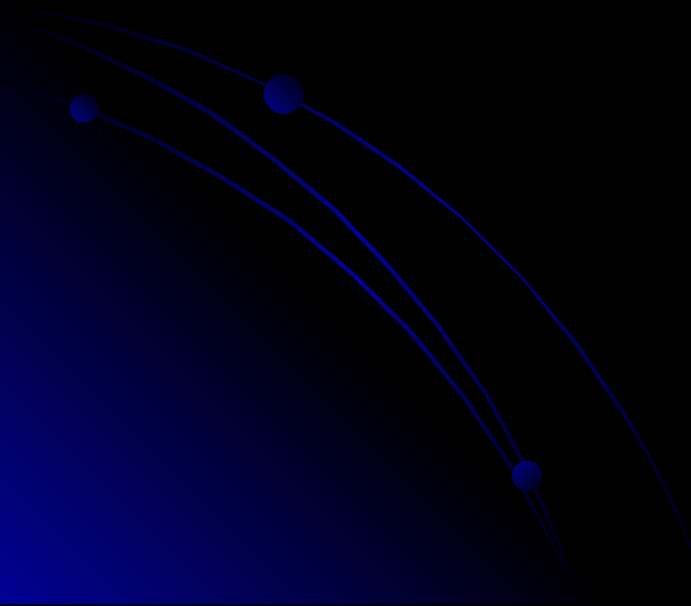


# *DERMATITIS*



# DERMATITIS

Dermatitis :- is inflammation of the skin affecting up to 20% of all new cases.

## Classification:-

1. Exogenous (contact dermatitis):- irritant , allergic , photo allergic , & infective dermatitis .
2. Endogenous dermatitis :- atopic D. , seborrheic D. , discoid D. , juvenile plantar dermatosis , pityriasis alba , gravitational eczema , asteatotic D. , lichen simplex chronicus , & pompholyx .

# Dermatitis

## Pathogenesis :-

The pathways leading to an eczematous reaction are likely to be common to all subtypes & to involve similar inflammatory mediators (prostaglandins , leukotriene & cytokines) .

Helper T cells , sometimes activated by super antigens from *staphylococcus aureus* , predominantly in the inflammatory infiltrate .One current view is that epidermal cytokines help to produce spongiosis ; & that their secretion by keratinocytes can be elicited by T lymphocytes , irritant , bacterial products & other stimuli .

# Dermatitis

## Clinical appearance :-

the different types of eczema share certain general features , these are :- absence of a sharp margin is important feature that separate it from most papulosequamous lesions .

## Acute eczema is recognized by its :-

1. Weeping & crusting .
2. Blistering usually with vesicles .
3. Redness , papules & swelling , usually with an ill-defined border .
4. Scaling .







# Dermatitis

## Chronic eczema :-

Chronic eczema may show all of the above changes but in general is :-

1. Less vesicular & exudative .
2. More scaly , pigmented , & thickened .
3. More likely to show lichenification ( dry , leathery thickened skin , with increased skin markings , secondary to repeated scratching or rubbing .
4. More likely to fissure .



# Atopic Dermatitis

**Atopy :-** is a genetically determined disorder in which there is increase liability to form IgE antibodies , & an increase susceptibility to certain diseases , especially asthma , hay fever , & atopic D. , in which such antibodies may play some role .

**Atopic dermatitis :-** is a chronic relapsing intensely itchy skin disease that occurs more commonly during early infancy & childhood . It is frequently associated with elevated serum IgE & personal or family history of atopic D. , allergic rhinitis & or asthma .

# Atopic Dermatitis

- Atopic dermatitis now affects approximately 10-20% of the population .
- The precise mode by which atopic D. is familialy transmitted remains uncertain . However , some studies suggest an autosomal dominant inheritance pattern . It was found that the prevalence of atopic D. in children was 80% when both parents had atopic D. & 55% when one parent had atopic D. .
- 60% of cases of atopic D. present in the 1<sup>st</sup> year of life.
- Some time onset delayed until childhood or adulthood.
- 70% of children with atopic D. will clear by their teens .

