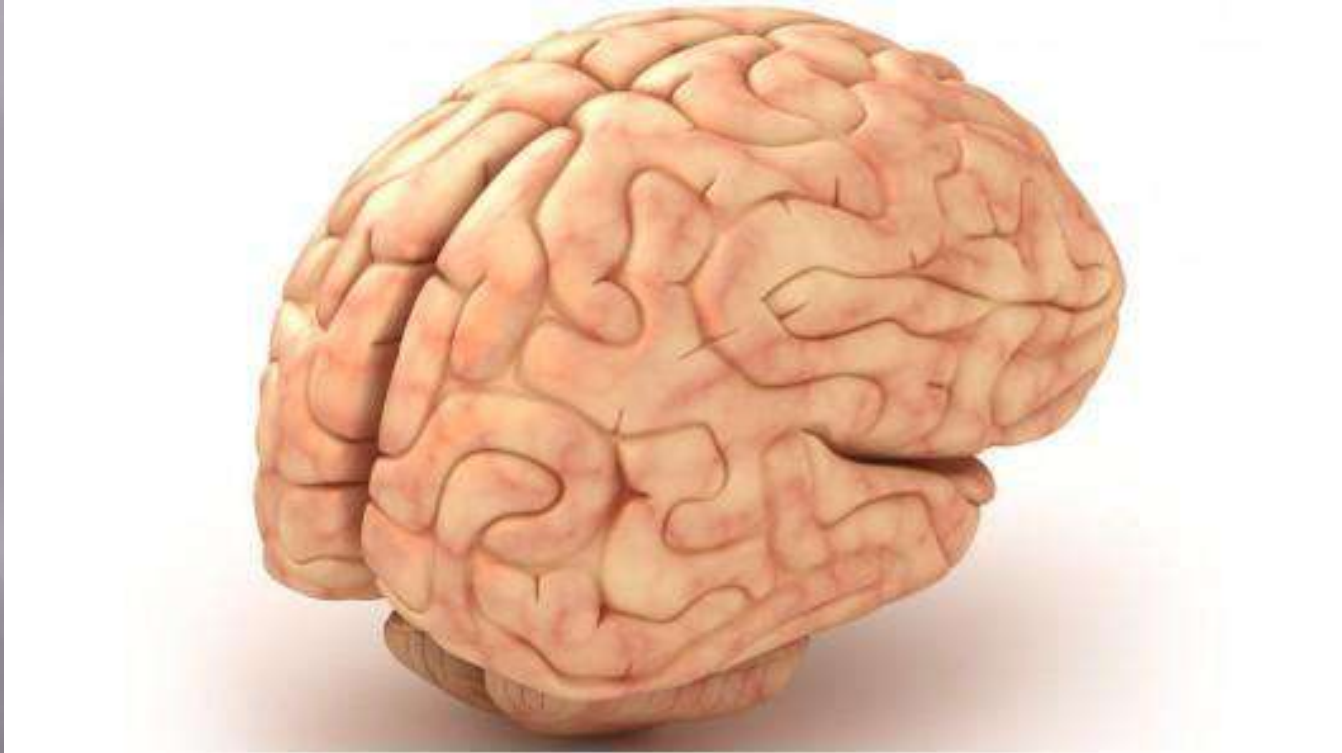


# PSYCHOCUTANEOUS DISORDERS



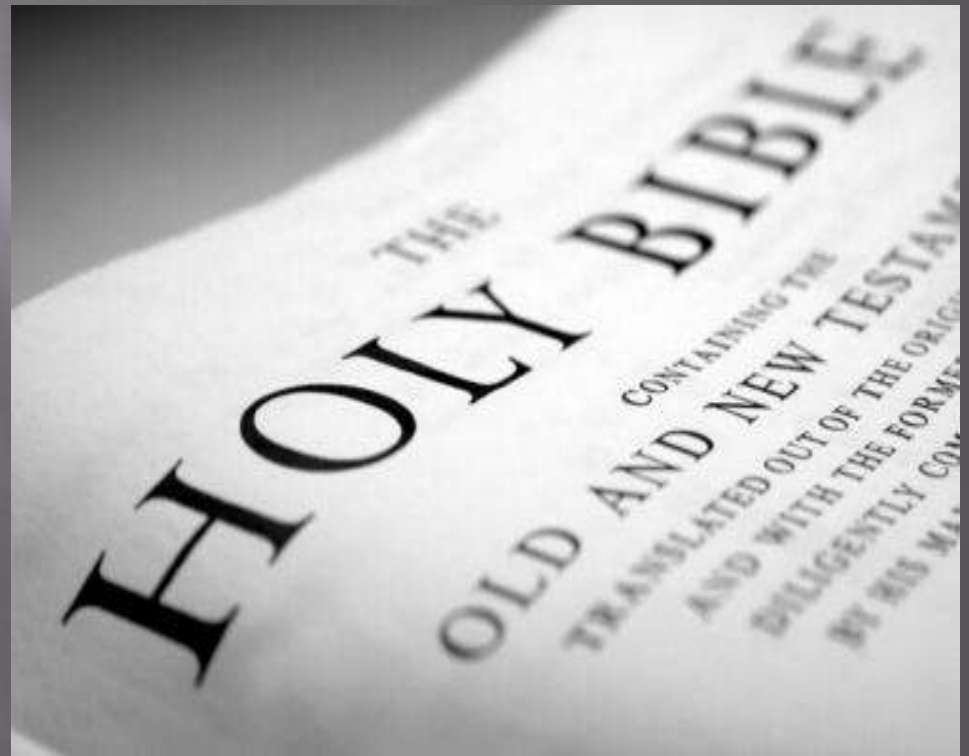
# INTRODUCTION

- The field of psychodermatology or psychocutaneous medicine focuses on the interaction between the mind, the brain, and the skin.
- Psychiatry is focused on the “internal invisible disease”
- Dermatology is focused on “external visible disease.”

# INTRODUCTION

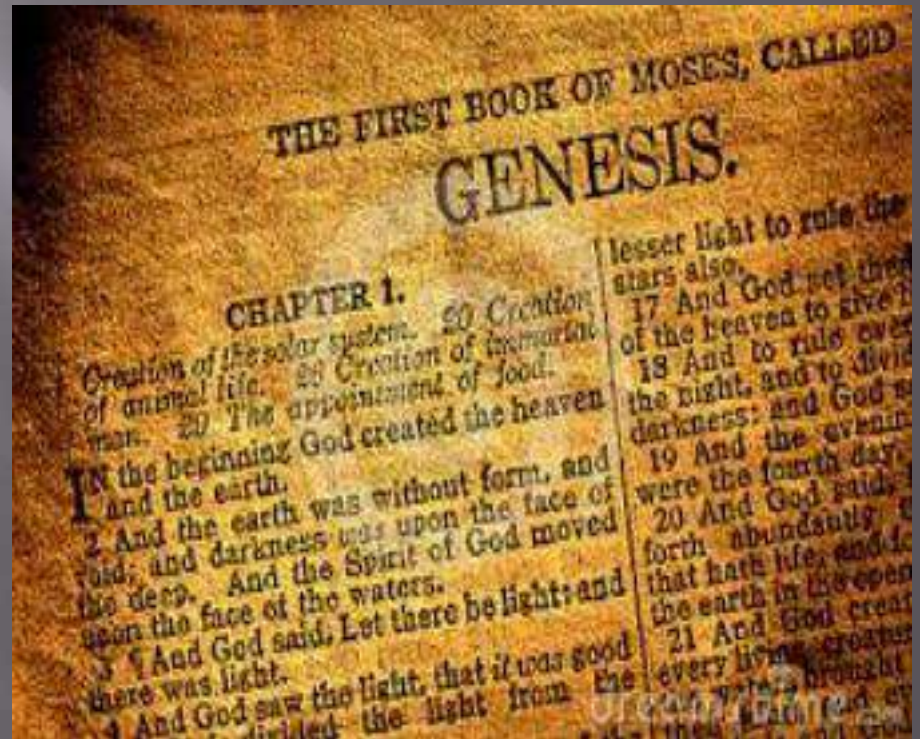
Even though psychodermatology is a relatively new discipline, but its history is rather old and interesting.

