

Original Research Article

A study of skin manifestations in patients with psychiatric disorders

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ABSTRACT

Background: The interaction between psychological factors and skin diseases has long been hypothesized. Considerations of psychiatry and psychosocial factors are important for better management of dermatological disorders as coexistence of psychiatric and dermatological disorders are mostly seen. The aim of the study was to identify skin manifestations in individuals suffering from psychiatric disorders.

Methods: A total of 100 patients attending dermatology OPD were screened for history of any psychiatric illness and patients with a positive history of psychiatric illness were recruited into study. The skin lesions were categorised as per the classification of psychodermatology and results were analysed accordingly.

Results: The patients recruited belonged to age groups ranging from 12 to 70 with a higher female to male ratio (54% females and 46% males). The psychophysiological disorders constituted 29 %, among them chronic urticaria (34.4%) followed by psoriasis (27.58%) constituted the majority. 18% had primary psychiatric disorders, of which pruritis (61.1%) and delusions of parasitosis (22.2%) were commonly observed. Secondary psychiatric disorders constituted 21%, among them vitiligo comprised (33.33%), and acne (28.57%).

Conclusions: The study shows a positive association of skin diseases with psychiatric illnesses. Dermatologists should be able to treat the patients holistically, and must know the ideal time to refer the patients to psychiatrists for better management.

Keywords: Psychodermatology, Skin manifestations, Psychocutaneous disorders

INTRODUCTION

Skin is the largest organ that has primary function in tactile receptivity and reacts directly upon emotional stimuli.¹ The relationship between skin and brain exists due to the fact that both have same ectodermal origin and are affected by same hormones and neurotransmitters.¹ Psychodermatology describes an interaction between psychiatry, dermatology and psychology.²

The interaction between psychological factors and skin diseases has long been hypothesized. There is a concept called neuro-immuno-cutaneous system (NICS) which means narrow interrelations between nervous system, immunity and skin. Indeed, there are numerous cellular contacts between nerve fibres, cutaneous cells and immune cells, which have been identified by confocal or electron microscopy.³

It has been reported that psychological stress acts as a precipitant for some chronic intractable dermatological conditions such as eczema, psoriasis, prurigo.⁴⁻⁷

There is scarcity of data regarding skin manifestations in psychiatric disorders. In patients with chronic skin conditions, psychological intervention is compulsory to minimize skin disorders.⁸ This study has been taken so that it helps in better management of patients with combined approach by both dermatologists and psychiatrists.

Aims and objectives

The main aim of this study is to identify skin manifestations in individuals suffering from psychiatric disorders.

METHODS

All patients attending dermatology OPD of Dr. Pinnamaneni Siddhartha Institute of Medical Sciences & Research Foundation were screened for history of any psychiatric illness and patients with a positive history of psychiatric illness were recruited into study after taking informed consent.

The sample size is 100 taken over a period of 3 months from July-October 2016. A thorough history was taken, detailed clinical evaluation was done and various skin manifestations were noted. Relevant investigations like skin biopsy and scrapings were done wherever needed. Underlying psychiatric disorders were noted with the help of psychiatrists.

The skin lesions were categorised as per the classification of psychodermatology and results were tabulated and analysed accordingly.

Inclusion criteria

Inclusion criteria were patients with psychiatric illnesses, belonging to all age groups; both male and female patients included in the study.

Exclusion criteria

Pregnant women and patients in postpartum period were excluded.

RESULTS

A total of 100 patients were recruited into the study and results are tabulated as follows. The age distribution of the patients is shown in Table 1.

The study patients belonged to age groups ranging from 12 to 70, with majority (22%) in the age group of 21-30 years. The gender distribution of the patients is shown in

Table 2, with a higher female to male ratio (54% females and 46% males).

Table 1: Age distribution of patients.

Age (in years)	Number of patients
10-20	11
21-30	22
31-40	16
41-50	17
51-60	21
61-70	13

Table 2: Sex distribution of patients.

Sex	Number of patients
Females	54
Males	46

Table 3: Psychodermatological classification.