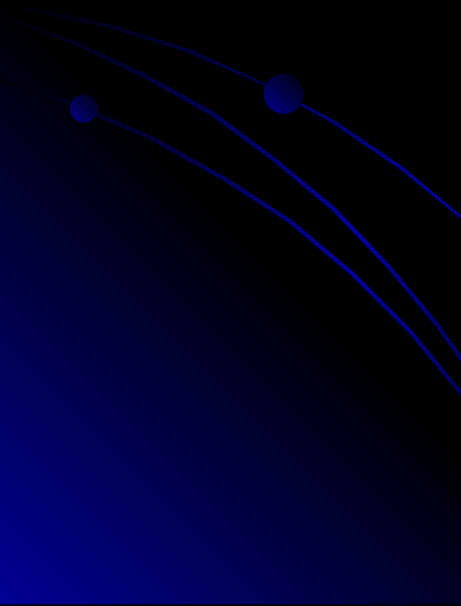
# Atopic Dermatitis

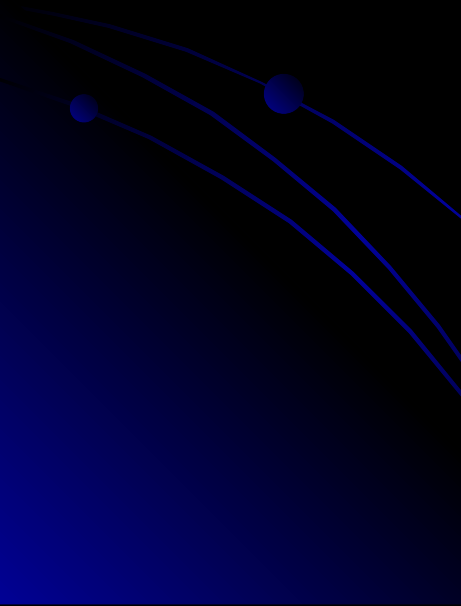
- Atopic dermatitis undergoes a clinical & histologic evolution from an acute eczematous eruption in early life to a characteristic lichenified dermatitis seen in older patients .
- Atopic D. can be divided into 3 stages :
  1. Infantile atopic D. :- occurring from 2 months – 2 years of age .
  2. Childhood atopic D. :- from 2-12 years .
  3. Adolescent & adulthood atopic D.
- In all stages pruritis is the hallmark of atopic D. . Itching often precedes the appearance of lesions so atopic D. is “ the itch that rash” .

# Atopic Dermatitis

## Infantile atopic dermatitis :-

- Eczema in infancy usually begins as an itchy erythema of the cheeks . The eruption may rapidly extend to other parts of the body , chiefly the scalp , neck , forehead , wrists , & extensor extremities .
- Moist lesions are the most common type in infant .
- Worsening of atopic D. is often observed after immunization & viral infection . Partial or complete remission in summer & relapse in winter are the rule . This may relate to the therapeutic effects of UVB in many atopic patients , & aggravated by wool & or low humidity of forced air in winter .





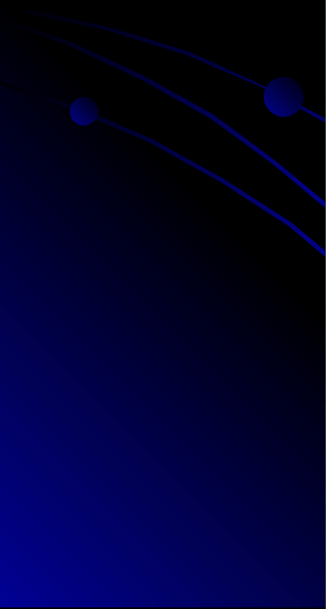
# Atopic Dermatitis

## Childhood atopic dermatitis :-

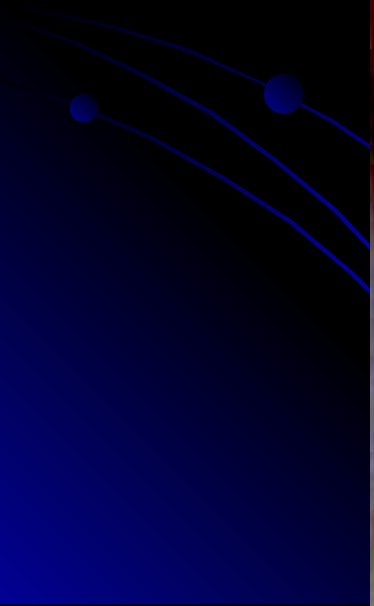
- Less acute lesions , such lesions are less exudative , drier , & more papular . Lesions are quite often lichenified , slightly scaly , or infiltrated plaques. The classic locations are antecubital & popliteal fossae , the flexor wrists , eyelids face , & around the neck .
- Wool , feather , cat & dog dander may exacerbate eczema .

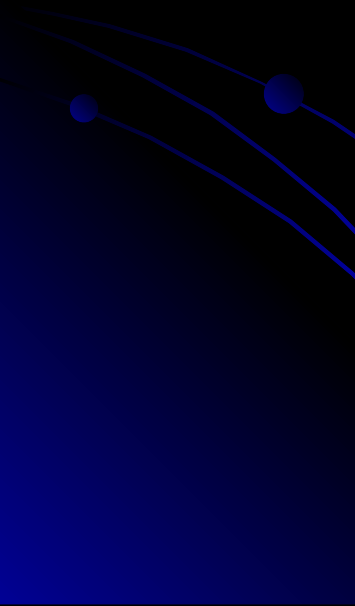
## Adolescent & adulthood atopic dermatitis :-

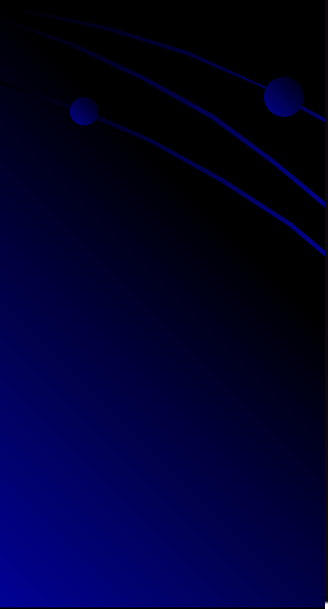
The distribution as in childhood with marked tendency towards lichenification & a more widespread but low-grade involvement of the trunk , face , & hands .











# Atopic dermatitis

- Atopic individual are at greater risk of developing hand dermatitis than are the rest of the population . It can affect both dorsal & palmar aspects .
- Complication of atopic dermatitis :-
  1. Overt bacterial infection .
  2. More prone to viral infection .
  3. Growth retardation .

