ENDOGENOUS ECZEMA

FEW MCQS

- This secondary lesion develops when serum, blood or purulent exudate dries on the skin surface.

a) Crusts
b) Excoriation
c) Ulcer
d) Scale

- The best maintenance therapy in atopic dermatitis is

a) Emollients.
b) Topical tacrolimus
c) Topical glucocorticoids
d) Oral and topical antibiotics

- Infantile atopic dermatitis present as red skin topped by tiny vesicles over face

a) At birth
b) After 1 week of age
c) After 3 months of age
d) After 1 year of age

- A 15 year old child presented with sudden onset of many deep-seated pruritic, clear "sago grain-like"vesicles in both hands associated with severe itching. The probable diagnosis is

a) Scabies
b) Pompholyx
c) Herpes zoster
d) Irritant dermatitis

- A 29 year old female presents with dandruff and a rash on her face. On examination there is evidence of areas of erythema with fine greasy scaling over her nasal bridge, around her nasolabial fold and eyebrows and ears and on scalp. What is the most likely diagnosis?

a) Psoriasis
b) Contact dermatitis
c) Seborrheic dermatitis
d) Pityriasis versicolor

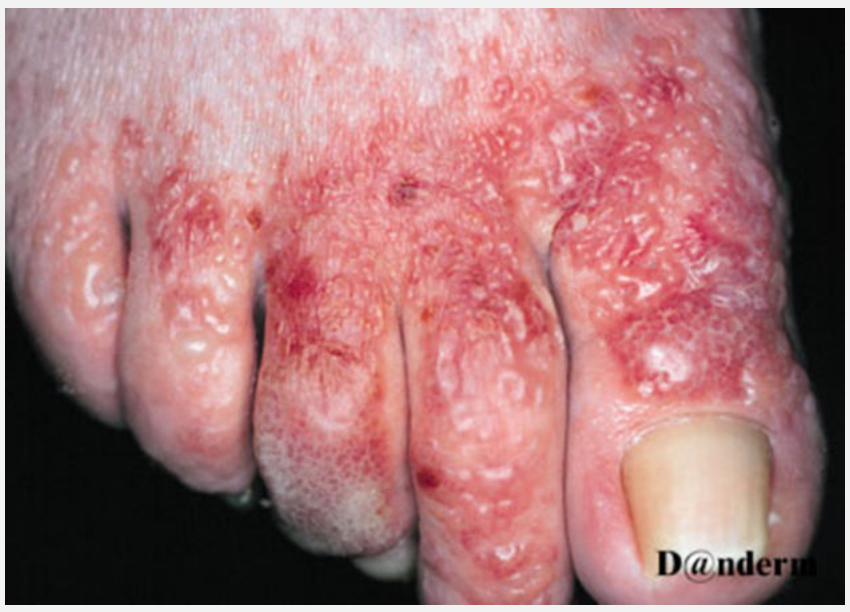
- A patient presents with papules which are greasy and brown over her chest. She also complains of greasy scales on scalp. She is otherwise well. What is the most likely diagnosis?

a) Seborrheic dermatitis
b) Atopic dermatitis
c) Pityriasis rosea
d) Guttate psoriasis

