Does Mind affect Skin?
An emerging interface between dermatology & psychiatry.

A. Somani *, P. Waradkar **, J. Mukhi****

Abstract:

Psycho dermatology addresses the interaction between mind and skin. Psychiatry is more focused on the 'internal' no visible disease and dermatology is focused on the 'external' visible disease. There exists a complex interplay between the two disciplines which needs to be understood to offer correct treatment. Psycho dermatologic disorders fall into three categories: psycho physiologic disorders, primary psychiatric disorders and secondary psychiatric disorders. Psycho physiologic disorders (e.g., psoriasis and eczema) are associated with skin problems that are not directly connected to the mind but that react to emotional states, such as stress. Primary psychiatric disorders involve psychiatric conditions that result in self-induced cutaneous manifestations, such as trichotillomania and delusions of parasitosis. Secondary psychiatric disorders are associated with disfiguring skin disorders. The disfigurement results in psychological problems, such as decreased self-esteem, depression or social phobia. In more than one third of dermatology patients, effective managements of skin conditions involve consideration of associated psychological factors.

Similar findings where noted in a pilot study conducted at Dept.of Psychiatry IGGMC Nagpur where Patients included in the study were those presenting to Dermatology OPD first and subsequently referred to psychiatry .

Increased understanding of biopsychosocial approaches and liaison among primary care physicians, psychiatrists, and dermatologist could be very useful and highly beneficial.

Key words: Psycho cutaneous disorders, Mind, Skin, Consultation –Liaison Psychiatry.

Introduction: Psycho dermatology, or psycho cutaneous medicine, focuses on the boundary between psychiatry and dermatology. Understanding the psychosocial and occupational context of skin diseases is critical to the optimal management of psycho dermatologic disorders.

The management of psycho dermatologic disorders requires evaluation of the skin manifestation and the social, familial and occupational issues underlying the problem. Once the disorder has been diagnosed, management requires a dual approach, addressing both dermatologic and psychological aspects. Even with self-induced skin problems, supportive dermatologic care is needed to avoid secondary complications, such as infection, and to ensure that the patient feels supported

Management options include psychotropic medication, stress management courses and referral to a psychiatrist. . Patients with psycho dermatologic disorders frequently resist referral to mental health professionals. . Acceptance of psychiatric treatment or consultation may be enhanced through support from the family physician.

Classification

Psycho dermatologic disorders can be broadly classified into three categories:

1)psycho physiologic disorders,
2)primary psychiatric disorders
3) secondary psychiatric disorders.

The term “psycho physiologic disorder” refers to a skin disorder, such as eczema or psoriasis that is worsened by emotional stress “Primary psychiatric disorder” refers to a skin disorder such as trichotillomania, in

Address for correspondence
Assistant Prof, ** Associate Prof.
Dept. of Psychiatry I.G.G.G.M.C Nagpur.
*** Assistant Prof (Skin).
Dr A Somani
539, Hivary Lay out Nagpur-08
email :drabhisheksomani@gmail.com

which the primary problem is psychological; the skin manifestations are self-induced. "Secondary psychiatric disorders" affect patients with significant psychological problems that have a profoundly negative impact on their self-esteem and body image. Depression, humiliation, frustration and social phobia may develop as a consequence of a disfiguring skin disorder.

Table 1
Lists common diagnoses associated with the different categories of psycho dermatologic disorders.

Table 1.	
Major categories	***Examples***
Psycho physiologic disorders	Acne
	Alopecia areata
	Atopic dermatitis
	Psoriasis
	Psychogenic purpura
	Rosacea
	Seborrheic dermatitis
	Urticaria (hives)
Primary psychiatric disorders	Bromosiderophobia
	Delusions of parasitosis
	Dysmorphophobia
	Factitial dermatitis
	Neurotic excoriations
	Trichotillomania
Secondary psychiatric disorders	Alopecia areata
	Cystic acne
	Hemangiomas
	Ichthyosis
	Kaposi's sarcoma
	Psoriasis
	Vitiligo

1. Adapted from M Jafferaney,Prim Comp. J Clin Psy 2007;9(3)

Table 2.
Current Classification According to DSM (Diagnostic & Statistical Manual-IV edition)