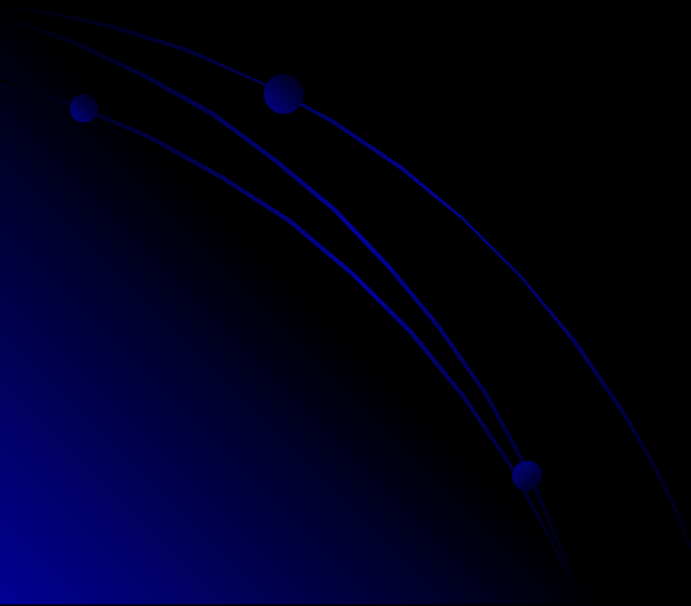
# Seborrheic Dermatitis

- Is a common , chronic , inflammatory disease with a characteristic pattern for different age groups . The yeast pityrosporum ovale probably is a causative factor , but both genetic & enviromental factors seen to influence the onset & course of the disease .
- Many adult patients have an oily complexion (seborrheic diathesis) .
- In adults , seborrheic dermatitis tend to persist , but it does undergo periods of remission & exacerbation .
- The extent of involvement among patients varies widely .

# Seborrheic Dermatitis

## Infantile seborrheic dermatitis :-

Infants may develop a greasy adherent scale on the vertex of the scalp . Scale may accumulate & become thick & adherent over much of the scalp & may be accompanied by inflammation .





# Seborrheic Dermatitis

## Adolescents & adults (classic seborrheic dermatitis) :-

- Most individual periodically experience fine , dry , white scalp scaling with minor itching ( dandruff) .
- Fine , dry or greasy , white or yellow scale may occur on an inflamed base . The distribution of scaling & inflammation may be more diffuse & occure in the seborrheic areas : scalp , scalp margins , eyebrows , base of eyelashes , nasolabial folds , external ear canals , posterior auricular folds , & presternal areas .
- The axillae , inframammary folds , groin , & umbilicus are affected less frequently .
- Scaling may appear when beard is grown & disappear when it is shaved .