FEW BASIC CONCEPT

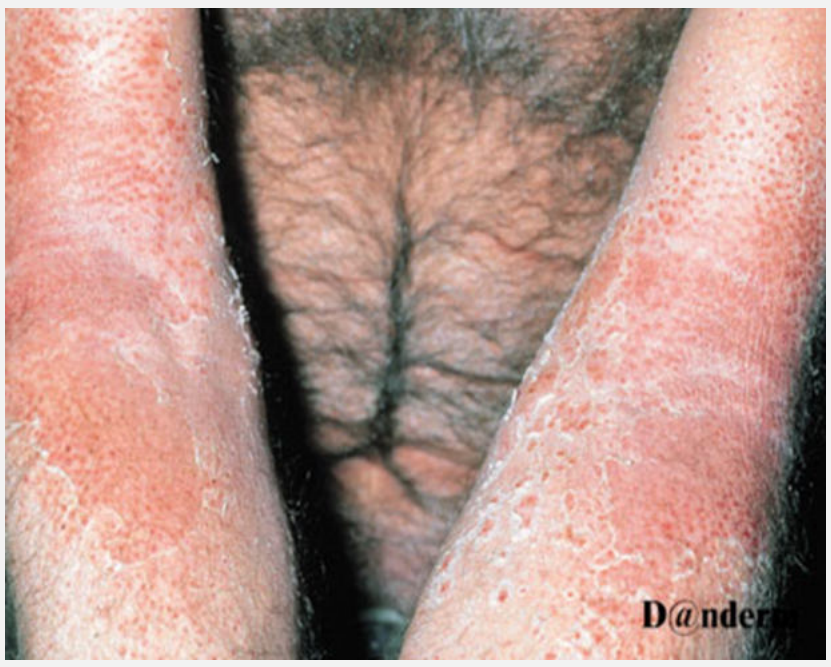
- The terms ‘eczema’ and ‘dermatitis’ used interchangeably
- Denotes a polymorphic inflammatory reaction pattern involving the epidermis and dermis.
- Wide range of etiologies of ‘Eczema’. Distribution of lesions differ acc. to the etiology
- Basic morphology of lesions in all etiologies remain same

ACUTE ECZEMA



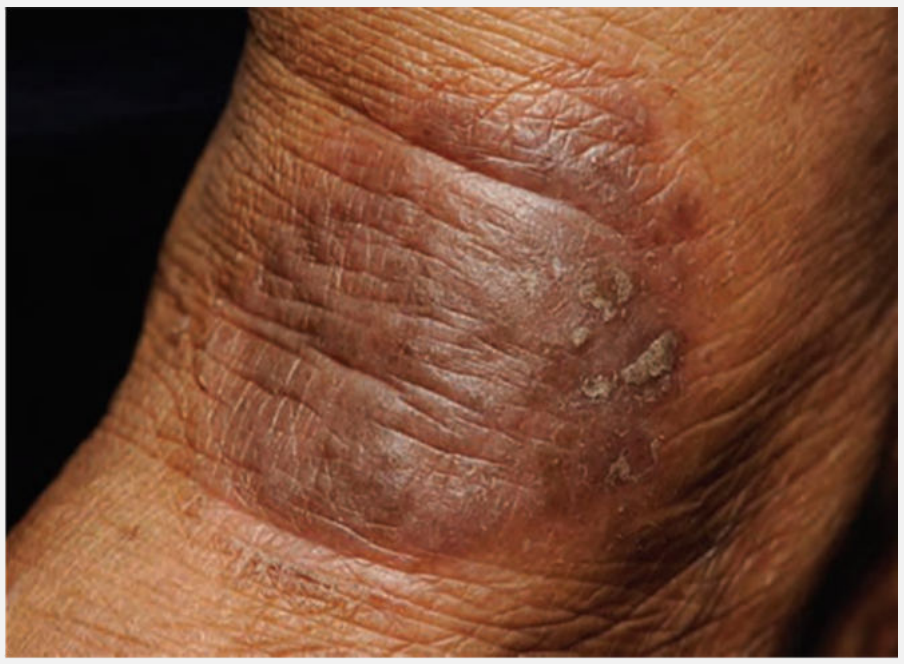
- Erythema
- Edema
- Oozing
- Papulovesicular eruptions