Psychophysiological	29%
Primary psychiatric disorders	18%
Secondary psychiatric disorders	21%

The skin lesions observed were categorised into 3 groups according to classification of psychodermatology. The percentage of patients in each group is shown in Table 3. 29% had psychophysiological illness, secondary psychiatric disorders were observed in 21%, and 18% had primary psychiatric conditions.

32% of the individuals had skin diseases which were not directly related to the psychiatric illness but were associated with significant findings. These included infections (19%) like tinea corporis, scabies, candidal intertrigo, warts, herpes simplex, furunculosis, erythrasma. Non-infectious lesions like seborrheic keratosis, skin tags, papular urticaria, miliaria, pellagra, pityriasis rosea, xerosis, senile comedones were observed in 13% of patients.

Table 4: Psychophysiological disorders.

Skin diseases	Number of patients	Percentage (%)
Chronic urticaria	10	34.4
Psoriasis	8	27.58
Alopecia areata	5	17.24
Hyperhidrosis	2	6.8
Lichen simplex chronicus	2	6.8
Atopic dermatitis	1	3.4
Pompholyx	1	3.4

Each group is further classified and the percentage of patients in individual groups is tabulated in Tables 4-6. Among the psychophysiological illnesses, chronic

urticaria constituted 34.4% and psoriasis 27.5% (Table 4).

Table 5: Skin lesions in primary psychiatric disorders.

Skin disease	Number of patients	Percentage (%)
Pruritis	11	61.1
Delusions of parasitosis	4	22.2
Trichotillomania	1	5.55
Neurotic excoriations	1	5.55
Dermatitis artefacta	1	5.55

Table 6: Secondary psychiatric disorders.

Skin disease	Number	Percentage (%)
Vitiligo	7	33.33
Acne scars	6	28.57
Alopecias	4	19.04
Facial melanosis	3	14.28
Leprosy	1	4.76

Pruritus (61.1%) followed by delusions of parasitosis (22.2%) were the major skin manifestations in patients with primary psychiatric disorders (Table 5). Vitiligo (33.3%) and acne scars (28.5%) accounted for majority of the secondary psychiatric disorders (Table 6).

DISCUSSION

The present study had evaluated the major psychocutaneous disorders that are encountered regularly in the OPD. The incidence of psychiatric disorders among dermatology patients is estimated to be 30-60%.⁹ The most often diagnosed psychiatric disturbances are mood disorders, depression, anxiety disorders, obsessive and delusional disorders. Psychodermatology is divided into three categories according to relationship between skin diseases and mental disorders.¹

- Psychophysiologic (psychosomatic) disorders caused by skin diseases triggering different emotional states (stress), but not directly combined with mental disorders (psoriasis, eczema).
- Primary psychiatric disorders responsible for self-induced skin disorders (trichotillomania).
- Secondary psychiatric disorders caused by disfiguring skin (ichthyosis, acne conglobate, vitiligo), which can lead to states of fear, depression or suicidal thoughts.

In our study 18% had skin lesions which were directly related to primary psychiatric illnesses out of which pruritus constituted 61% and delusions of parasitosis accounted for 22.2%. Psychogenic pruritus has been noted in patients with depression, anxiety, aggression, obsessional behaviour and alcoholism.¹ 54.4% of pruritus

patients in our study had underlying moderate depression and dysthymia. The other psychiatric illnesses observed in these patients were generalised anxiety (18%), bipolar affective disorder and alcohol dependence (18% each).

Delusions of parasitosis had a prevalence of 4% in this study. Hebbert et al reported a frequency of 0.5% in their study.¹⁰ Patients with this condition have a false belief that they are infested by parasites or organisms. Khalifa et al reported a frequency of 6% of this condition in their study of psychocutaneous disorders.¹¹ Trichotillomania and neurotic excoriations constituted 5.5% each of skin lesions of primary psychiatric illness. These patients had an underlying obsessive compulsive disorder. Dermatitis artefacta (5.5%) is a factitious dermatitis caused entirely by the actions of the fully aware patient on the skin, hair, nail or mucosa with no rational motive for this behaviour. Patient was a known schizophrenic.