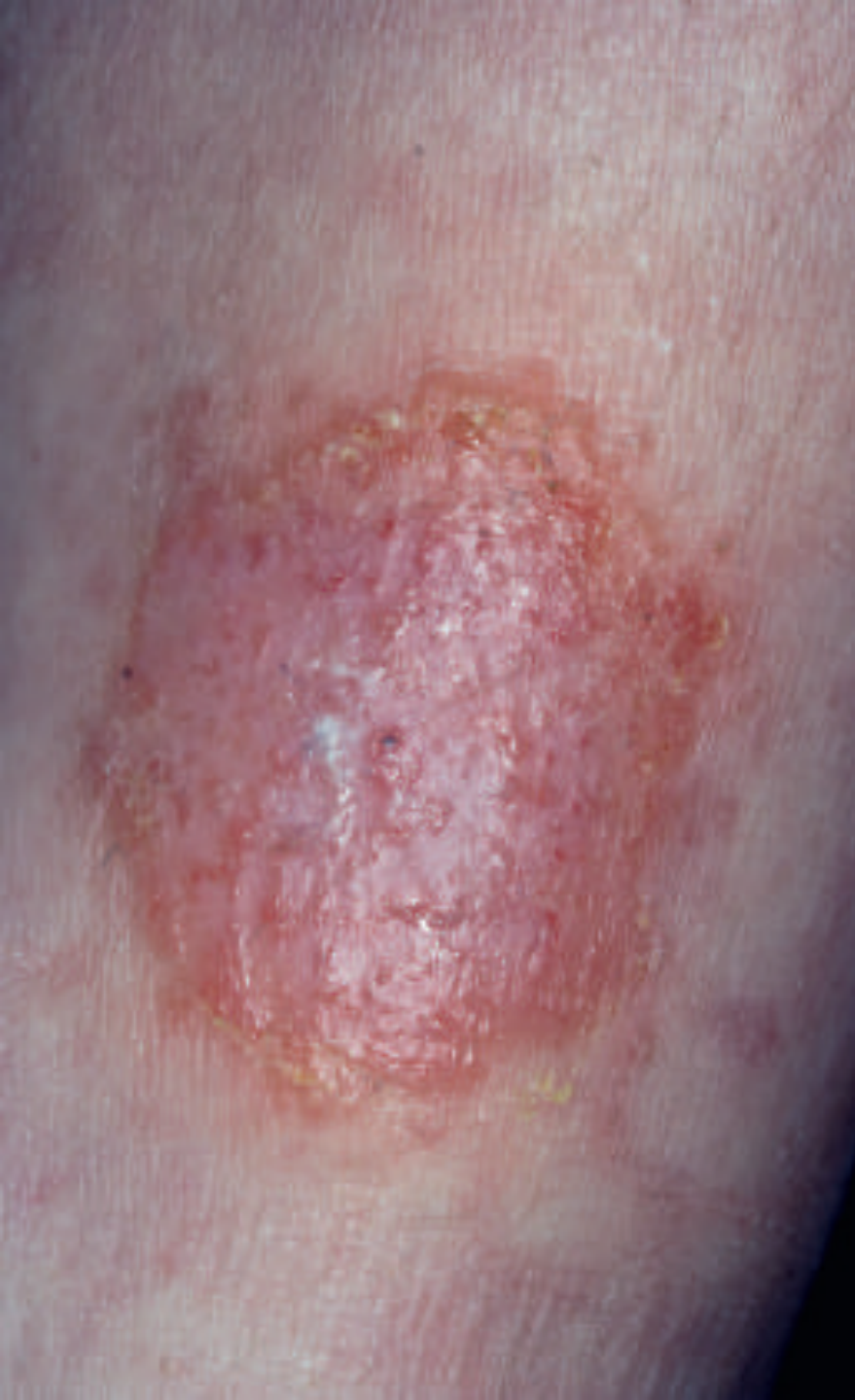






# Numular Eczema ( discoid eczema)

- It is eczema that appears as one or several coin shaped plaques .
- This pattern often occurs on the extremities.
- The number of lesions may increase , but once the lesions are established they tend to remain the same size .
- The inflammation is either subacute or chronic.
- Itching is moderate to intense . The cause is unknown .
- Differential diagnosis :- psoriasis .





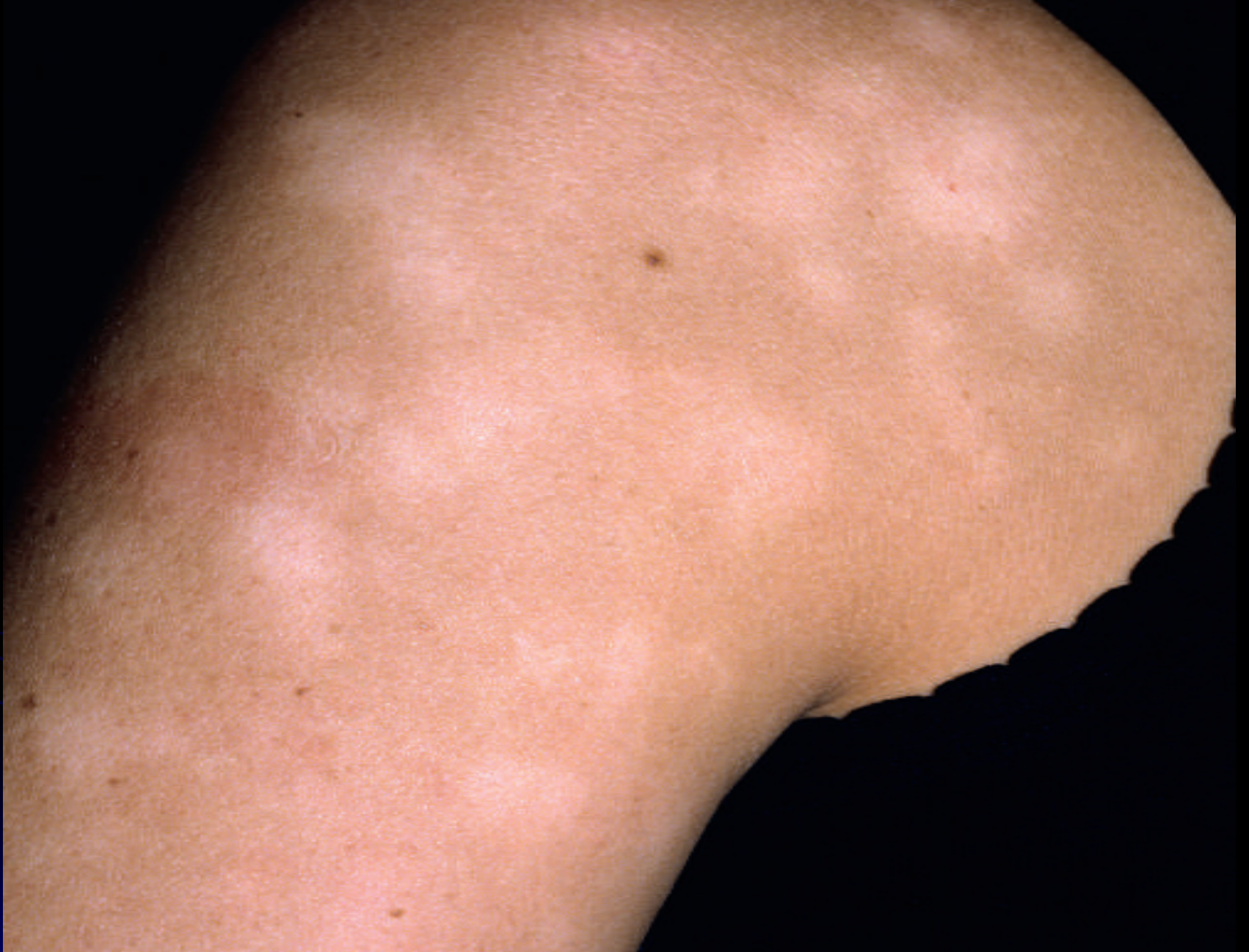
# Pityriasis Alba

- Characterize by scaly erythematous patches which subside to leave areas of hypopigmentation of unknown etiology .
- Pityriasis alba usually affect children between ages 3-16 years .
- Site : usually face but trunk & limbs could be affected
- Equal sex .
- Differential diagnosis :- vitiligo .