The **Bible** includes several episodes in which a relationship is established between the mind and the skin.



# INTRODUCTION

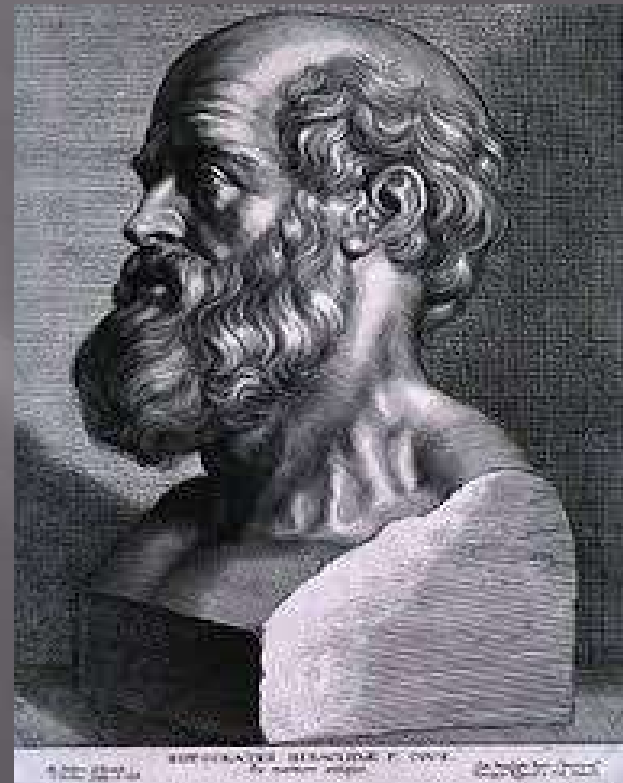
The **book of Genesis** states "He put a sign Lord Cain, lest anyone find him hurt you..." The mark of Cain is a sign that he is "protected" from any attack, and his skin serves as a defense mechanism. (Cossidente et al, Schwab et al)



# INTRODUCTION

Hippocrates (460-377 BC) talked about stress and its effect on the skin where he mentioned about people who in response to stress tore their hair.

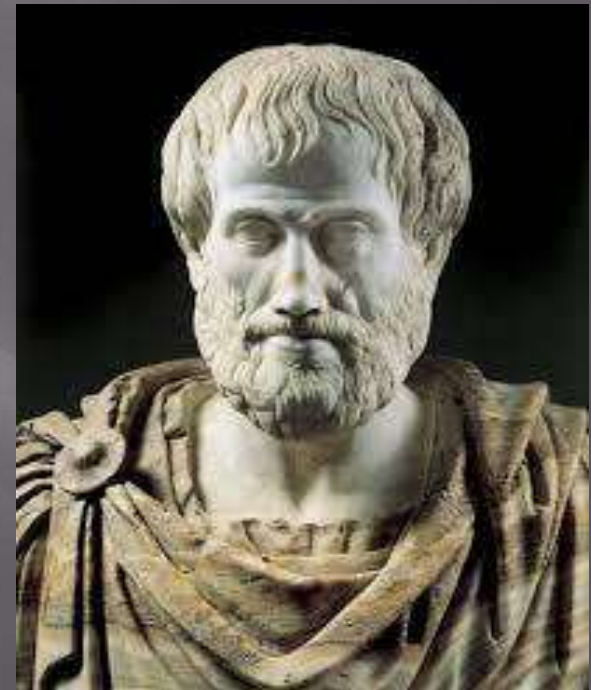
He also talked about fear and its effect on skin and brought to light the fact that when our heart would beat faster, we would sweat.





# INTRODUCTION

*Aristotle (384-322 BC)* also believed that the mind and body were not separate hence inseparable. (Franca K et al)

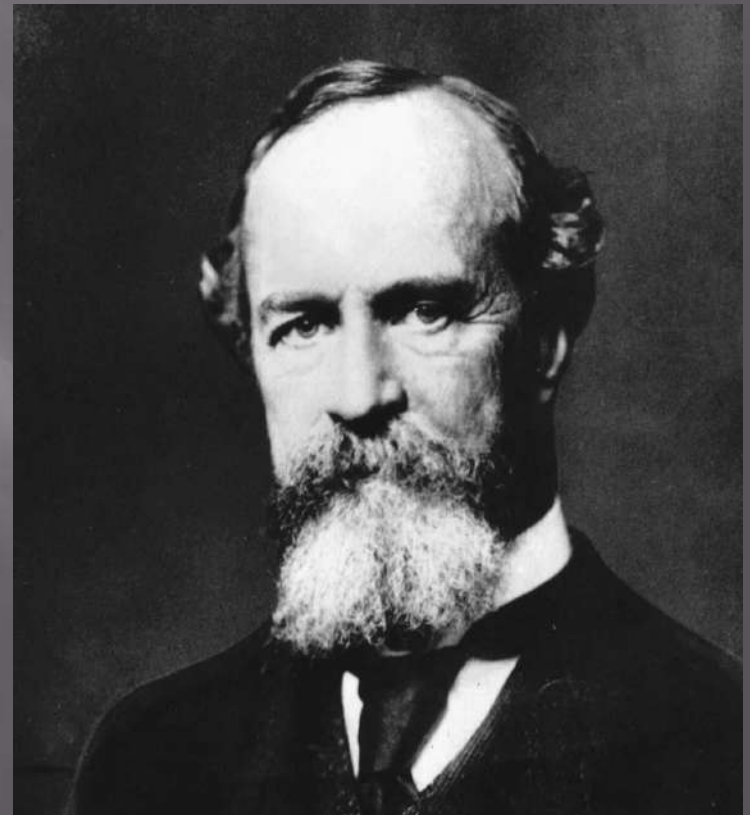


# INTRODUCTION

In 1857, the English dermatologist and surgeon **William James Erasmus Wilson** wrote the book "Diseases of the Skin", in which he describes the first the so-called "skin neurosis".