SUB ACUTE ECZEMA



- Erythema ↓
- Edema ↓
- Oozing ↓
- Scaling and crusting↑↑

CHRONIC ECZEMA

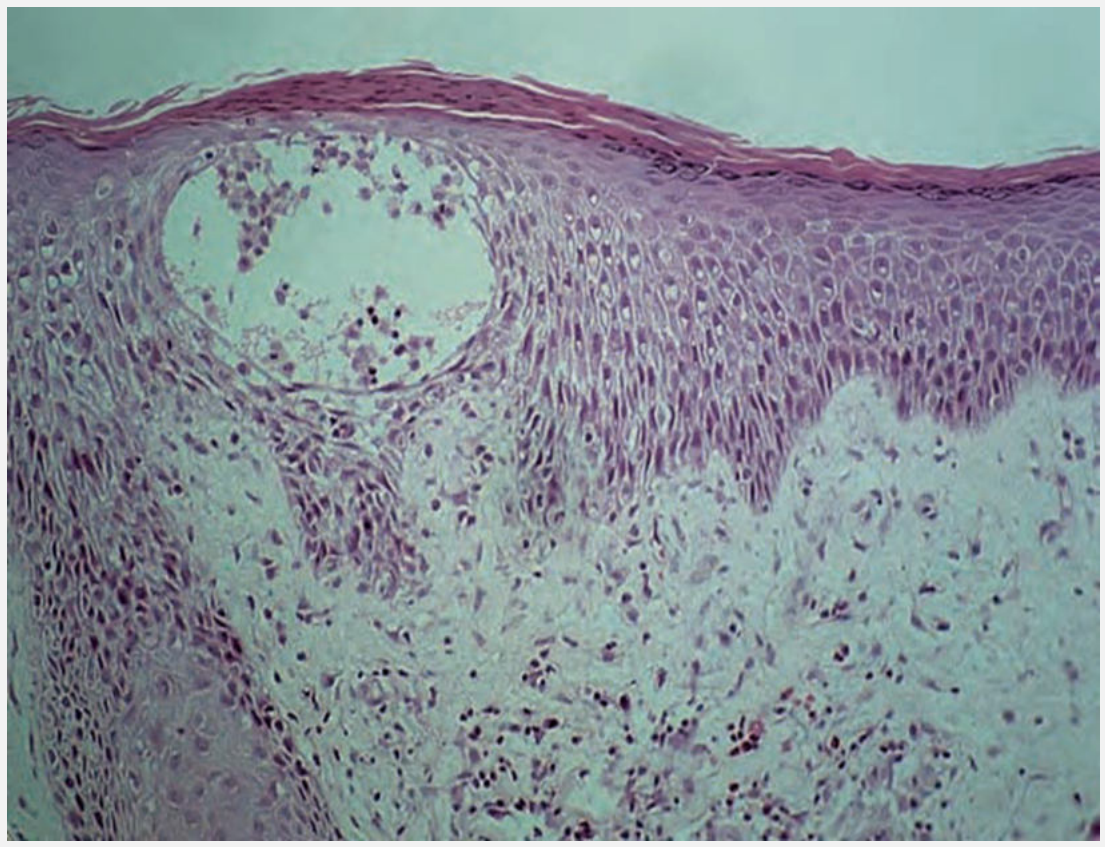


- Xerosis,
- Lichenification,
- Hyperkeratosis/Scaling,
- ±Fissuring.