# Xerotic Eczema ( asteatotic eczema)

This type affecting mainly elderly associated with & possibly caused by , a decrease in the skin surface lipid , other contributing factors including the removal of surface lipid by overwashing & low humidity of winter & central heating .

Characterize by dry scaly skin & network of fine red superficial fissures .

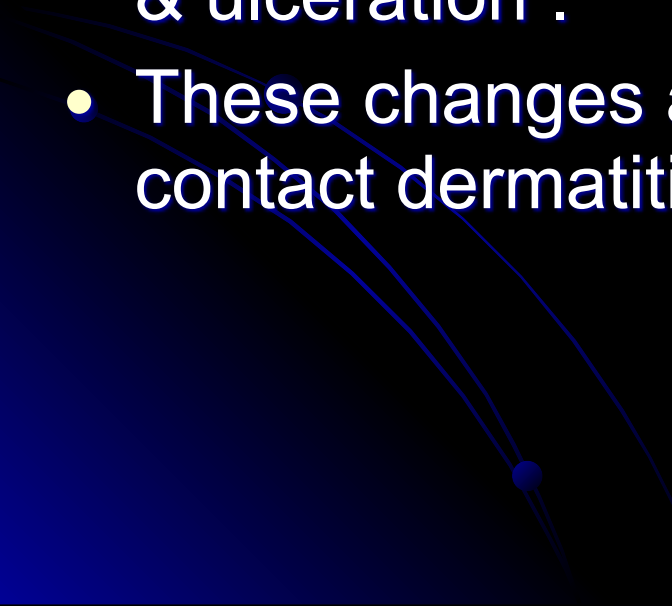


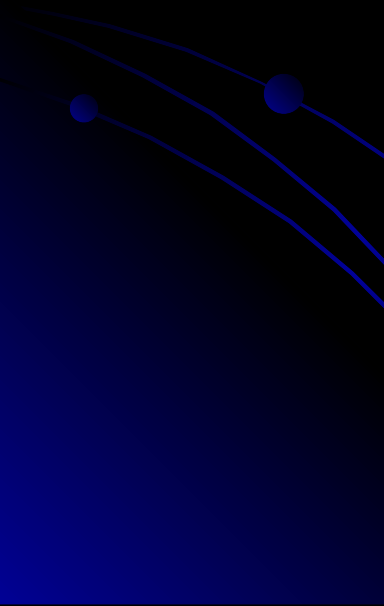






# Gravitational Eczema (stasis eczema)

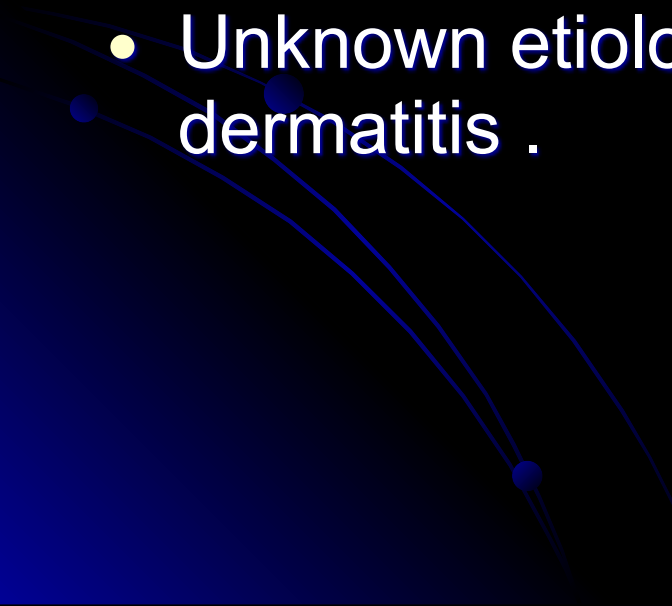
- Eczema secondary to venous hypertension .
  - Characterize by eczema on the inner aspect of lower legs , usually associated with dilatation of superficial veins , edema , purpura , diffuse brown pigmentation & ulceration .
  - These changes are often modified by secondary contact dermatitis & infection .
- 