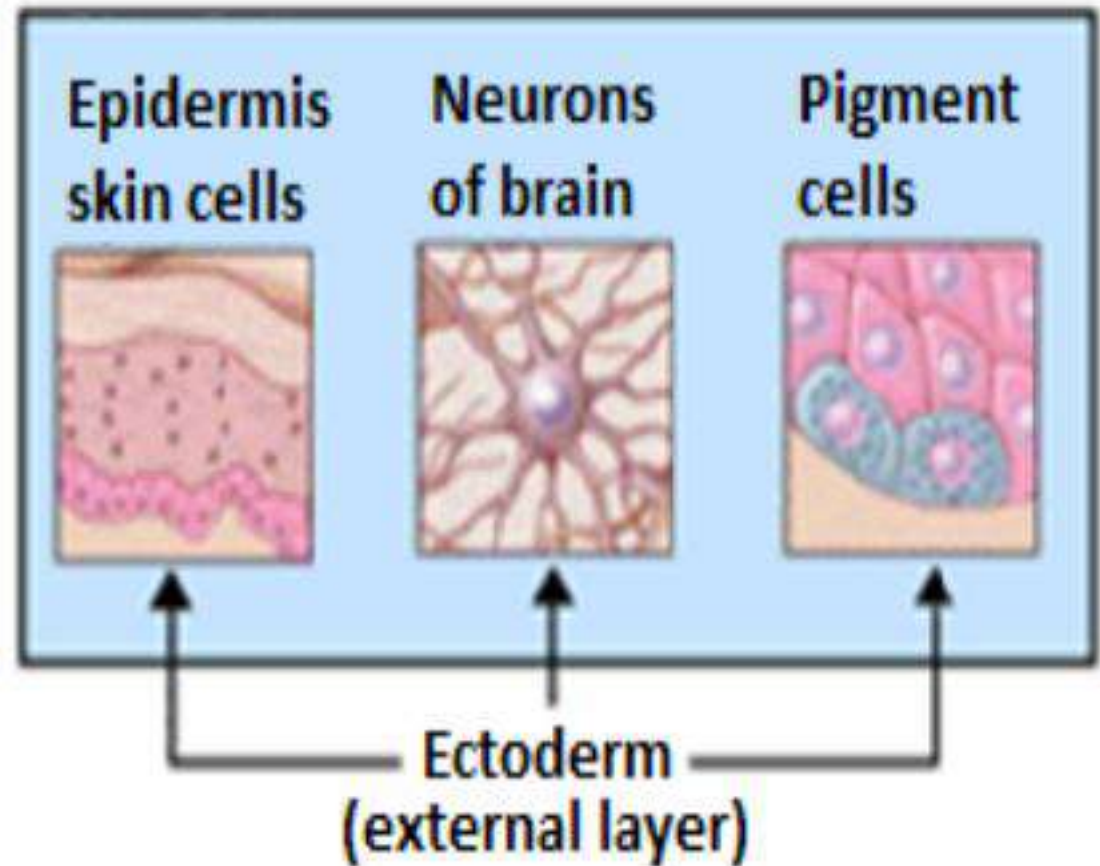
Addressing topics such as delusions of parasitosis, alopecia areata, pruritus, and hypopigmented lesions.

Many consider this book to be the starting point of psychosomatic dermatology.  
(Koo JY et al)



# INTRODUCTION

Brain and skin originate from the same germ layer, the embryonic ectoderm, and are affected by the same hormones and neurotransmitters





# INTRODUCTION

- Psychopathological factors can play an etiological role in-
  - the development of skin disorders,
  - can exacerbate pre-existing skin disorders,
  - dermatology patients may suffer the psychosocial consequences of disfigurement.

# INTRODUCTION

- Psychiatric and psychosocial comorbidity is seen in at least 30 % of dermatological pts.
- Psychodermatology focuses on the management of dermatology patients with psychiatric comorbidity.

# CLASSIFICATION OF PSYCHOCUTANEOUS D/O

## 1. PSYCHOPHYSIOLOGICAL DISORDERS

These are bona fide skin disorders exacerbated by stress.

Eg-atopic dermatitis, psoriasis, alopecia areata, urticaria and angioedema, acne vulgaris

## 2. PRIMARY PSYCHIATRIC DISORDERS

without "real" skin disease, but present with serious psychopathology and visible skin lesions that are self-induced.

1. Delusional D/O- delusional parasitosis,
2. Impulse-control disorder NOS- psychogenic excoriation, trichotillomania,
3. Factitious disorder- factitious dermatitis

## 3. SECONDARY PSYCHIATRIC

develop psychological problems as a result of skin disease and associated disfigurement

1. Adjustment disorder with anxiety and depression
2. GAD
3. MDD

## 4. CUTANEOUS SENSORY DISORDERS

have unpleasant sensations on the skin, such as itching, stinging, burning, or crawling, with no proven skin-based etiology

Undifferentiated somatoform disorder chronic idiopathic pruritis. Pain disorder idiopathic glossodynia

# CLASSIFICATION OF PSYCHOCUTANEOUS D/O

## 5. Psychotropic Medication for Nonpsychiatric Indications-

-category to describe the use of psychotropic medications in treating certain skin conditions.

-which may be more efficacious than traditional dermatological treatments.

-Eg- the antidepressant doxepin(TCA) is a more powerful antipruritic agent than traditional antihistamines

# STRESS AND SKIN D/O

- Most patients with skin disorder do not encounter undue distress.
- Some patients with chronic skin illnesses and appearance-altering conditions run the risk of-
  - Social Distress
  - Psychological Distress
  - Physical Distress.



# STRESS AND SKIN D/O

- The experience of psychosocial distress is variable depends on-
  - (1) the characteristics of skin disorder itself
  - (2) the individual characteristics of patients and his or her life situations
  - (3) cultural attitudes related to skin disease (stigma)

# STRESS AND SKIN D/O

(1) Skin d/o characteristics-

-The emotional reaction to a particular skin condition is variably affected by the patient's understanding of its origin.

# STRESS AND SKIN D/O

□ Factors include-

-The external appearance of skin lesions

-Associated symptoms

-The location of skin lesions

-The timing of skin disease onset

-The course of the skin illness

# STRESS AND SKIN D/O

## (2) Individual Characteristics

- Age and sex

- Personality

- Axis I psychiatric disorder

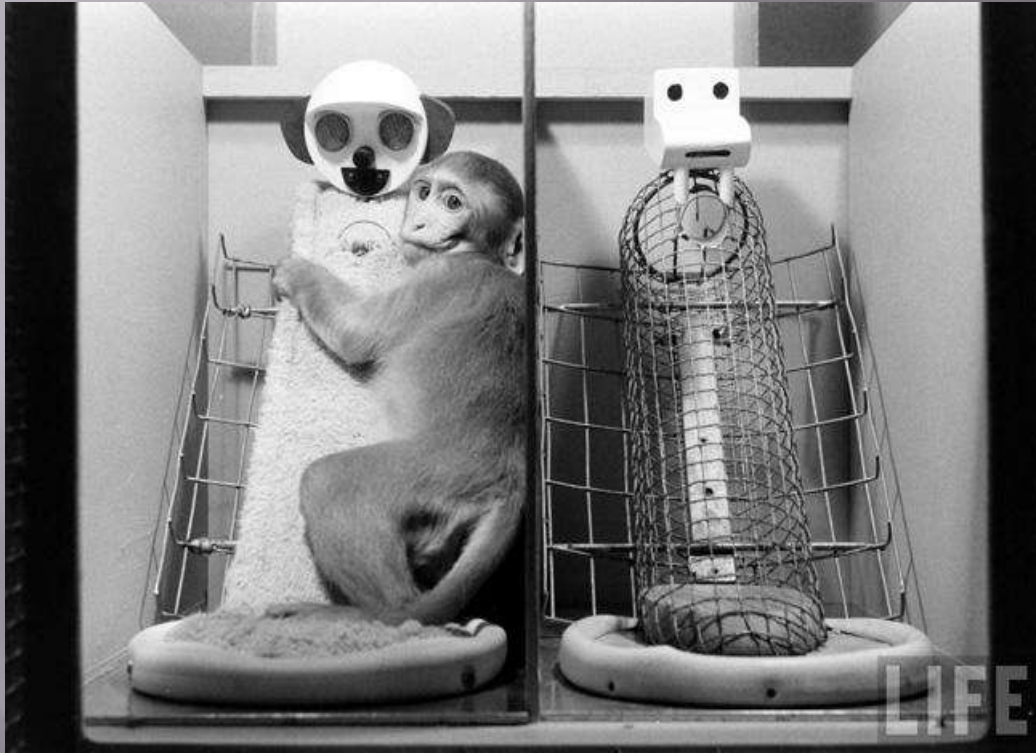
# STRESS AND SKIN D/O

## □ Disease-Related Stress in Childhood

-Cutaneous stimulation plays an important role for cell growth and differentiation and central nervous system (CNS) maturation throughout infancy.