HISTOPATHOLOGY

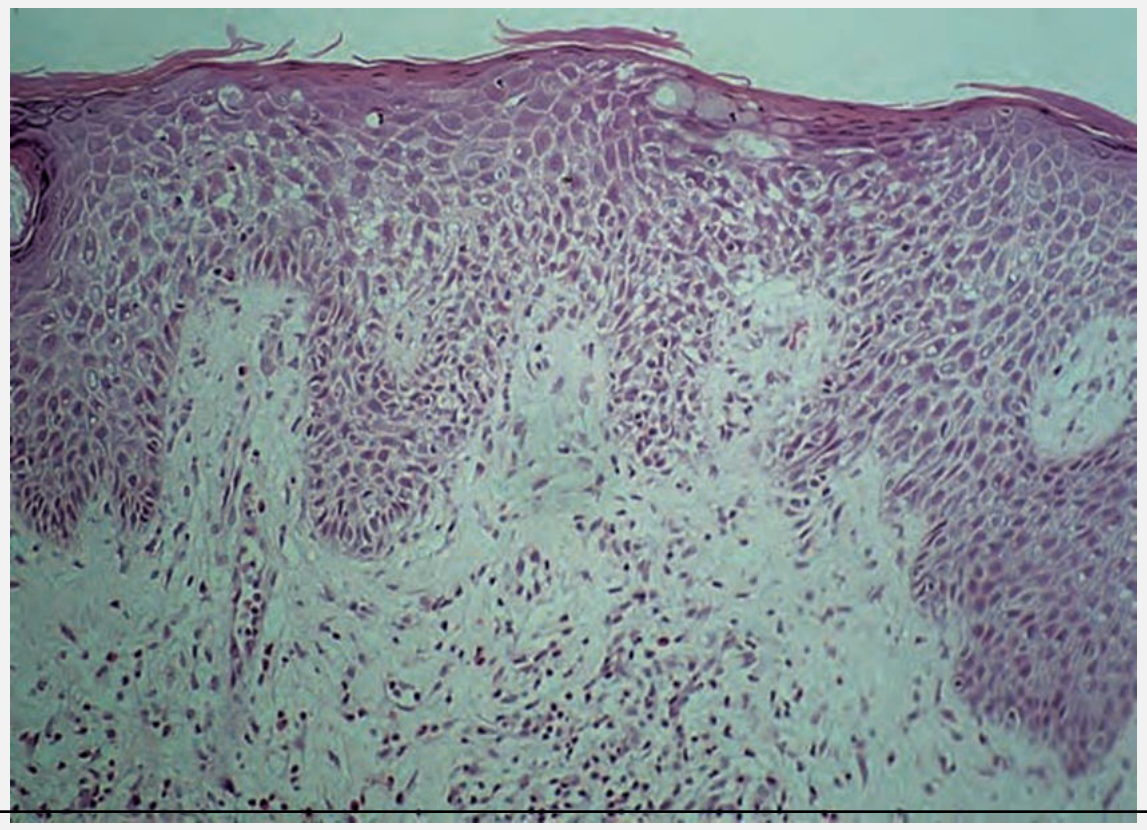
- SPONGIOSIS : an intercellular epidermal oedema that leads to stretching and eventual rupture of the intercellular attachments, with the formation of vesicles
- ACANTHOSIS: increase in thickness of epidermis – regular/ irregular
- HYPERKERATOSIS: increase in thickness of Stratum corneum
- PARAKERATOSIS : retention of nucleated cells in Stratum corneum

HISTOPATHOLOGY
ACUTE ECZEMA



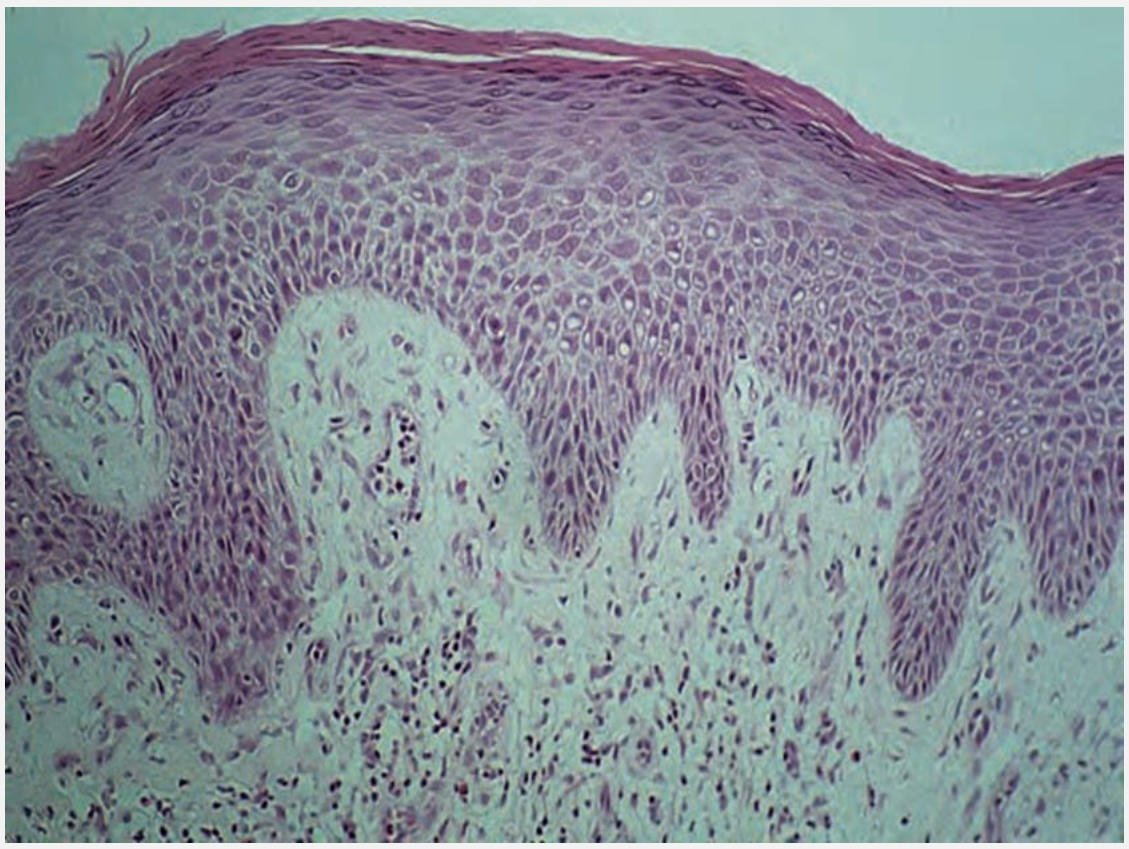
- The epidermis shows distinct vesicle formation due to “ spongiosis”
- Vesicle contains serum, and a moderate number of inflammatory cells.