Sr NoDSM-IV TR Category	Disorders Included
I Psychological Factors Affecting Medical Condition	Atopic Dermatitis Psoriasis Alopecia Areata Urticaria and Angioedema Acne Vulgaris
ii Somato form Disorders	Chronic Idiopathic Pruritis Idiopathic Pruritis Ani, Vulvae and Scroti Body Dysmorphic Disorder
iii Delusional Disorder	Delusional Parasitosis Delusion of Defect in Appearance Delusion of Foul Body Odour.
iv Impulse Control Disorder	Spsychogenic Excoriation Trichotilomania Onychophagia
v Factitious Disorders	Factitious Dermatitis Psychogenic Purpura

2. From Kaplan & Sadock's Synopsis of Psychiatry, Xth edn.

Etiological Factors for Psychodermatological Disorder:
It is postulated that following factor play pivitoal role.

STRESS
As stated earlier, Stress plays a very important role in interplay between both these specialities. many dermatological disorders are either initiated or are maintained in exacerbated states due to the factor of stress. it's needless to stress the role of stress in psychiatric illnesses.

PHYSIOLOGICAL FACTORS (1)
NEURAL MECHANISMS- especially pain perceptions,

histamine and related itch factors, neuropathic symptoms are majorly mediated through neural pathways.

ENDOCRINE DYSREGULATION- hypothalamo-hypophyseal-gonadal & adrenal dysregulations are known in psychiatric as well as dermatilogical illnesses.

AUTONOMIC DYSFUNCTION- stress associated prolonged activation of sympathetic system has it's own long term effects in making the body susceptible to illnesses.

1.IMMUNOLOGICAL DYSFUNCTION- where auto-immune disorders target both, the skin as well as the mind.

Epidemiological Data:

Psychiatric factors are instrumental in the etiology and course of skin conditions. The skin disease is not caused by stress but appears to be precipitated or exacerbated by stress.The proportion of patients reporting emotional triggers varies with the disease, ranging from approximately 50% (acne) to greater than 90% (rosacea, alopecia areata, neurotic excoriations, and lichen simplex) and may be 100% for patients with hyperhidrosis.

Study

Here we quote a small study done at a tertiary care centre in urban setting.

Patients included in the study were those presenting to Dermatology opd first and subsequently referred to psychiatry .

Study period- 14-jan-2009 to 14-feb-2009.

Data collected for total 32 patients.

Sr No	Diagnosis	Male	Female
1	Dhat Syndrome	9	
2	Delusional Parasitosis	3	13
3	Somatoform (Itching)	2	
4	Trichotillomania	1	
5	Neuropathy	4	
	Total	19	13

- All Dhat Syndrome patients were young unmarried males less than 25 years of age.
- 10 out of 13 females with delusional parasitosis were post-menopausal.
- Both patients with persistent itching were older males in age group of 50-60 years.
- Trichotillomania patient was a 5-year-old kid with mild mental retardation.
- All 4 neuropathy patients had past history of alcohol dependence.2 had pellagra also.
- All patients responded to treatment and had significant remission in symptoms by their 3rd visit.
- One patient with Dhat syndrome later developed Psychotic symptoms and was switched to appropriate medications.

It's intersting to note that we had a majority of male patients coming with dhat syndrome , yet this diagnosis is not a official nomenclature hence does not figures in the diagnostic categories list mentioned above.

Some common Dermato-Psychiatric disorders

1. Atopic Dermatitis
- Pruritis & inflammation at discrete body sites.
- lichenification, excoriation & infections frequently seen

LICHEN SIMPLEX CHRONICUS- variant of atopic dermatitis
- Sloitary plaque of thickened skin due to repeated rubbing & scratching.
- USUAL SITES: Nape of neck, Lower legs, ankle, wrist, scalp,external ear, extensor aspect of forearm.
- Not all atopics lichenify and lichenification is seen in many non-atopics too.

Stressful life events are seen very frequently prior to onset of atopic dermatitis and on-going stress associated with low self esteem & adjustment problems add to disease resistance.

Williams(1951) found that 45% of children with atopic dermatitis whose mothers received counseling were clear of lesions versus only 10% in the group receiving con- ventional (nonpsychosocial) therapy alone.

1. Psychologic interventions, such as brief dynamic psychotherapy, biofeedback, cognitive-behavioral therapy, relaxation techniques, and hypnosis, can be important adjuncts to treatment (2)

2.PSORIASIS

Chronic relapsing disease with characteristic lesionsinvolving both vasculature & epidermis

- Have clear - cut borders
- Non adherent silvery scales
- Glossy homogenous erythema.