# STRESS AND SKIN D/O



HARRY HARLOW EXPERIMENT OF MONKEYS

# STRESS AND SKIN D/O

- Childhood skin diseases like atopic dermatitis can influence a child's psychological development and personality.
- Allergic object relationship Model

# STRESS AND SKIN D/O

## □ The Mother–Child Relationship-

-Early studies indicated that maternal rejection was a common experience for the children.

-While recent studies acknowledge that mothers of children with atopic dermatitis react less emotionally and spontaneously to the child's emotion.

# STRESS AND SKIN D/O

- P. Langfeldt and K. Luys studied the mother's attitude of chronically ill, recently afflicted, and healthy children.
- They concluded that “a hostile rejecting attitude towards childbearing” can best be interpreted not as a cause of onset of disease, but more likely as its consequence

# STRESS AND SKIN D/O

## □ Body Image and Self-Schema-

-The greater the discrepancy between the perceived body and idealized body, the more body image dissatisfaction occurs, which is associated with lower self-esteem.



# STRESS AND SKIN D/O

## □ Relationships-

-Appearance can powerfully influence the chemistry of relationships.

-The onset of skin disease can result in physical disfigurement, discomfort, embarrassment, social stigma, Feelings of shame .

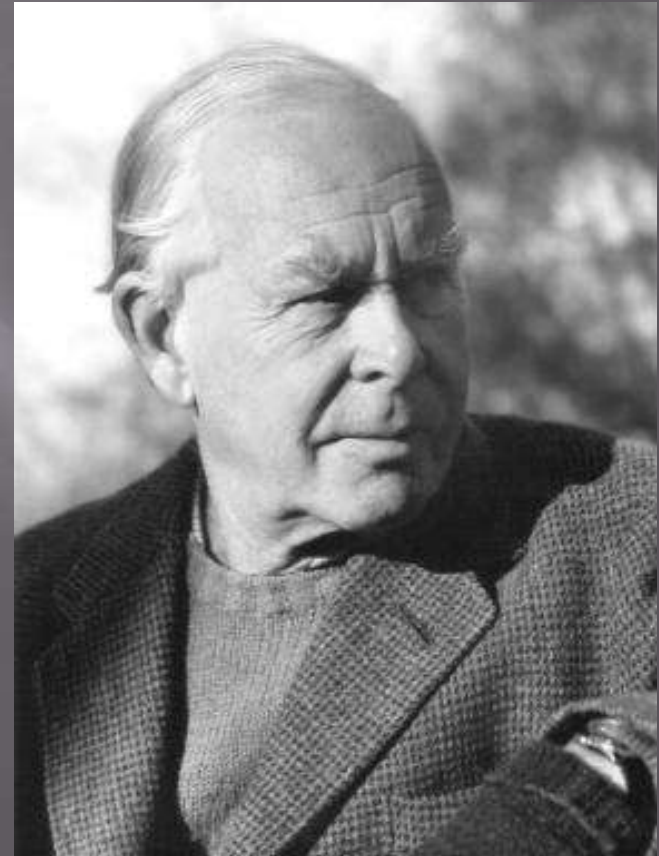
-Prone for more emotional conflicts, lack of support, and relationship dissatisfaction.

# STRESS AND SKIN D/O

Attachment Styles-

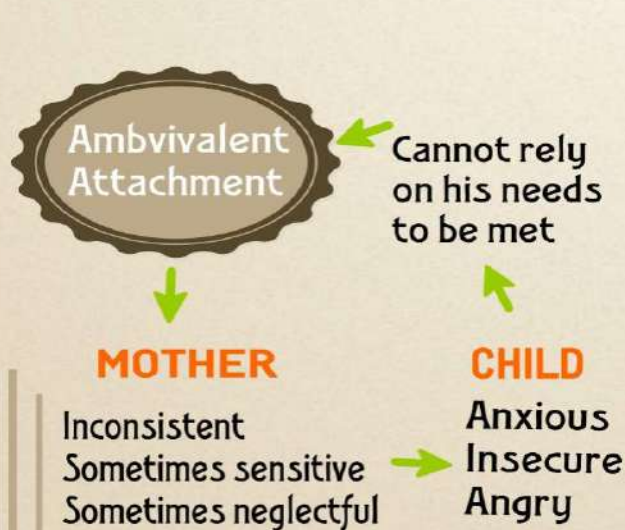
-Original attachment theory by **John Bowlby**

-Further developed by Cindy Hazan and Phillip Shaver in 1987.





# Attachment Styles



# STRESS AND SKIN D/O

## (3) Stigma About Skin Diseases-

-I. H. Ginsberg and B. G. Link explored the feelings of stigmatization in patients with psoriasis and grouped into six dimensions-

- Anticipation of rejection
- sensitivity to opinions of other

# STRESS AND SKIN D/O

- Feeling of being flawed
- Guilt and shame
- Secretiveness
- A more positive attitude that is unaffected by negative reactions of others



# STRESS AND SKIN D/O

- Psychoanalytic studies have described –
  - In unconscious terms, skin is supposed to wall off dirt, emerging from the body either in reality or symbolically.
  - Sigmund Freud referred to dirt as “matter out of body.”
  - The unconscious guilt about sexual urges may imply symbolical lack of control over inner dirt or “dirty thoughts and wishes,” and skin lesions are perceived as sign of impurity, contagion, danger, and punishment.



# PSYCHONEUROIMMUNOLOGY OF SKIN D/O

## □ STRESS AND ADAPTATION RESPONSE-

-The term general adaptation response was described by Hans Selye who proposed that organisms have the ability to adapt to acute changes in homeostasis.