SUBACUTE ECZEMA



- Irregular acanthosis
- Patchy spongiosis with the formation of incipient microvesicles.
- Few lymphocytes are migrating up from the dermis into the epidermis

CHRONIC ECZEMA



- Compact hyperkeratosis,
- Patchy parakeratosis
- Irregular acanthosis.
- Mild spongiosis is seen throughout
- Lymphocytic infiltrate in the upper dermis

CLASSIFICATION
(acc. to etiology)

ENDOGENEOUS

1. Atopic dermatitis
2. Seborrhoeic dermatitis
3. Nummular eczema
4. Stasis dermatitis
5. Asteatotic dermatitis
6. Pityriasis Alba
7. Dyshidrotic eczema
8. Lichen Simplex Chronicus

EXOGENEOUS

1. Irritant dermatitis
2. Allergic dermatitis
3. Photodermatitis
4. Infective dermatitis
5. Post traumatic dermatitis

ATOPIC DERMATITIS

- Itchy, chronic, relapsing inflammatory skin condition, often starts in early childhood (< 2 years)
- Characterized by erythema, itchy papules and / or papulovesicles, may become excoriated and lichenified,
- Typically has a flexural distribution

HANIFIN AND RAJKA'S Diagnostic Criteria Of Atopic Dermatitis
UK refinement

- Itchy skin condition (parental report of scratching /rubbing in a child)
- Plus three or more of the following:
  - Onset below age of 2 years
  - History of skin crease involvement (including cheeks in children under 10 years)
  - History of a generally dry skin
  - Personal history of other atopic disease (or history of any atopic disease in a first-degree relative)
  - Visible flexural dermatitis (or dermatitis of cheeks/forehead and outer limbs in children under 4 years

