaque psoriasis patients had positive psychiatric screener results, while palmoplantar variety (n=3; 42.8%) and erythrodermic variety (n=3; 60%) had got lowest psychiatric morbidity. While guttate had the highest prevalence of psychiatric screener positivity (n=3; 100%) (Figure 4). According to skindex, the commonest psychiatric morbidity in psoriasis patients was fear (68.75%) followed by embarrassment (66.66%), depression (64.58%), anger (62.5%), social problem (60.41%), discomfort (58.33%), cognitive impairment (47.91%) and physical limitation (41.66%) as shown in Table 1.

Table-1: Eight dimensions of psychosocial and physical morbidity in psoriasis patients

Parameters	Positive (%)	Negative (%)	p-value
Fear	33 (68.75)	15 (31.25)	<0.0001
Embarrassment	32 (66.66)	16 (33.33)	<0.0001
Depression	31 (64.58)	17 (35.41)	<0.0001
Anger	30 (62.5)	18 (37.5)	<0.0001
Social problem	29 (60.41)	19 (39.58)	<0.0001
Discomfort	28 (58.33)	20 (41.66)	<0.0001
Cognitive impairment	23 (47.91)	25 (52.08)	<0.0001
Physical limitation	20 (41.66)	28 (58.33)	<0.0001

DISCUSSION

Psoriasis is a genetically determined chronic inflammatory disease that is associated with different co-morbidities like metabolic abnormalities, cardiovascular disease, and psychiatric ailments (Paraskevi et al., 2020). People of all ages including the pediatric population (Han et al., 2011) and both sexes are prone to developing psychiatric problems (Joy et al., 2023). Plaque psoriasis was present in 33 (68.7%) patients and was the most common type of psoriasis among the participants of the study, followed by palmoplantar psoriasis (n=7; 14.4%), erythrodermic psoriasis (n=5; 10.4%) and guttate psoriasis (n=3; 6%). According to the gender-specific results, men (n=31; 64.58%) were more likely to have psoriasis than women (n=17; 35.41%). Psychiatric screeners were positive in

62.5% of patients in the study group and negative in 37.5% of people. The results of the psychiatric screener showed that 21 (63.6%) of the plaque psoriasis individuals had positive results while palmoplantar (n=3; 42.8%) and erythrodermic (n=3; 60%) had got lowest psychiatric morbidity. The guttate had the highest prevalence of psychiatric screener positivity (n=3; 100%). Our finding was similar to previously reported studies, wherein the authors reported that cardiovascular diseases, lymphoma, and anxiety or depression are associated with psoriasis (Charlotte & Armstrog, 2020). According to the skindex, the commonest psychiatric morbidity in psoriasis patients was fear (68.75%), followed by embarrassment (66.66%), depression (64.58%), anger (62.5%), social problem (60.41%), discomfort (58.33%), cognitive impairment (47.91%) and physical limitation (41.66%). Previously, it was reported that anger is the most common psychiatric morbidity in psoriasis patients, followed by discomfort, social problems, cognitive impairment, embarrassment, physical limitation, fear, and depression (Dediol et al., 2009; Jin et al., 2021).

Psychiatric comorbidities in psoriasis are also associated with the severity and progression of the dis ease. Stress and anxiety are associated with more severe psoriasis symptoms and can cause or worsen the condition (Ferreira et al., 2016: Chang et al., 2022). Bacterial infections caused by chronic stress can also cause psoriasis (Burkauskas et al., 2023). Hence, it is quite important to detect and solve psychological problems in terms of controlling the disease process. The only limitation of our study was that the cross-sectional design limits the ability to establish a positive association between psoriasis and mental health. Moreover, the small sample size and the patients selected from a single center might also affect the findings of the general population.

A multidisciplinary approach combining psychological assessment and appropriate interventions is essential to improve the overall health and quality of life of psoriasis patients.

The findings of this study contribute to the understanding of the psychological effects of psoriasis and suggest an integrated approach to patient care. The current study highlights the importance of psychological comorbidities in psoriasis patients. Fear, shame, depression, and other difficulties are common among affected individuals highlighting the importance of addres sing the physical and emotional aspects of the problem.

One limitation of the study is its relatively small sample size, which may affect the generalizability of the findings to a broader population of psoriasis patients. Additionally, the study's cross-sectional design limits the ability to establish causality or assess changes over time. Furthermore, reliance on self-reported measures for psychiatric morbidity and subjective assessment tools like the skindex may introduce response bias and affect the accuracy of results. Lastly, the study's focus on a single geographic region or healthcare setting may limit the applicability of findings to diverse populations or clinical contexts.

CONCLUSION

The findings of this study provide valuable insights into the prevalence and distribution of different types of psoriasis among the participants. Plaque psoriasis emerged as the most common type, followed by palmoplantar, erythrodermic, and guttate psoriasis. Furthermore, the study highlights a higher likelihood of psoriasis affecting males compared to females.

An intriguing aspect of the research is the association between psoriasis and psychiatric morbidity, with a significant proportion of patients screening positive on psychiatric screeners. Interestingly, while plaque psoriasis showed the highest overall prevalence of psychiatric morbidity, palmoplantar and erythrodermic psoriasis exhibited relatively lower rates. Conversely, guttate psoriasis demonstrated the highest prevalence of psychiatric screener positivity, indicating a potential link between this particular psoriasis subtype and psychological distress. The skindex analysis sheds further light on the specific psychiatric morbidities experienced by psoriasis patients, with fear and embarrassment ranking as the most prevalent. Depression, anger, social problems, discomfort, cognitive impairment, and physical limitation were also reported, underscoring the multifaceted impact of psoriasis on individuals' mental well-being. In conclusion, these findings underscore the importance of considering both the physical and psychological aspects of psoriasis in patient care.

Addressing psychiatric morbidity alongside dermatological symptoms is crucial for comprehensive management and improving the overall quality of life for individuals living with psoriasis.

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