PSYCHODERMATOLOGY
Psycho dermatology

- Psychiatry focuses on the “internal and invisible”
- Dermatology on the “external, visible”
- Interface between psychiatry and dermatology
- Both derived from ectoderm, may influence each other
- In more than one third dermatology patients, effective treatment requires psychiatric involvement
Introduction

- Basically classified into dermatological conditions with psychiatric symptoms
- Psychiatric illness in which the skin is the target of disordered thinking, behaviour or perception.
- Cutaneous manifestation of psychotropics
Classification – DSM IV TR

1. Psychological factors affecting medical conditions
   - Atopic Dermatitis
   - Psoriasis
   - Alopecia Areata
   - Urticaria, Angioedema
   - Acne Vulgaris
   - Others
Classification…

II. **Undifferentiated somatoform disorder**
- Chronic Idiopathic Pruritis
- Body Dysmorphic Disorder

III. **Pain disorder**
- Idiopathic Glossodynia
- Essential Vulvodynia
Classification...

IV. Delusional Disorder, Somatic type

- Delusions of parasitosis
- Delusions of a foul body odour
Classification...

V. Impulse control disorders (OCD spectrum)
- Psychogenic Excoriation
- Onychophagia
- Trichotillomania

VI. Factitious Disorder
- Factitious Dermatitis
- Psychogenic Purpura
Ia - Atopic Dermatitis

- Chronic skin disorder with persisting and relapsing course, characterized by pruritis and eczema
- Starts by childhood/adolescence
- Common condition with a 10% prevalence, 1.2 - 1
- Increased prevalence in recent times - reasons
Atopic Dermatitis - Causes

- Genetic influence – family and twin studies
- Increased IgE production, defective cell mediated immunity are heritable factors
- Abnormal histamine release by mast cells and basophils, probably due to substance P released by cutaneous nerves
Atopic Dermatitis - Triggers

- Environmental – aeroallergens, food, pollen
- Stressful life events – can precede onset and exacerbations
- Stress ---- CRH release ---- pro inflammatory actions ---- activates mast cells ---- release of mediators
Atopic Dermatitis - Psychological aspects

- Adult AD patients are more anxious and depressed than control groups.
- Depressive symptoms amplify itch perception.

Diagram:
- Atopic dermatitis
  - Anxiety/depression
  - Scratching behaviour
Atopic Dermatitis in children

- Parental responses of attention / physical contact worsen scratching
- Severe AD has one third morbidity in behavioural symptoms
- Emotional state related to severity of the illness.
Psychiatric intervention - Scope

- Ideally recommended in all patients with mod – severe disease
- Aim – improve QOL, interrupt the itch – scratch cycle
- Relaxation training, Stress management techniques
- Habit reversal training
- Cognitive behavioural techniques
Drug therapy

- Topical doxepin 5%, reduces pruritis due to histamine antagonist action
- Trimipramine at 50mg/day, decreases sleep fragmentation, reduces time spent in stage 1 sleep, which reduces scratching during the night.
Ib - Psoriasis

- Chronic relapsing skin disease
- Clear cut borders and silvery scales
- Prevalence 1 – 2 %, equal in both genders
- Onset usually in 3rd decade
- Lifelong course with unpredictable exacerbations
Psoriasis - Causes

- Genetic predisposition – HLA loci
- Triggers - External- cold weather, trauma, infections, stress
- Drug related – beta blockers, steroid withdrawal
- Lithium induced psoriasis - occurs within the first few years of treatment, resolves after discontinuation of treatment.
Stress and Psoriasis

- Vicious cycle between psoriasis and stress
- Is a trigger in up to 80% recurrence
- Stress——— release of neuropeptides from cutaneous nerves —— inflammatory response.
- The predictors of disability are anticipation of social stigma, perception of health and depression
Psoriasis – Psychological aspects

- High levels of anxiety and depression
- Depression correlates with patient’s disease perception, increases itch perception, worsens treatment outcome
- Wide array of co morbid personality disorders – schizoid, avoidant, compulsive, passive – aggressive - ? more stress
- Heavy alcohol drinking (>80g/day) is a poor outcome predictor
Scope of psychiatric management

- Ideally a part of treatment in all.
- Meditation, hypnosis, relaxation, stress management have reduced activity of psoriasis.
- No studies to determine if pharmacological management of psychiatric co-morbidity reduces disease activity.
Ic - Alopecia Areata

- Non scarring patchy hair loss - scalp, facial and body hair, varies from single patch - complete hair loss
- Incidence is 2% among derm OP, equal prevalence in both sexes
- Peaks 20 - 50 years
Alopecia Areata - Causes

- Prognosis – 30% may never recover, 30% completely recover
- Autoimmune cause is suspected with probable T cell dysfunction and because of response to immunosuppressant
- Conflict about role of stress in causation
- Substance P, CRH – links between stress and skin
Alopecia – Psychological Aspects

- Stressful events are more common in the six months prior to alopecia onset vs. controls