AETIOLOGY & PATHOGENESIS

➢ **Genetic susceptibility**

1. Familial - ATOPY
2. Precise mode of inheritance unknown

➢ **Defective Skin Barrier**

1. Increased TEWL
2. Easy entry of allergen, antigens from environment

➢ **Immunological changes**

1. Abnormalities in lymphocytes

Acute – Th2 cytokines

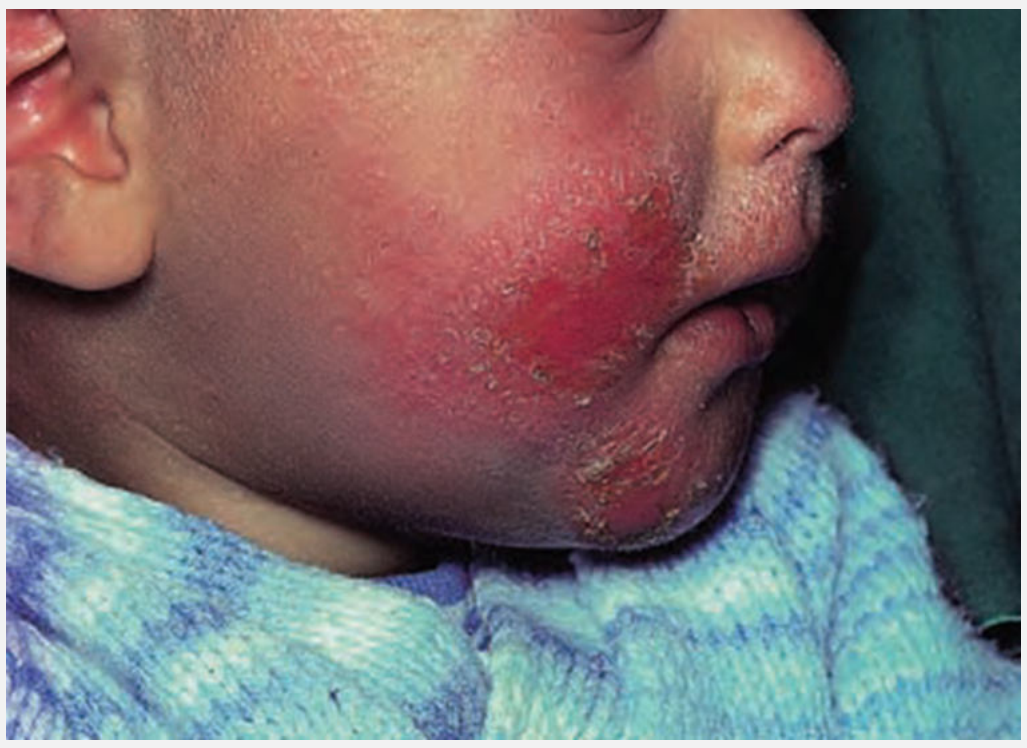
Chronic – Th1 cytokines

➢ **Abnormalities of IgE**

1. Elevated levels

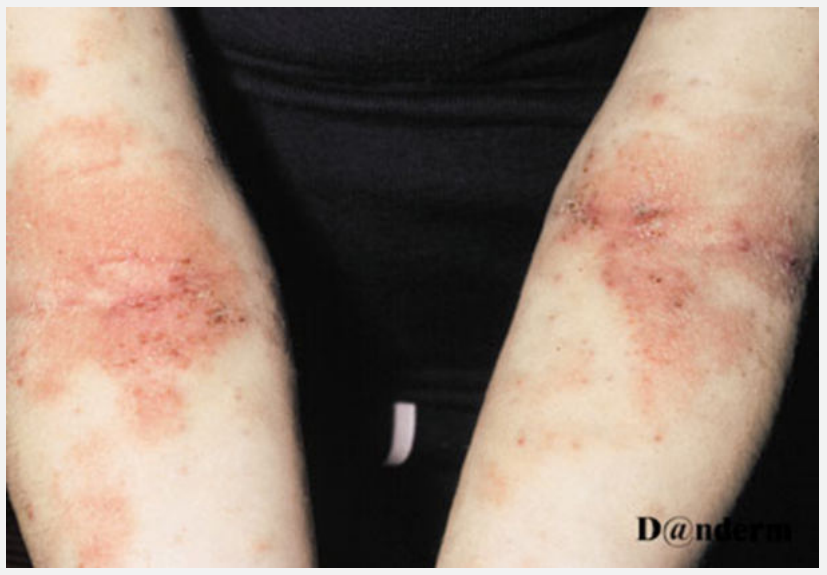
INFANTILE PHASE
(2 MONTHS- 2 YEARS)