Stress

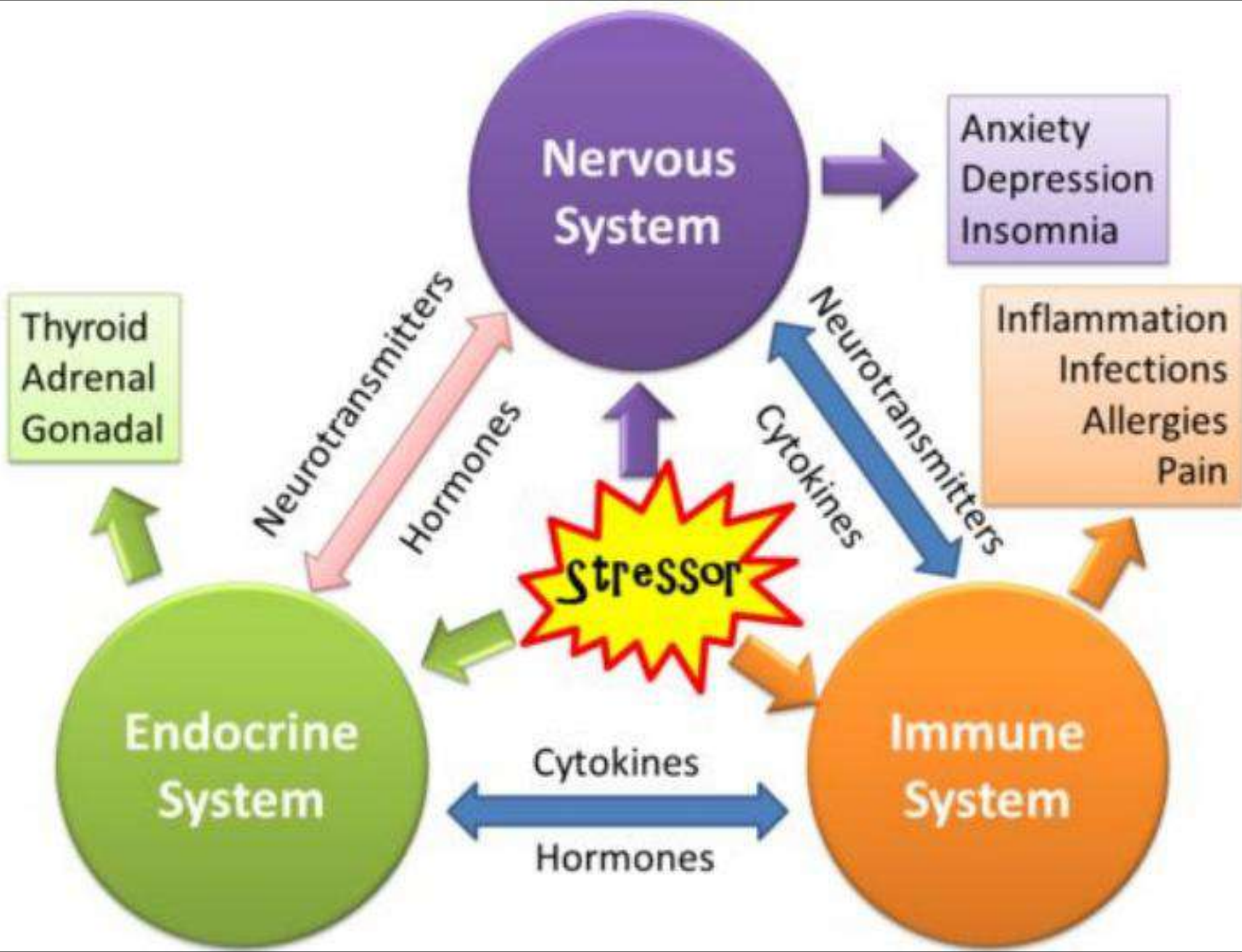
(psychological, biological, behavioral, or environmental)



Exhaustion of adaptation mechanisms

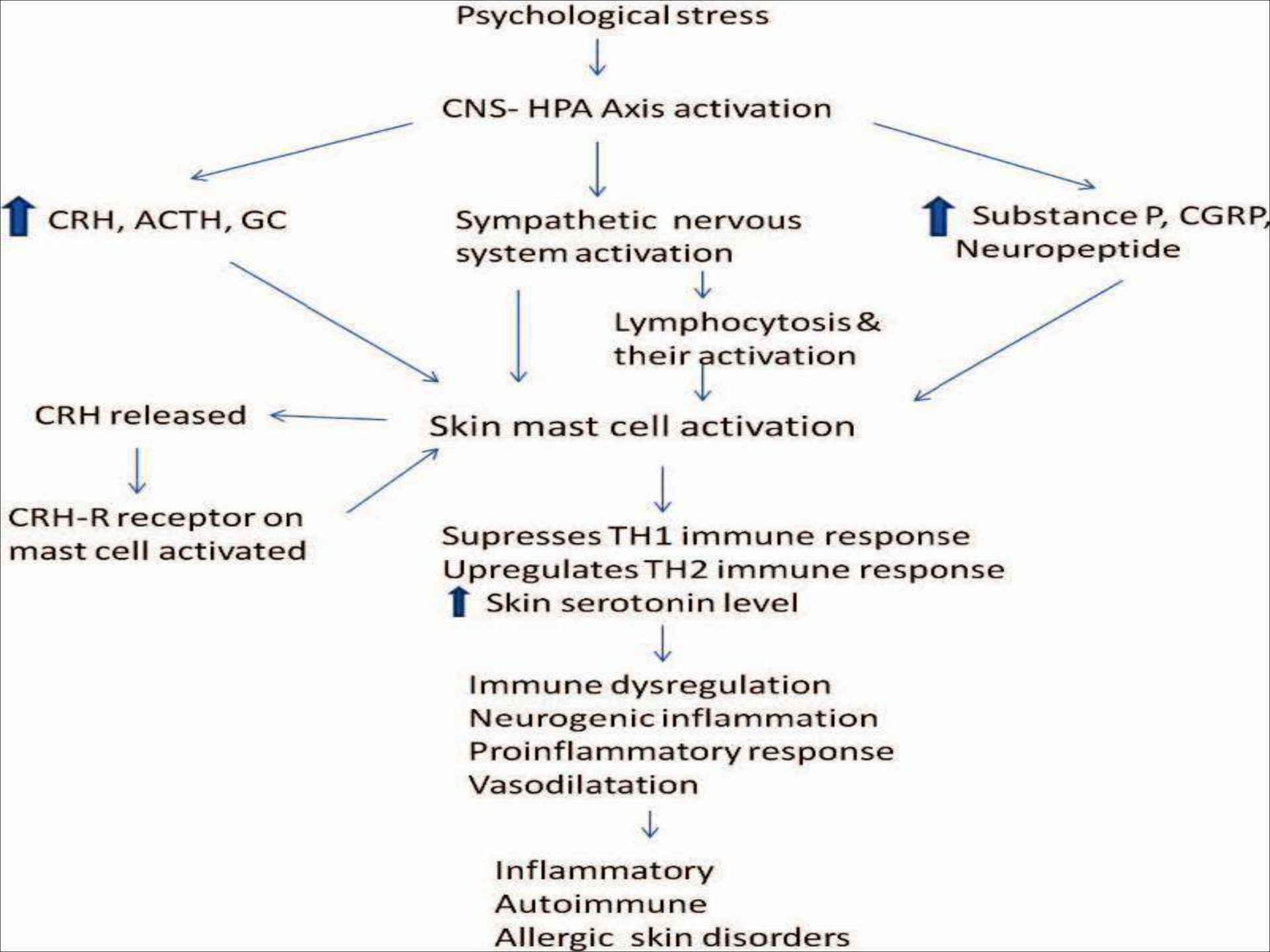


A disease response



# PSYCHONEUROIMMUNOLOGY OF SKIN D/O

- The body's stress-induced response, includes-
  - (A) Skin's sensory perception
  - (B) Neuroendocrine and autonomic systems
  - (C) Immunomodulation



# ATOPIC DERMATITIS

- Characterized by pruritus, mild to severe erythema, scaling, excoriation, and lichenification of the skin.
- Subsequent rubbing and scratching lead to lichenification and further itching and scratching cycle (itch-scratch cycle).
- Hygiene hypothesis





# ATOPIC DERMATITIS

## □ PATHOPHYSIOLOGY & ETIOLOGY-

1. Genetic factors

2. Environmental

3. psychoneuroimmunological mechanisms

# ATOPIC DERMATITIS

4. Lowered itch threshold
5. Opiate neuropeptide  $\beta$ -endorphins are increased
6. Altered HPA axis with lower cortisol levels
7. Increase catecholamine levels

# ATOPIC DERMATITIS

## □ PSYCHOPATHOLOGY-

1. Increased anxiety and depression
2. Higher traits of excitability and inadequate stress coping mechanisms
3. Serum IgE levels greater than 100 IU/mL have increased traits of excitability and inadequate coping

# ATOPIC DERMATITIS

4. The severity of pruritus found to be directly correlated with severity of depressive symptoms .
5. Depression and anxiety can magnify the itch perception and enhance the scratching behavior.
6. Adult patients with AD are found to have chronic anxiety disorders and a tendency to internalize anger in conflicted relationships.