The most common psychiatric symptoms attributed to psoriasis include disturbances in body image and impair- ment in social and occupational functioning.(3) Quality of life may be severely affected by the chronicity and visibil- ity of psoriasis as well as by the need for lifelong treat- ment. Five dimensions of the stigma associated with pso- riasis have been identified: (1) anticipation of rejection, (2) feelings of being flawed, (3) sensitivity to the attitudes of society, (4) guilt and shame, and (5) secretiveness.(4)

Psoriasis is also highly associated with depressive and anxiety symptoms and subsequently, suicidal events.(5)

350 diagnoses of suicidality are attributable to psoriasis annually. (6)

3.ALOPECIA AREATA

- Non scarring hair loss in patches of typically well demarcated smooth skin.
- "Exclamation mark hairs"
- Often affects scalp but can affect other hairy areas.
- 30% completely recover

Acute emotional stress may precipitate alopecia areata, perhaps by activation of overexpressed type 2 β corticotropin- releasing hormone receptors around the hair follicles, and lead to intense local inflammation.(7) Comorbid psychiatric disorders are also common and include major depression, generalized anxiety disorder, phobic states, and paranoid disorder.(8,9)

4.ACNE VULGARIS

- Sebaceous gland disease characterized by comedones,papules, pustules & nodules.
- Commonly seen in Adolescence.
- stress in one of the factors.
- Associated with self-image problems ; also post inflammatory sequelae in form of scars and pits.

Acne is frequently found in late adolescence and is associated with social and psychological problems. Adverse events including suicidal ideation and depression that have been associated with therapies for acne may reflect the burden of substantial acne rather than the effects of medication.(10)

Though there've been anecdotal reports about depressive and suicidal ideations associated with use of Isotretinoin, a recent study demonstrated that Mood deterioration was not detected, but the possibility of subtle or rare mood effects of isotretinoin cannot be ruled out.(11)

Some common Psycho-dermatological Disorders

1.PSYCHOGENIC EXCORIATION

- Characterized by self-induced skin lesions.
- seen in easily reachable areas.

Psychiatric comorbidity of Psychogenic excoriation includes body image disorder, depression, anxiety, obsessive-compulsive disorder (OCD), delusional disorders, personality disorders, and social phobias(12)

2.TRICHOTILLOMANIA

- Disorder of chronic hair pulling behavior.
- Leads to patchy alopecia
- Swallowing of hairs may lead to tricho-bezoars
- has both obsessive-compulsive as well as impulsivity symptoms.

The patients experience an increasing sense of tension immediately before an episode of hair pulling and when attempting to resist the behavior. Hair pulling is followed by relief of tension and sometimes a feeling of gratification (13)

Associated psychiatric conditions may include anxiety, depression, dementia, mental retardation, mood or adjust- ment disorder, comorbid substance abuse, and eating dis- order(14)

3.FACTITIOUS DERMATITIS

- Patient Intentionally produces skin lesions in order to assume sick role.
- Patients deny self-inflicted nature of lesions

- Lesions may resemble previous dermatoses or exacerbate pre-exsiting condition.

Associated Psychiatric conditions include OCD, borderline personality disorder, depression, psychosis, and mental retardation.(15)

1. Relaxation exercises, antianxiety drugs, antidepressants such as SSRIs, and low-dose atypical antipsychotics might also be useful(16)

4. Dhat Syndrome

- Dhat syndrome is typically seen in young unmarried males.
- there is cultural sanction against masturbation in india and with more emphasis on post marital sex,
- these persons often develop a fear of becoming weak due to losing semen as night-fall or during any strenous activity like defecation.
- Since often dermatologists treat venereal diseases (Gupt Rog), patients often present in dermatologist office with above symptoms.