- Uncontrolled studies – greater prevalence of major depression, anxiety and paranoid disorder in adults and in kids
Alopecia - Management

- Patients on Imipramine (75 mg/ day) had more hair growth than placebo controls
- Effect independent of reduction in anxiety or depression
- SSRIs are promising for treatment of alopecia and comorbid neurosis
- Improvement with relaxation training – more studies
Urticaria and Angioedema

- Urticaria - circumscribed, raised, erythematous, pruritic areas
- Urticaria involves the superficial dermis, while angioedema extends deeper
- 15 – 20% prevalence, more common in women, peak ages 20-40y
- Mostly resolves within 6 weeks, which lasts longer is chronic urticaria, responds poorly to treatment, lasts many years in about 20%
Urticaria - Causes

- Occurs due to vasoactive mediators in the skin
- Probable autoimmune causation, presence of anti IgE antibodies, C1 esterase inhibitor deficiency
- Emotional stress ----- increased adrenaline and Nor adrenaline ----- Halo hives, respond to Propranolol
Urticaria – Psychological Aspects

- Increased levels of depression and anxiety
- Depression worsens itch perception
- Doxepin at low doses, Nortryptilline have effect on the pruritis - ? due to antihistamine activity or central effects
- SSRIs have been found promising in one study
- Hypnosis with relaxation reduces the pruritis in a controlled study
Ie - Acne Vulgaris

- Scarring disease of sebaceous glands
- Starts in teenage, more common and severe in men
- Course usually self limited, women more likely to have persistence
Acne Vulgaris – Psychological Aspects

- Stress ---- release of adrenal steroids ---- increases sebum production ---- acne is worsened
- Positive association exists between acne severity, negative self image and anxiety
- Affects quality of life substantially with socio occupational dysfunction
Acne Vulgaris - Management

- Paroxetine to treat co morbid depression reduces acne also
- Adjunctive psychological treatment with relaxation and cognitive imagery treatment has better results than medical treatment alone
Isotretinoin and depression/suicide

- Successful treatment of acne with Isotretinoin improves patient self image, clears depression and anxiety.

- Though some case reports mention some association no evidence links the above.

- Important to counsel patients about this possibility prior to treatment and to monitor carefully.
Prurigo Nodularis

- Prurigo nodularis is characterized by very itchy firm lumps.
- Mainly in adults aged 20-60 years, equal gender distribution.
- Idiopathic causation
  Up to 80% of patients have a personal or family history of atopic dermatitis
Prurigo Nodularis - Management

- Anxiety, depression common
- Condition chronic, resistant to trt
- Doxepin has use as antidepressant, histamine antagonist
- SSRIs combination with derm treatment
Dermatological conditions with possible stress etiology

- Rosacea
- Telogen Defluvium
- Primary Hyperhidrosis
- Seborrheic Dermatitis
II - Somatoform disorders

Somatoform disorders - physical symptoms suggesting a physical disorder for which there are no demonstrable organic findings or physiological mechanisms, and for which there is a strong evidence/presumption that the symptoms are linked to psychological factors or conflicts.
II - Chronic Idiopathic Pruritis

- Pruritis is most common symptom of skin disorders
- Psychiatric factors can affect itch
  1. Decreases itch threshold, prolongs severity and duration
  2. CRH elevation ----- CNS opiate ----- enhance itch
  3. Stress ---- substance P ---- itching
Chronic Idiopathic Pruritis - Management

- Tricyclic antidepressants can relieve pruritis
- Behavioral treatment – habit reversal training and CBT, can interrupt the itch scratch cycle and prevent complications of continuous itching
Body Dysmorphic Disorder

- **Body Dysmorphic Disorder** - preoccupation with an imagined defect in appearance
- 12% of dermatology, 1-2% of general population
- Onset in adolescence, young adults
- Poor QOL, high rates of depression, suicidal ideation
- Responds to treatment with SSRIs, CBT
- Augmentation with antipsychotic may help
III – Pain Disorders

- Glossodynia
- Vulvodynia
IVa - Delusional Disorder, Somatic Type

- **Delusions of Parasitosis** – fixed belief that one is infested with living organisms despite a lack of medical evidence

- Perceptual abnormalities common

- Associated with many medical disorders

- Can be a part of some psychiatric conditions

- Drug related causation possible – amphetamines, cocaine, steroids
Delusional Parasitosis – OC

Symptoms?