- Frequently start on the face
- Erythema and edematous papules, intensely itchy, ± exudative and crusted
- As the child begins to crawl, the extensor aspect of the knees & elbows are most involved.
- Secondary infection, lymphadenopathy common



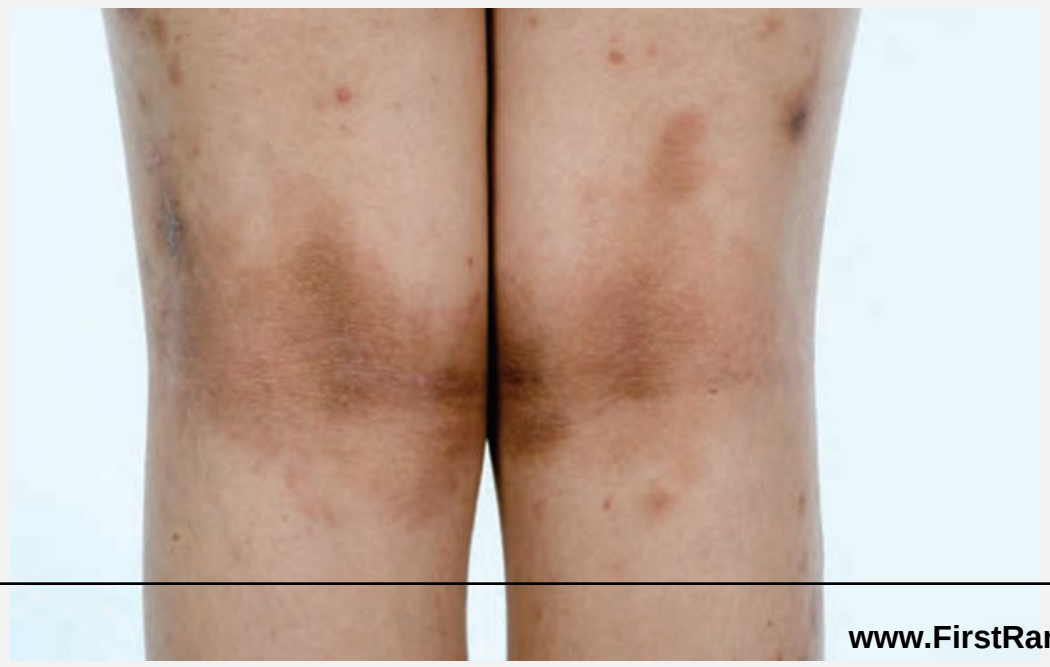
CHILDHOOD PHASE
(2-12 YEARS)

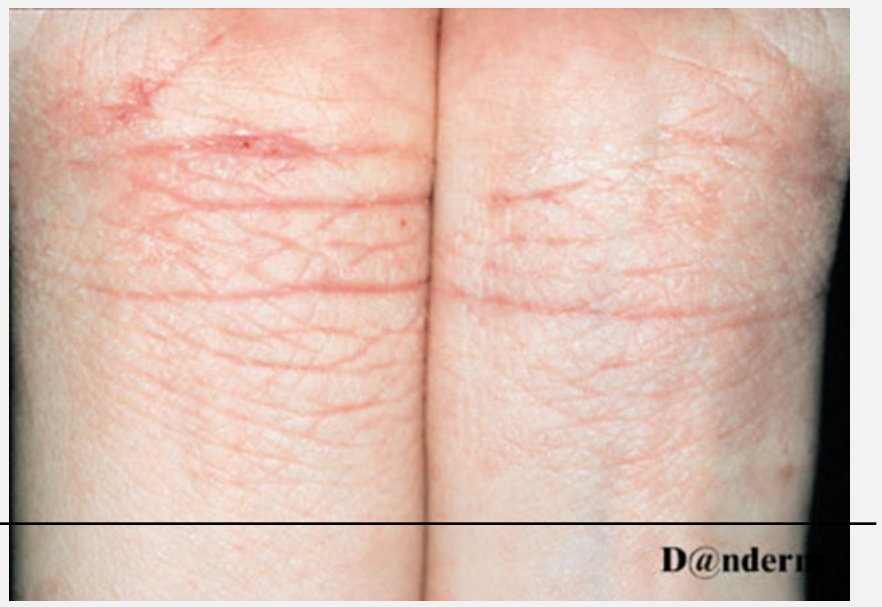
- Sites- elbow, knee flexures,
- sides of the neck,
- wrists and ankles.
- Erythema, crusting, excoriation, hyper- and hypopigmentation, and lichenification
- sides of the neck may show a striking reticulate pigmentation: 'atopic dirty neck'
- Itching intense.