# Juvenil Plantar Dermatosi

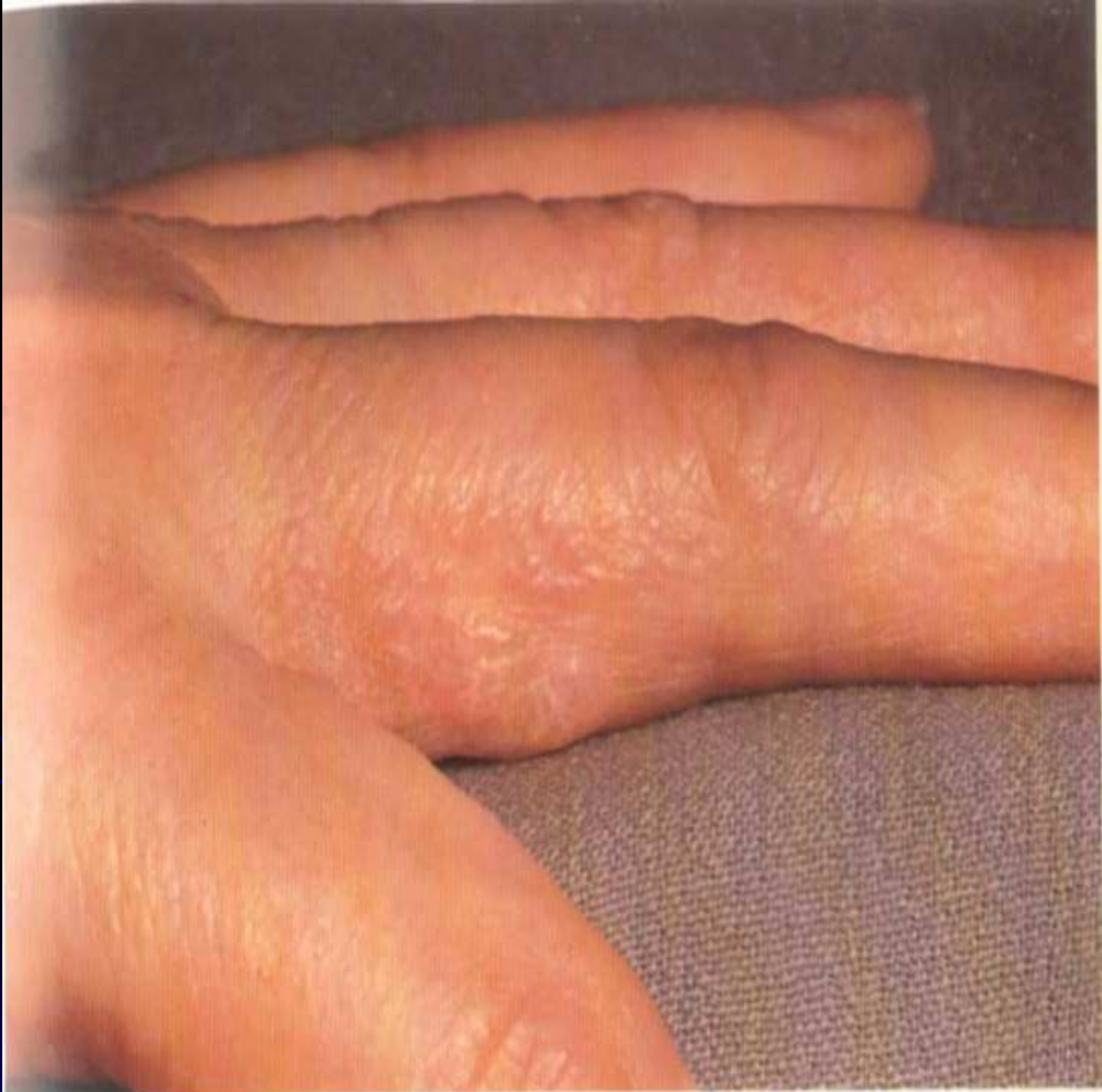
- This condition is characterize by dry , fissured dermatiti of the plantar surface of the forefoot .
  - It occurs almost exclusively in children aged 3-14 years .
  - Unknown etiologi , may be associated with atopic dermatiti .
- 