# ATOPIC DERMATITIS

## □ TREATMENT-

-Reduction of itching or scratching

-Treatment of associated anxiety and depressive symptoms

-Improvement in conflicted relationships.



# ATOPIC DERMATITIS

- Behavioral modalities - habit reversal training
- Psychotropic drugs- topical 5 % doxepin cream found to be effective in reducing pruritus.
- Another antidepressant, trimipramine-improved sleep quality and reduced scratching during the night .
- Others- CBT, relaxation training, meditation, and stress management

# PSORIASIS

- A chronic, relapsing skin disease presenting with erythematous, scaling papules, and indurated plaques, arising preferentially on the elbows, knees, and scalp.
- Koebner's phenomenon: Rubbing and scratching stimulate the psoriatic proliferative process.





# PSORIASIS

## □ PATHOPHYSIOLOGY & ETIOLOGY-

1. Acute bacterial or viral infections
2. Drugs like lithium,  $\beta$ -adrenergic blockers
3. Psychological stress

# PSORIASIS

4. Psoriasis plaques are produced largely by the activity of hypertrophic keratinocytes & inflammatory changes in dermis
5. Neurogenic inflammation



# PSORIASIS

## □ PSYCHOPATHOLOGY-

1. High prevalence of GAD & MDD & comorbid personality disorders
2. Suicidal ideation – 7.2%
3. Psoriasis-related stress and Social deprivation

# PSORIASIS

4. The severity of pruritus is associated with higher depression scores and a greater risk for suicide.
5. The experience of being stigmatized
6. Early onset psoriasis has been associated with greater difficulties with expression of anger

# PSORIASIS

## □ TREATMENT-

-There are limited data on controlled trials of psychopharmacological treatments of anxiety and depression in psoriasis patients and its effect on the course of psoriasis.

-Hypnosis, meditation, CBT and guided imagery training

# ALOPECIA AREATA

- A common disease involving localized loss of hair in round or oval areas, without visible inflammation of the skin in hair-bearing areas.
- Breakage of the hair shaft presents as characteristic exclamation-mark hairs.
- The causes of AA remain unknown.



# ALOPECIA AREATA

- SP and its degrading enzyme neural endopeptidase (NEP) have been strongly expressed in affected hair follicles.
- Associations between AA and autoimmune disorders such as Hashimoto's thyroiditis.
- Prevalence of major depression was 8.8%



# ALOPECIA AREATA

- Other psychiatric morbidity- GAD, adjustment disorders.
- There are few studies involving psychiatric treatment of AA.
- The standard treatment of AA involves topical and intralesional steroid injections as well as systemic glucocorticoids.

# ALOPECIA AREATA

- Imipramine- 75mg/d
- SSRIs
- Relaxation techniques
- Stress management
- Psychotherapy

# ACNE VULGARIS

- Acne is an inflammation of the pilosebaceous glands in certain parts of the body.
- Results from changes in the keratinization pattern followed by dense keratin blocking of the secretion of sebum from sebaceous glands.



# ACNE VULGARIS

## □ PSYCHOPATHOLOGY-

1. Disfigurement - depression, social phobia, anger, and low self-esteem.

2. Chronological association was found between emotional stress and exacerbation of their acne lesions

# ACNE VULGARIS

3. Teenagers are vulnerable to develop social phobia and can feel inhibited in their lifestyle.
4. Interfere with their social interactions, sports activities, academic performance.
5. Depressive symptoms associated with acne are often in reaction to body image.



# ACNE VULGARIS

## □ TREATMENT-

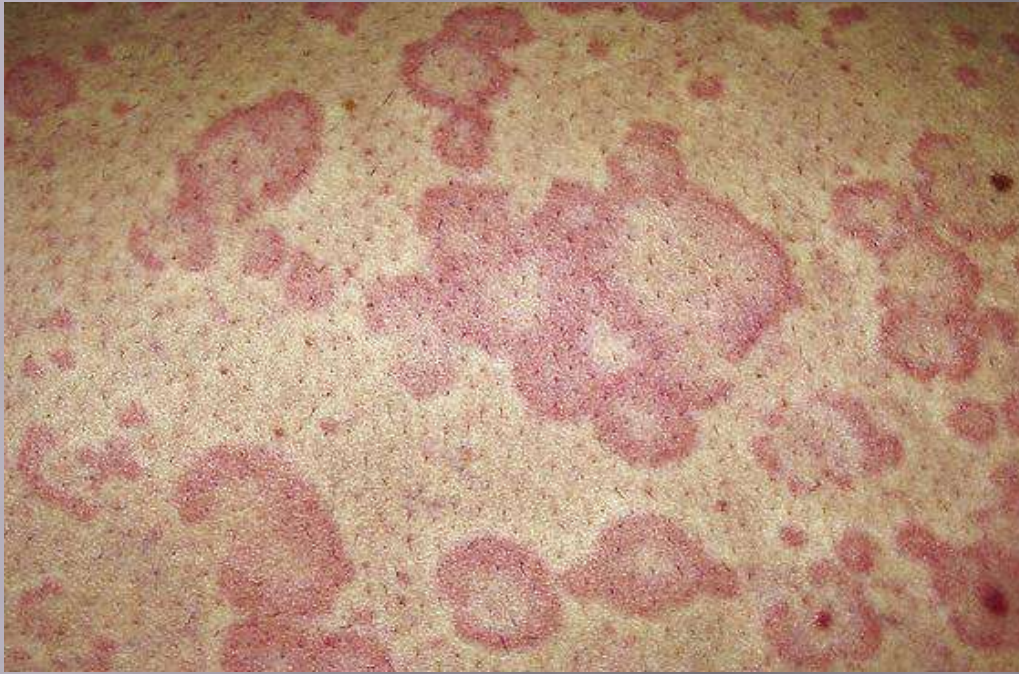
1. Educate and monitor each patient carefully, Since younger patients with acne vulgaris have a higher risk of developing depression, psychosocial stress, and suicidal ideation
2. CBT, relaxation training, self-hypnosis, and pharmacotherapy .

# ACNE VULGARIS

3. Use of isotretinoin in AV.
4. But the possible development of aggressive or violent behaviors could be there. But no studies confirmed it.
5. The depressed acne patients should always be assessed for suicide risk.

# URTICARIA & ANGIOEDEMA

- Urticaria is composed of wheals (hives), characterized by transient, well-circumscribed edematous papules and plaques, usually pruritic, and involves superficial (papillary) dermis.
- Angioedema is a large, deep, ill-defined edematous area that involves dermis and subcutaneous tissue.







# URTICARIA & ANGIOEDEMA

- The etiology is unknown in 80 percent of cases.
- Of particular interest is adrenergic urticaria, presenting as typical “halo-hives” (papules surrounded by white halo).
- This develops in response to acute emotional stress, usually associated with increased plasma levels of adrenaline and noradrenaline



# URTICARIA & ANGIOEDEMA

- Antidepressants like doxepin (10 mg three times a day) are more effective than diphenhydramine (25 mg three times a day) in controlling chronic angioedema.
- Improvement in urticaria symptoms with use of SSRI agents in patients with urticaria comorbid with panic disorder.
- Hypnosis and Relaxation.

# DELUSIONAL D/O, SOMATIC TYPE: DELUSIONAL PARASITOSIS

- Patients suffering from delusional parasitosis (DP) have the fixed belief that they have been infested with parasites.
- Also known as acarophobia, parasitophobia, entomophobia, monosymptomatic hypochondriacal psychosis, and Ekbom syndrome.