- Distressing, anxiety provoking, recurrent thoughts regarding infestation which are difficult to control
- Repetitive behaviour like washing, cleaning, skin excoriation, use of insect repellants may be present
Delusional Parasitosis – Psychological Aspects

- Specific precipitant ---- history of potential/actual exposure to contagious organisms --- repeated consultations

- Socio occupational dysfunction can result due to the preoccupation
Delusional Parasitosis - Management

- One controlled study on potency of Pimozide for 6 weeks to 5 months, 50% potency. Uncontrolled reports of efficacy with other antipsychotics
- No evidence that Pimozide is superior
- Case reports of successful treatment with Naloxone, Naltrexone, SSRI, ECT, TCAs
- Behaviour therapy may have a role due to OC characteristics.
IV - Other Delusional Disorders, Somatic Type

- Delusion of foul body odour – encapsulated somatic delusion
- Treatment data are limited, possible efficacy for Pimozide and other antipsychotics
VI - Obsessive Compulsive Spectrum Disorders

- A - Psychogenic Excoriation
- B - Onychophagia
- C - Trichotillomania
VI a – Obsessive Compulsive Spectrum Disorders

- **Psychogenic Excoriation** – excessive scratching/ picking of normal skin/ mild surface irregularities
- Lesions in areas patient can easily reach
- Incidence of 2% among dermatology OP
- More in women, 30 – 45 years at onset, duration 5 yrs
Psychogenic Excoriation

- Repetitive, ritualistic, tension reducing behaviour
- Increase intension before and transient relief after
- Obsessions about skin smoothness, presence of dermal irregularities also present
- Behaviour spans a compulsivity – impulsivity spectrum
Psychogenic Excoriation – Management

- Open trials of successful treatment with SSRIs, Doxepin
- Case reports of treatment with olanzapine, pimozide, naltrexone
- Behavioural treatment shows good results in case reports
VIc - OC Spectrum Disorders - Onychophagia

- Repetitive nail biting
- Variant is onychotillomania
- Peak between 10 - 18 years
- Preferential response to clomipramine over desipramine
- Behaviour Therapy including habit reversal is useful
VI – Factitious Disorders

- A – Factitious Dermatitis/ Dermatitis Artefacta
- B – Psychogenic Purpura
VI a Factitious Dermatitis

- Patients intentionally produce skin lesions to assume the sick role
- Occurs in about 0.3% dermatology patients
- Female to male is around 3 - 8 is to 1
- Greatest frequency is in adolescents and young adults
- 30% develop a chronic illness
Diagnosis – Factitious Dermatitis

- Affected sites are more accessible, more on one side of the body
- Sharp geometric borders
- Natural progression of lesions not evident
- History is vague
- Suggestibility to next site of lesion
- Occlusive dressing halts progression
Factitious Dermatitis - Psychological Aspects

- Onset common after severe stressor
- Co morbid borderline disorder common
- D/D - depressive/psychotic/MR SIB
- Patients may refuse psychiatric referral
- Rx - empathetic therapeutic relationship
VIb – Psychogenic Purpura

- Spontaneous appearance of purpura, usually after injury/surgery
- Coagulation tests are normal, no auto antibodies
- Mostly women in reproductive age group
Psychogenic Purpura

- Cause - idiopathic. Hypothesis about auto erythrocyte sensitization
- Possible psychogenic cause due to:
  1. Previous stressors often present
  2. Other unexplained somatic symptoms
  3. Significant co morbid psychiatric symptoms
# Cutaneous Side Effects of Psychiatric Medications

<table>
<thead>
<tr>
<th>Class</th>
<th>Side Effects</th>
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</thead>
<tbody>
<tr>
<td>Anticonvulsants</td>
<td>Allergic rashes, alopecia, Steven–Johnson syndrome, toxic epidermal necrolysis, lupus like syndrome</td>
</tr>
<tr>
<td>Antidepressants</td>
<td>Allergic rashes, phototsensitivity(TCAs), hyperhydrosis</td>
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</tbody>
</table>
**Cutaneous Side Effects of Psychiatric Medications**

| Antipsychotics | Skin pigmentation (tz, cpz)  
|                | Photosensitivity (phenotz)   
|                | Lupus like syndrome (phenotz) 
|                | Contact dermatitis, injection site reactions |
| Lithium        | Urticaria, rash, alopecia, folliculitis, acne exacerbation, warts, psoriasis |
CBZ Rash
Photosensitivity
Hyper pigmentation
Steven Johnson
Conclusions - Liaison

- Best managed when psychiatrist and dermatologist collaborate
- Availability of psychiatrist as a part of the team improves patient acceptability
- Lack of such facilities necessitates dermatologist dealing with stress management and starting psychotropic medication
Conclusions

- Skin disorders with psychiatric comorbidities tend to be chronic, disfiguring.
- Cause – response question needs to be answered, whether the anxiety/depression is a precipitant, co morbidity or a result.
- Psychosocial aspect of these conditions falls in our domain.
Conclusions - Classification

- Delusion or obsession question exists about delusional parasitosis
- Impulse control disorder or OCD dilemma about psychogenic excoriation, trichotillomania, onychophagia
- Nature of psychogenic purpura not well established as a psychiatric disorder
Conclusions – Evidence Base

- More studies to investigate the link between stressors and dermatological conditions
- Psychoneuroimmunoendocrine interactions and pathology needs to be better understood
- Well controlled studies on treatment of these conditions are needed
- Non Pharmacological techniques need to be evaluated further
References

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