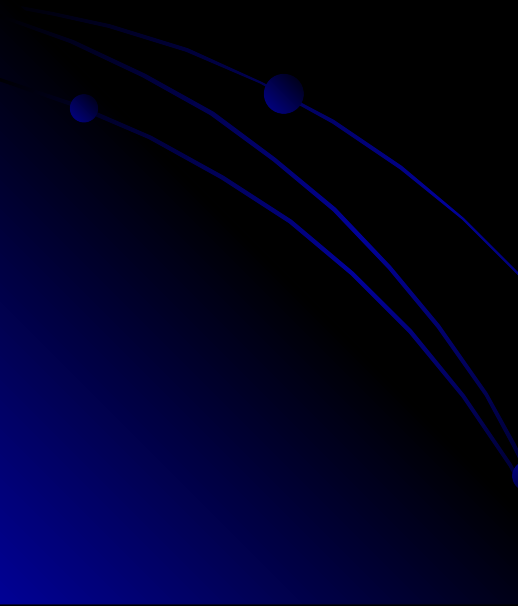


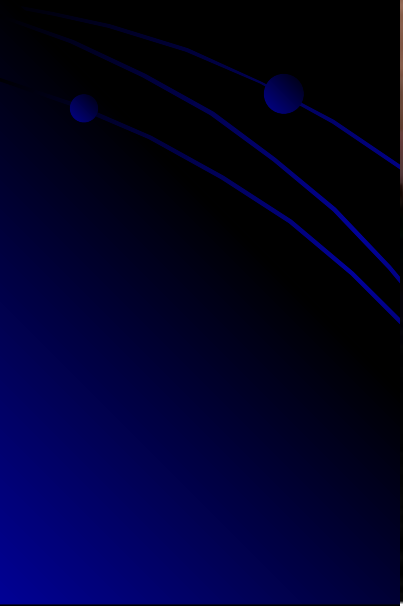


# Pomphlyx (dyshidrotic eczema)

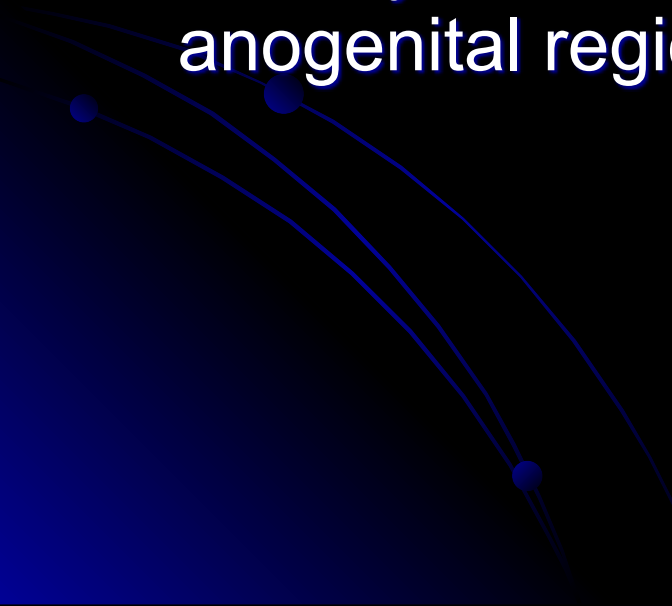
- Is a distinctive reaction pattern of unknown etiology presenting as symmetric , vesicular hand & foot dermatitis .
- Moderate to severe itching precedes the appearance of vesicles on the palms & side of the fingers .
- The palm may be red & wet with perspiration ; therefore name dyshidrosis .
- Differential diagnosis :- pustular psoriasis .