# DELUSIONAL PARASITOSIS

- “The matchbox sign” - some “bring the parasites” for further examination (usually pieces of hair, skin, or cloth).
- Pts attempts for self-treatment include repeated washing, checking and cleaning; excoriation of skin with needles, knives, or fingernails; discarding household items; and excessive use of insect repellents or insecticides.
- Relatives may share the delusion (folie a deux).



# DELUSIONAL PARASITOSIS

□ D/D-

1. Phobia

2. OCD

3. Psychogenic pruritis

4. The effects of certain drugs can mimic a delusion (“cocaine bugs” or “Magnan's sign,” , formication)

# DELUSIONAL PARASITOSIS

## □ PATHOGENESIS-

-It is a multifactorial process

-In which psychic, cognitive, and social circumstances act as disorder predisposing, triggering, and maintaining factors, respectively



# DELUSIONAL PARASITOSIS

## SUBGROUPS- 3

1. Patients with predominantly hypochondriacal traits

2. Patients with paranoid delusions and without hypochondriacal traits.

3. Patients with signs of both hypochondriacal as well as paranoid delusions

# DELUSIONAL PARASITOSIS

## □ TREATMENT-

-Patients with DP are reluctant to seek psychiatric treatment. It is important to establish rapport.

-Pimozide- 1-5mg/ d, for 5 mnths.

# DELUSIONAL PARASITOSIS

- T/T response from SSRIs, tricyclic antidepressants, and electroconvulsive therapy.
- Other antipsychotic medications risperidone , haloperidol, trifluoperazine , chlorpromazine have also been effective in uncontrolled trials.

# CUTANEOUS SENSORY D/O: UNDIFFERENTIATED SOMATOFORM D/O

- Also k/a- cutaneous dysesthesia syndrome.
- Conditions in which clinical symptoms include abnormal skin sensations (itching, burning, crawling, stinging, biting, pain) without the presence of primary skin lesions.

# CUTANEOUS SENSORY D/O: UNDIFFERENTIATED SOMATOFORM D/O

□ It includes-

1. Chronic Idiopathic Pruritus

2. Glossodynia

3. Vulvodynia

# CHRONIC IDIOPATHIC PRURITUS

- Pruritus is a common unpleasant sensation that provokes a desire to scratch.
- It can be caused by numerous medical (CLL, Syphilis), neurological (MS, Dementia), and psychiatric disorders (OCD, Psychosis).
- T/T- Doxepine, Amitriptyline, Psychotherapy



# NEUROGENIC PRURITIS

(1) lack of sudden onset, chronic course

(2) greater severity or intensity, unilateral or bilateral location

(3) association of pruritus with other sensory phenomena such as allodynia, dysesthesia, and hyperpathia

(4) paroxysmal course, often starting and ending abruptly, lasting seconds to minutes, and recurring frequently

(5) pruritus accompanied by paroxysmal constant pain in the same area, or awakenings from sleep or insomnia

# PSYCHOGENIC PRURITIS

(1) temporal association with psychiatric symptoms

(2) unlikely occurrence at night

(3) paroxysmal nature with increased severity, sudden onset and resolution, and intervening symptom-free periods.

# GLOSSODYNIA

- Present with chronic altered sensations of pain or burning affecting the tip and sides of the tongue (or other areas inside the oral cavity).
- Other associated sensory changes may include paresthesia, changes in taste and smell, and mouth dryness.
- Higher rates of anxiety and depression
- T/T-SSRIs and tricyclic drugs

# VULVODYNIA

- Vulvodynia is defined as “chronic vulvar discomfort that is characterized by the complaints of burning, stinging, irritation or rawness” in the absence of skin disease or infection.
- Higher prevalence of anxiety and somatic symptoms.
- T/T-Amitriptyline, desipramine, gabapentin, and pregabalin, CBT

# OBSESSIVE–COMPULSIVE AND RELATED DISORDERS: BODY–FOCUSED REPETITIVE BEHAVIORS

- Body-focused repetitive behaviors like excoriation (skin picking) disorder (SPD), TTM, and BDD are included under a new chapter Obsessive-Compulsive and Related Disorders (OCRD) (*Kaplan and Sadock's Comprehensive Textbook of Psychiatry, 10th Edition*)

Psychocutaneous Disorders	DSM-5 Classification	DSM-IV-TR Classification
SKIN PICKING DISORDERS (SPD)	Excoriation (skin picking disorder) (698.4) A new separate diagnostic group in DSM-5 under "Obsessive-Compulsive and Related Disorders" (OCRD)	Stereotypic movement disorder with self-injurious behavior (307.3)
TRICHOTILLOMANIA (TTM)	Trichotillomania (hair pulling disorder) (312.39) classified under OCRD	Trichotillomania (312.39) Classified under "Impulse Control Disorders Not Elsewhere Classified"
NAIL BITING D/O	Classified as an example of a "Body-Focused Repetitive Behavior Disorder" under Unspecified OCRD (300.7)	No specific diagnostic category
BODY DYSMORPHIC DISORDER (BDD)	Body dysmorphic disorder (300.7) Classified under "OCRD"	Body dysmorphic disorder (300.7) Classified under "Somatoform Disorders"

# PSYCHOGENIC EXCORIATION

- Characterized by excessive picking, scratching, digging, rubbing, gouging, or squeezing the normal skin or previously diseased skin.
- Also k/a skin-picking syndrome, emotional excoriations, nervous scratching artefact, epidermotilomania and paraartificial excoriations



# PSYCHOGENIC EXCORIATION

- The distribution of excoriations is mostly confined to accessible areas like face, arms .
- M/C psychiatric d/o- OCD, GAD, MDD, OCPD
- T/T- SSRIs- Fluoxetine, TCAs- clomipramine,
- For impulsive feature or comorbid bipolar disorder- lamotrigine or divalproex or atypical antipsychotics such as olanzapine.

# TRICHOTILLOMANIA

- François Hallopeau coined the term trichotillomania (TTM) in 1889
- Greek words tricho (hair), tillo (pull), and mania (fury).

# TRICHOTILLOMANIA

## SUBTYPES-

- 1. Focused pulling –use of an intentional act to control unpleasant personal experiences, such as an urge, bodily sensation (e.g., itching or burning), or thought. Considered as a compulsion.
- 2. Automatic pulling -occur outside the person's awareness and most often during sedentary activities. An impulse-control disorder



# TRICHOTILLOMANIA

- M/C Psychiatric morbidity- GAD,MDD
- Related to overactivity of cortico-striatal-thalamic-cortical (CSTC) circuits.
- T/T- Behavioral modification , SSRIs (fluoxetine, fluvoxamine, paroxetine, sertraline, citalopram, and venlafaxine)

# ONYCHOPHAGIA

- Onychophagia is chronic nail biting.
- It is a common behavior among children, beginning as early as 4 years of age.
- Have clinical features of repetition, resistance, and relief.
- T/T- clomipramine , habit reversal interventions.





# FACTITIOUS DISORDERS: FACTITIOUS DERMATITIS

- Also k/a dermatitis artefacta.
- A disorder in which skin is the target of self-inflicted injury and the patient uses more elaborate methods than simple excoriation to self-induce skin lesions.
- Present as an aggravation of dermatosis, targeting a variety of skin lesions including blisters, ulcers, erythema, edema, purpura, and sinuses

# FACTITIOUS DERMATITIS

- Presence of completely normal, unaffected skin adjacent to the horrific looking lesions
- The patient's description of history of the skin lesions is usually vague
- Lesions are usually located in areas easily reached by the dominant hand



# FACTITIOUS DERMATITIS

- M/C comorbid psychiatric condition is BPD.
- Female : Male- 8:1
- T/T- no controlled trials of treatment of factitious dermatitis. Effort to develop an empathic therapeutic relationship

# PSYCHOGENIC PURPURA

- Also k/a- Gardner-Diamond Syndrome.
- A rare dermatological disorder presenting as spontaneous repeated bruising following injury or surgery.
- Women are affected more frequently.
- Medical work-up, including hemostatic and blood coagulation tests, is normal.
- The proposed mechanism include conversion reaction, and factitious disorder.