Dhikav et al.studied 30 patients with Dhat syndrome and found that the mean age of onset was 19 years, with mean duration of the illness being 11 months. Twenty out of 30 patients met the diagnostic criteria for depression. A majority of the cases were unmarried (64.2%) and educated till 5th standard or above. Ten patients (33.33%) were found to have a co-morbid problem of premature ejaculation and ten patients (6.6%) reported erectile dysfunction. Bhatia and Malik studied 93 patients with Dhat syndrome and found weakness (70.8%) to be the most common complaint, followed by fatigue, palpitation, sleeplessness, loss of interest, loss of concentration, depression and headache. Among the psychiatric problems, neurotic depression was found to be the most common, found in 39.5%, followed by anxiety neurosis in 20.8%, major depressive psychosis in 6.3% and phobia in 2.1%. In 18.6% of the patients, there was associated suicidal tendency.(17,18)

Dermatological side-effects of Psychiatric drugs.
table 3:
Adapted from M Jafferaney,Prim Comp. J Clin Psy 2007;9(3)

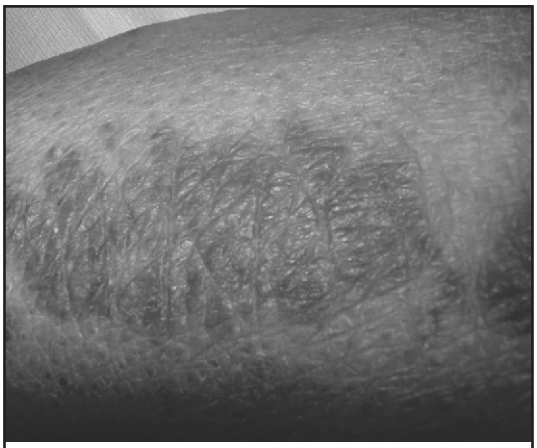
Psychiatric Drugs	Dermatological Side-effects
Anti-Psychotics	Skin Discoloration, Photosensitivity, Lupus like syndrome, rash, Contact dermatitis, erythema multiformae, purpura, urticaria, palamr erythema.
Anxiolytics	Exacerbation of Porphyria, fixed Drug eruptions, hyperpigmentation, bullous lesions, rash, photosensitivity, urticaria, erythema multiformae, eryhtema nodosum
Anti-depressants	Rash, Photosensitivity, multiformae, petechiae, Vasculitis, Leukonychia, Acne, Aloepecia, Psoriasis.
Mood-stabilizers (including Lithium)	Photosensitivity, Hair loss, Urticaria, Erythema multiformae, Rash, Hypersensitivity reaction, Exfoliative Dermatitis, Systemic lupus Erythematosus, Scleroderma, Vasculitis, Steven-Johnson Syndrome, Toxic Epidermal Necrolysis, Follicular Hyperkeratosis, Mucosal Ulcerations

Conclusions

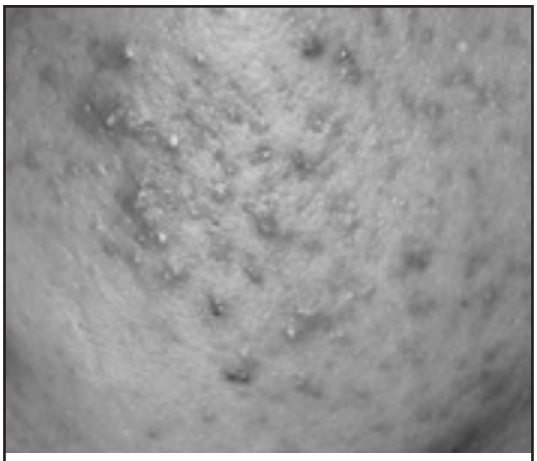
The emerging links between dermatological & psychiatric disorders point to an exciting new sub-speciality with connotations for further research and clarification about managing both simultaneously. This disorders require long term treatment as they relapse with change of bio-psycho-social milieu.

Use of Bio-Psycho-Social model in understanding these interactions and improving liasion amongst primary care physicians, psychiatrists and dermatologists to improve shared care of these patients is highly recommended.

Also we need to start patient educations on the following line to minimize the relapse & to improve compliance.

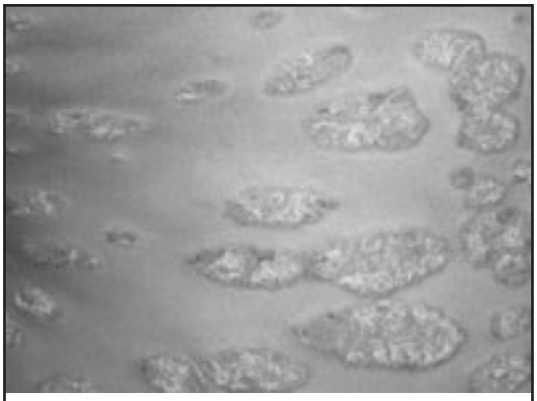


lichen simplex



acne

tricotilomania



poriasis

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