Psychodermatology: The Overlap of Skin and Psyche

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Abstract
Skin, brain and mind are interlinked and dermatological disorders are affected by as well as affect the psychological state of a person. The psychiatric morbidities such as anxiety, depression are common in skin conditions and the quality of life, especially psychological quality of life is adversely affected in psycho dermatological disorders. This article reviews the psychological impact of dermatological disorders and calls for close liaison between dermatology and psychiatry for favourable outcomes of these disorders.

Keywords: Psychodermatology; Psychocutaneous disorders; Psychosomatics

Introduction
Skin is the largest organ of human body; it expresses human emotion in its own unique way such as blushing, piloerection and perspiration. The skin as well as brain originate itself from embryonic ectoderm and responds to same hormones and neurotransmitters [1]. Skin is the also the most visible organ and everything that affects the skin is visible to others as well as to the patient himself forming an important part of one’s self-image. In addition to the unpleasant physical sensations that take the person off balance, creating discomfort, irritation, impatience and damage to the physical appearance, skin disorders also compromise the individual’s self-image and self-esteem. The psychological impact of dermatological disorders can be devastating to the patients, even though it may not be always associated with physical discomfort or pain [2].

Discussion
The incidence of psychiatric disorders among dermatological patients is estimated around 30 to 60% [3] and patients of chronic dermatological patients experience significant emotional pain [4]. The interaction between nervous system, skin and immunity has been explained by release of mediators from NICS (neuro immuno-cutaneous system) [5]. Psychological stress is believed to disrupt the epidermal permeability barrier homeostasis, and it may act as a precipitant for some inflammatory skin disorders like atopic dermatitis and psoriasis [6]. The psychological factors can be big concern in chronic intractable disorders eczema, prurigo, psoriasis and vitiligo [7-9]. The psychiatric help seeking behaviour in dermatological patients however is not in proportion to the psychiatric morbidity in these patients and patient often resist the psychiatric referrals due to widespread stigma and misconceptions about psychiatric diagnoses. Therefore the liaison between psychiatrists and dermatologist proves very helpful for optimum management of psychodermatological disorders with emphasis on biopsychosocial model of disorders.

Psychodermatology refers to the psychological or psychiatric aspects associated with dermatological disorders. These disorders can be classified into four categories namely:

A. Psychophysiological disorders, dermatological conditions associated closely and exacerbated by stress.
B. Primary psychiatric disorders with dermatological symptoms due to pathological thinking process.
C. Secondary psychiatric conditions as response to stress of dermatological condition.
D. Cutaneous sensory disorder presenting as sensory conditions with no underlying dermatological or general medical condition [10].

We in this review endeavour to focus on the psychiatric morbidity in dermatological disorders, which would cover psychophysiological disorders and psychiatric disorders secondary to dermatological conditions.

Psoriasis
Psoriasis is a chronic skin disease that affects approximately 2-3% of world population, with its onset in the second or third
decade of life. This disorder fits the biopsychosocial model of etiology and is caused by the interaction of genetic (polygenic inheritance), environmental and psychological factors [11]. Psychological stress is known to exacerbate the condition and commonly associated with depression, anxiety and somatization [12-15]. Suicidal ideations are not uncommon to be reported in patients of psoriasis and it is associated with significant impairment of quality of life, negatively impacting psychological, vocational, social and physical functioning [15,16]. Five dimensions of the stigma associated with psoriasis have been reported:

A. Anticipation of rejection.
B. Feelings of being flawed.
C. Sensitivity to the attitudes of society.
D. Guilt and shame.
E. Secretiveness [17].

However, the severity of psychiatric symptoms may not be always proportional to the clinical severity of psoriasis.

**Atopic Dermatitis**

Atopic dermatitis is a chronic skin condition with pruritus, scaling, erythema, excoriation and lichenification making it very distressing for the patients. Adults with atopic dermatitis are more anxious and depressed with psychosocial adjustment issue and low self esteem whereas children suffer emotional distress and more behavioural problems [18-21]. Psychological stress may be an acquired factor affecting the expression of atopic dermatitis [22]. A topic individuals with emotional problems may develop a vicious cycle between anxiety/depression and dermatologic symptoms [23].

**Acne Vulgaris**

Acne is an inflammation of the pilosebaceous glands mostly affecting face and trunk affecting mostly adolescents. It has a great importance among the dermatoses that affect adolescents, in view of its high prevalence in this age group and its effect on the quality of life which becomes more pronounced as the stage of the disease becomes more severe [24]. It is associated with depression and severe cases are more likely to have severe depressive features [25]. Apart from it the drug isotretinoin has side effects in the form of depression and suicidal ideas which needs to be kept in mind while treating patients of acne.

**Alopecia Areata**

Alopecia areata is a common disease involving localized loss of hair in round or oval areas, without visible inflammation of the skin in hair-bearing areas. The role of psychological factors in the pathogenesis of alopecia areata is debatable [26]. The psychiatric morbidity in patients of alopecia areata ranges from 25-67% [27-29]. Anxiety and depression remain the commonest comorbid psychiatric disorders in these patients [30,31]. The quality of life is poorer in patients of alopecia areata when compared to control but it does not depend on severity of the illness [32].

**Urticaria**

Chronic idiopathic urticaria (CIU) is characterized by recurrent urticarial wheals of unknown origin for 6 or more weeks’ duration. It is one of the most common and frustrating diseases for both patients and physicians [33,34]. The quality of life of these patients is greatly affected by the disorder [35]. The physical and psychological quality of life in chronic idiopathic urticaria is markedly reduced [36] which is suggestive of the severe distress because of the disorder. When it comes to psychiatric morbidity literature suggests that anxiety and depression is common in cases of urticaria [36,37].

**Vitiligo**

Vitiligo is a depigmentary disorder which mostly painless, however cosmetic disfigurement is the source of discomfort. It is also unfortunately associated with great social stigma especially in societies like India where once patients of vitiligo were treated as untouchables. Vitiligo runs a chronic and unpredictable course requiring long term treatment but there is no uniform effective therapy and this is usually very demoralizing for patients [38]. Patients reveal indications of significant distress that are related to specific types of social encounters and emotional disturbances [39]. The quality of life in patients of vitiligo is hampered, especially in female patients. The psychological and environmental quality of life is affected in a negative way due to psychosocial impact of the disorder [9] Vitiligo patients are stared at, whispered about or subjected to antagonism, insult, isolation and are greeted differently [38] and high number of patients of vitiligo suffer from depression [40] and tend to feel more hopeless with time [41]. Impact of vitiligo remains more psychosocial than purely medical in this sense.

**Conclusion**

The research in psychodermatology is growing and insightful. The quality of life in these disorders is affected in most cases and various factors negatively affecting it are the chronicity of disorder, inconveniences of the disorders and therapy, lack of uniform response to therapy, cosmetic impact and easy noticeability. The common comorbidities include anxiety, depression which may not be related to clinical severity of these disorders always but psychological deterioration is invariably associated with an exacerbation of the dermatological condition. The liaison between these two disciplines of psychiatry and dermatology holds the key for favourable outcome of the psychodermatological disorders.

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