# PSYCHOPHARMACOLOGY OF PSYCHOCUTANEOUS D/O

- Dermatological S/E of psychotropic medications are fairly common.
- Majority of them are benign and easily treatable.
- Most drug reactions are hypersensitivity reaction, some reactions are related to toxicity, overdose,

# DERMATOLOGICAL A/E OF PSYCHOTROPIC MEDICATIONS-

DRUGS	SKIN A/E
<p>A. MOOD STABILIZERS-</p> <p>Lithium Valproic acid Lamotrigine Carbamazepine</p>	<p>Hair loss, acne, nail pigmentation, exacerbation of psoriasis Hair colour change, lupus, scleroderma, skin vasculitis SJ Syndrome, toxic epidermal necrolysis, Angioedema, hypersensitivity reaction</p>
<p>B. ANTIDEPRESSANTS-</p> <p>Bupropion, Venlafaxin, Duloxetine, Mirtazapine, TCA, Vortioxetine, Vilazodone</p>	<p>Allergic reactions, excessive sweating Hair loss, Eythroderma, Erythema nodosum, Photosensitivity, Pruritis</p>
<p>C. ANTIPSYCHOTICS-</p> <p>Haloperidol, Phenothiazines, Clozapine, Risperidone, Olanzapine, Lurasidone, Plliperidone, Aripiprazole</p>	<p>SJ Syndrome, Photosensitivity, Erythema multiforme, Pruritis, Angioedema Eythroderma</p>

# STEVEN JOHNSON SYNDROME

- It was first described by Albert Mason Stevens and Frank Johnson.
- It is a rare but serious disorder that affects the skin, mucous membrane, genitals and eyes, usually caused by drugs.
- TEN (Toxic Epidermal Necrolysis) is a variant of SJS.
- PATHOPHYSIOLOGY- Considered as a T cell mediated d/o, delayed hypersensitivity reaction, keratinocyte cell death occurs.

# STEVEN JOHNSON SYNDROME

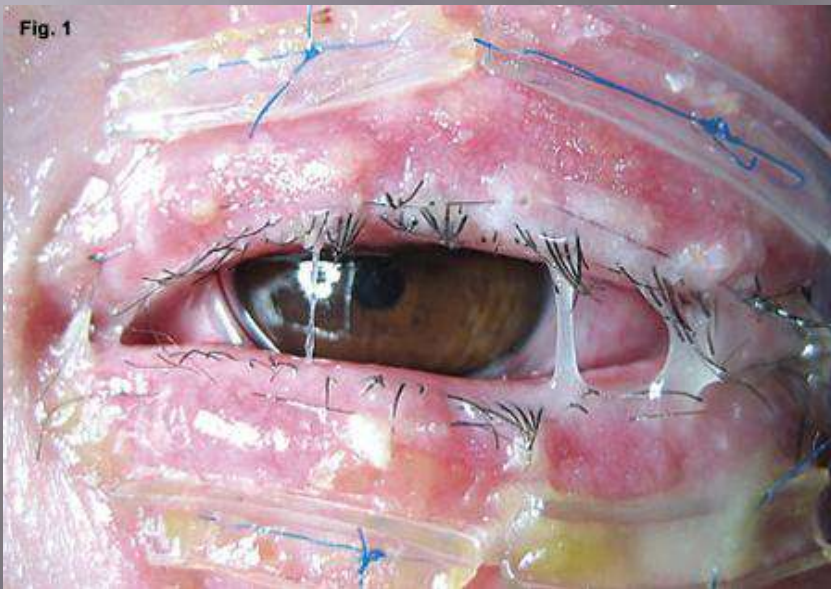
- SJS usually starts with fever and flu like symptoms.
- SEQUELAE-
  1. Musculocutaneous- scarring, pigmentation, loss of nails
  2. Ocular- corneal ulcer, symblepharon
  3. Others- genital, pulmonary, GI

# STEVEN JOHNSON SYNDROME

## PSYCHOTROPIC DRUGS CAUSING SJS-

- ❑ Lithium
- ❑ Valproic acid
- ❑ Lamotrigine
- ❑ Carbamazepine
- ❑ Phenytoin
- ❑ Phenobarbital





# STEVEN JOHNSON SYNDROME

## □ MANAGEMENT-

1. No specific t/t

2. Stop the drug

3. Symptomatic t/t-

- IV Fluids, corticosteroids, antibiotics, mouth washes, topical anaesthetics, IVIG

# CONCLUSION

- Psychocutaneous medicine involves several different types of D/O at the interface b/w dermatology and psychiatry.
- The Psychology of the dermatological pts is an under researched area.

# CONCLUSION

- Findings from psycho neuroimmunology are beginning to shed light on pathogenesis.
- Multidisciplinary collaboration between psychiatrists, psychologists, nurses and dermatologists is likely to improve outcomes and QOL in pts with psychocutaneous d/o.

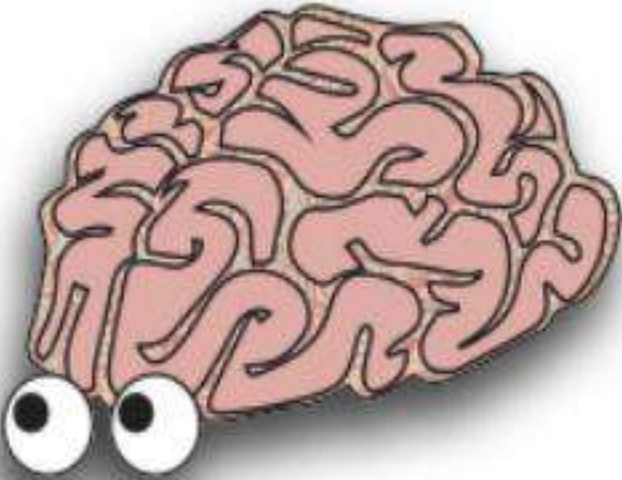
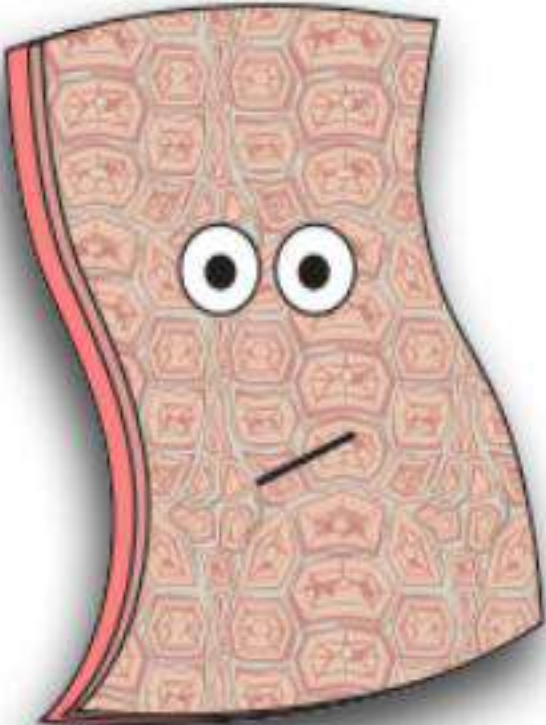
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**Skin, meet Brain. I understand the two of you have a lot in common.**



THANKYOU....