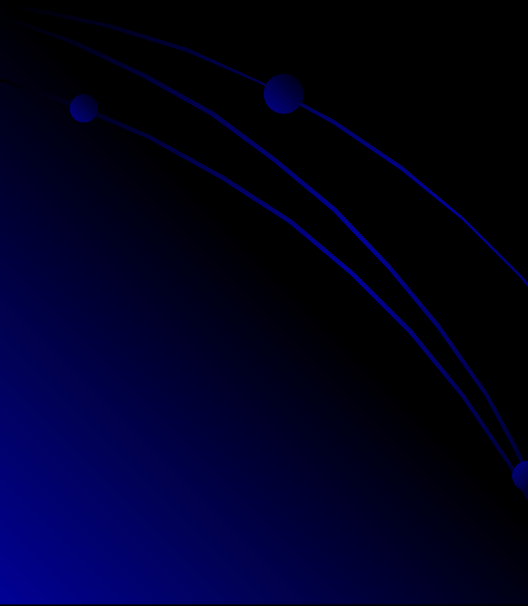


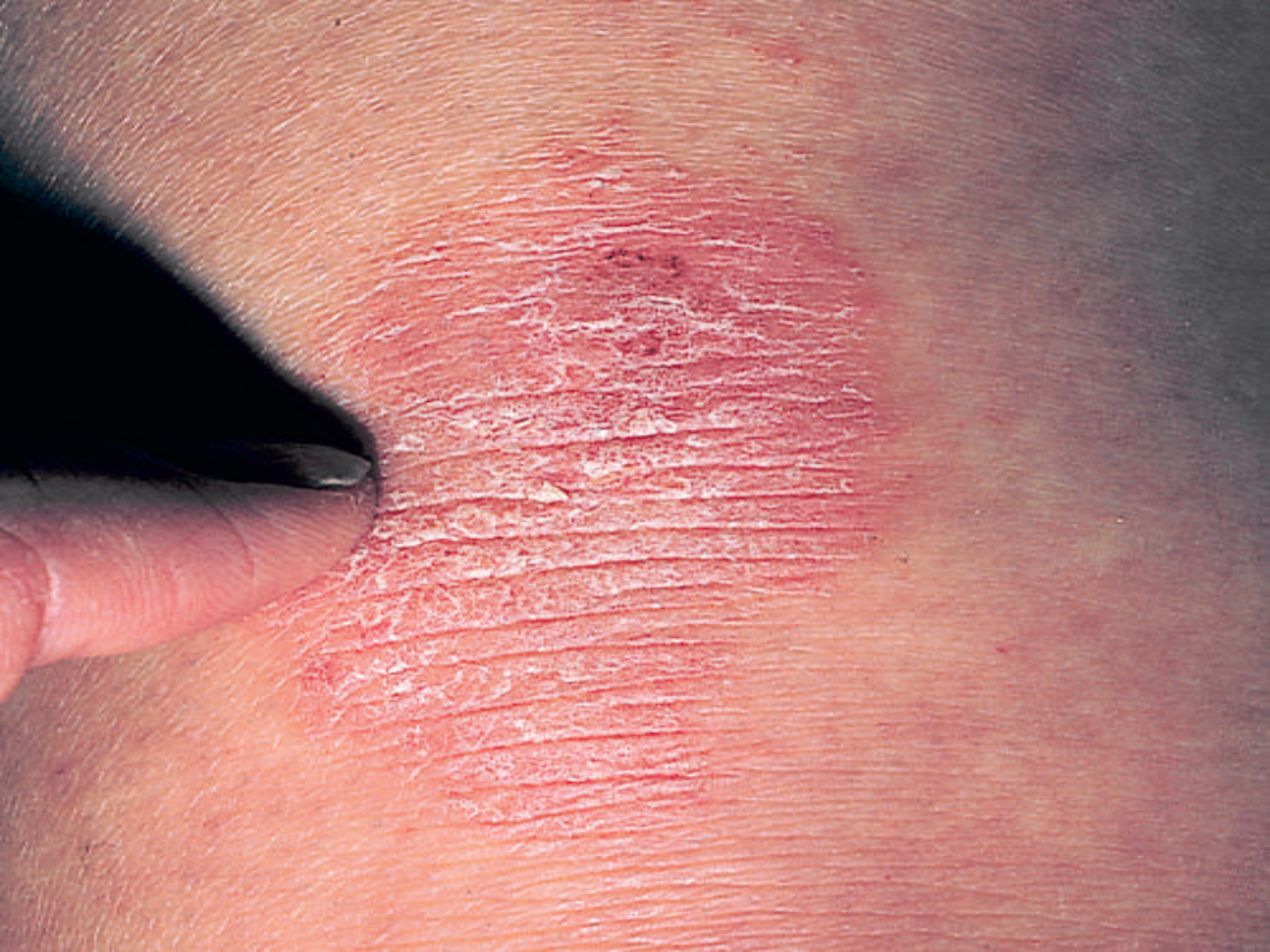


# Lichen simplex chronicus (neurodermatitis)

- Is a chronic localized eczematous plaque that is created by habitual scratching .
  - Usually affect nape of the neck in female , anogenital region in female & male , legs in male .
- 








# Exogenous (contact) Dermatitis

## Irritant contact dermatitis :-

- This account for more than 80% of all cases of contact D. due to direct irritant effect on the epidermal cells .
- Primary irritant :- is a substance which will produce dermatitis in any body if allowed to act for sufficient time at a sufficient concentration .
- Strong irritant elicit an acute reaction after brief contact , while weak irritant needs a prolong exposure , sometime over years to cause dermatitis .

# Exogenous (contact) Dermatitis

- Detergents , alkalis , solvents , cutting oils & abrasive dusts are common culprits .
  - There is a wide range of susceptibility ; those with very dry or fair skins are especially vulnerable . Past or present atopic dermatitis double the risk of developing irritant hand eczema .
- 

# Exogenous (contact) dermatitis

## Allergic contact dermatitis :-

The mechanism is that of delayed (type IV) hypersensitivity , it has the following features :-

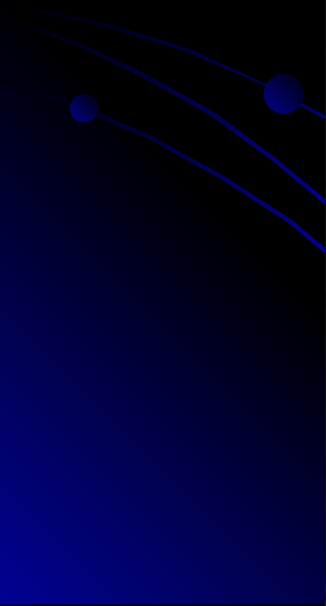
1. Previous contacts is needed to induce allergy .
2. It is specific to one chemical & its close relatives .
3. After allergy has been established , all areas of skin will react to the allergen .
4. Sensitization persist indefinitely .
5. Desensitization is seldom possible .

Most common allergen are chrome , nickle , cobalt , paraphenylenediamene , balsam of Peru , neomycin .

Diagnosis :- patch test .

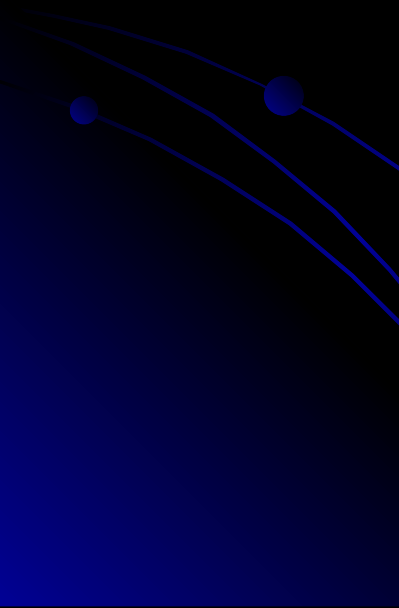














# Treatment

- In general :-

## A- topical treatment :-

1. Acute weeping stage :- a- bed rest . b- the use of drying agent in the forme of aluminium acetate solution soaks for 10 minutes\ 3 times daily or normal saline or diluted pottasium permenganate soaks . c- topical steroid in the form of lotion .
2. Sub acute stage :- steroid lotion or cream .
3. Chronic stage :- steroid ointment , but also non-steroidal application are helpful such as ichthamol & zinc paste .

# Treatment

## B- systemic treatment :-

1. Short course of systemic steroid may occasionally be justified in extremely acute , sever , & wide spread eczema particularly when the cause is known & already eliminated ( e.g. allergic contact dermatitis) .
2. Antihistamine may be helpful .
3. Systemic antibiotic if there is secondary bacterial infection . *Staph. Aureus* routinely colonizes all weeping eczema , & most dry one .

- **Specific treatment :-**

Contact dermatitis :- avoid exposure to irritant or sensitizing agent .

Atopic dermatitis :- educate the patient about

1. Avoidance of exacerbating factors such as irritant (e.g. woolen clothing next to skin) . Also avoid extreme temperature , & contacts with soap & detergents .
2. The regular use of emollients & bath oils .

Seborrheic dermatitis :-

1. Topical imidazole .
2. Medicated shampoo with ketoconazole or selenium sulphide .
3. Sulphur & salicylic acid in aqueous cream .
4. Itraconazole in unresponsive cases .