32% of patients with psychiatric illness had associated skin diseases like infections (59.6%) and non-infectious conditions (31.4%). Among infections tinea corporis and scabies were common presentations. Patients basically had underlying major psychiatric illness like Schizophrenia and depression, due to which proper personal hygiene could not be maintained thereby leading to infections. Patients with OCD had irresistible urge to repeatedly wash their hands and feet thereby leading to xerosis and irritant dermatitis, and infections like candida intertrigo.

Skin lesions associated with secondary psychiatric illness constituted 21%. Of which vitiligo (33.3%), alopecia (19.04%) acne scars (28.57%) and facial melanosis (14.28%) were common conditions associated. Mattoo et al found 25% of vitiligo patients to have psychiatric comorbidity.¹² Depressive disorder (42%), generalised anxiety disorder (28.57%) and social phobia (28.5%) were most common psychiatric disorders associated with vitiligo in our study which was mainly due to cosmetic disfigurement and stigma associated with it.

33.3% of patients with acne had dysthymia and other psychiatric disorders. They developed generalised anxiety disorder (50%) and social phobia (16.7%). Acne has demonstrable association with depression and anxiety. Psychiatric comorbidity of acne excoricee included body image disorder, depression, anxiety, obsessive compulsive disorder (OCD), delusional disorders, personality disorders and social phobias.

Skin problems, especially chronic skin diseases, affecting exposed body parts because of the visibility and resultant disfigurement lead to embarrassment, depression, anxiety, poor self-image, low self-esteem, and suicidal ideation in the patients.¹³ Also, patients have to commonly face social isolation and discrimination and, at times, have difficulty getting jobs. Many patients are able to cope up with the disease while few develop secondary psychiatric morbidity.

When skin patients were screened for depression, the prevalence of major depressive disorder was found to be 8.4%. The study by Gupta and Gupta showed the prevalence of suicidal ideation as 5.5% and 5.6% in severe psoriasis and acne patients, respectively.¹⁴ Alcohol abuse is more common in psoriasis patients and the amount of daily intake correlates with the severity of psoriasis and its poor response to treatment.

In another study, General Health Questionnaire (GHQ) assessed psychiatric morbidity rates at 33.63% and 24.7% for vitiligo and psoriasis, respectively.¹⁵ Adjustment disorder (56% vs. 62%), depressive episode (22% vs 29%), and dysthymia (9% vs 4%) were the most common psychiatric disorders in vitiligo and psoriasis patients, respectively.

Psychophysiological disorders are those in which the course of a given skin disease is affected by the psychological state of a patient. These disorders are often precipitated or exacerbated by emotional stress and/or anxiety in a significant number of diseases like psoriasis, alopecia areata, rosacea, urticaria, pompholyx etc.

Chronic urticaria constituted for 33% of psychophysiological diseases out of which moderate depression (50%), dysthymia (30%), anxiety disorder (20%) had been developed secondary to skin disease. Severe emotional stress may exacerbate pre-existing urticaria. Patients with this disorder may have symptoms of depression and anxiety and severity of pruritis appears to increase as severity of depression increases.

Stress has been reported to trigger psoriasis. Psoriasis is associated with a variety of psychological difficulties, including poor self-esteem, sexual dysfunction, anxiety, depression and suicidal ideation. 27.58% cases in this study had psoriasis where stress aggravated the disease and patients had associated depression and anxiety.

Lichen simplex chronicus is one of the dermatoses aggravated or perpetuated by self-induced trauma with a reported incidence of 11.4%. In our study it figures to 6.6%.

CONCLUSION

The study which we have taken up shows a positive association of skin diseases with psychiatric illnesses and hence dermatologists should be able to identify the primary psychiatric disorders with skin lesions, and assess the chronic dermatoses and triggers like stress which may lead to psychiatric illnesses and aggravate skin conditions. These patients should be treated holistically with the help of a psychiatrist and psychologist. Dermatologists should be able to counsel and initiate basic pharmacologic treatment and must know the ideal time to refer the patients to psychiatrists for the better management of patients.

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