ADULT PHASE
(12 YEARS AND MORE)

- similar to that in later childhood, with predominant lichenification, especially the flexures and hands.



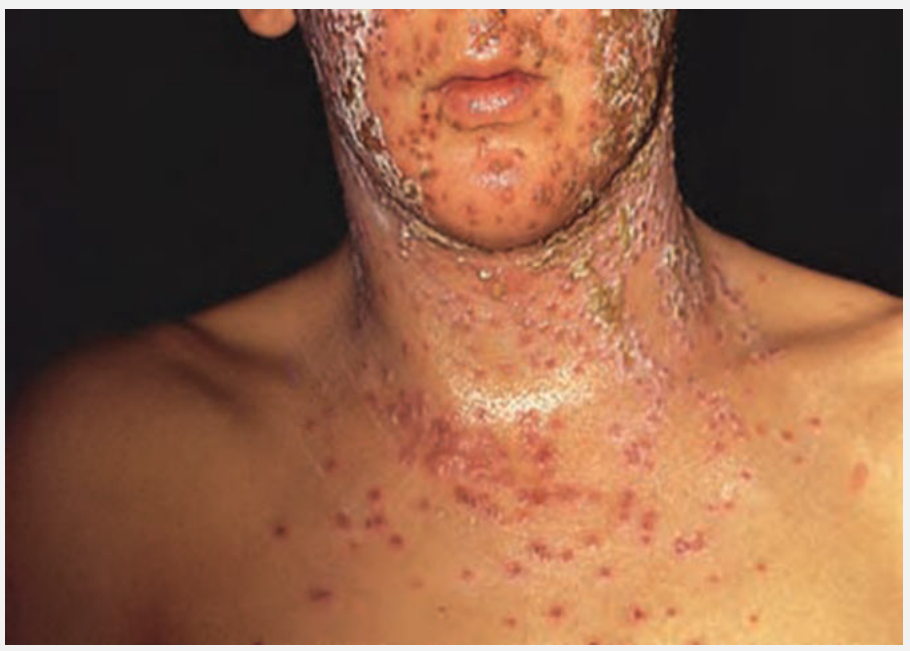


COMPLICATIONS AND CO-MORBIDITIES

- Psychosocial aspect: Itching, scratching and sleep disturbance cause impairment in quality of life
- Growth delay
- Secondary bacterial infection , viral infection
- Ocular changes: Dennie- Morgan fold
  Keratoconjunctivitis
  Keratoconus
- Urticaria
- Food allergy
- Alopecia areata
- Lip licking cheilitis

KAPOSI VARICELLIFORM ERUPTION
ECZEMA HERPETICUM

- HSV infection superadded
- Characteristic viral papulovesicles over existing patches of eczema
- Rapid evolution to a state of extensive purulent exudate
- To be suspected in case of rapid deterioration of the eczema.



TREATMENT

General measures

1. Counselling : disease, chronicity, course
2. Avoid scratching
3. Hot water bath
4. Avoid triggers : wool, synthetic clothes, strong soaps, housedust mite etc
5. Liberal use of emmolients: MAINSTAY of THERAPY

TREATMENT

	Mild	Moderate	Severe
First line	•Emollients •Mild potency TCS •Antihistamines	•Emollients •Moderate potency TCS or TCI • + Night sedating antihistamines •Oral antibiotics ±	•Emollients •Super potency TCS or TCI • + Night sedating antihistamines •Oral antibiotics ±
Second line	First line + wet wrap OR phototherapy (NB-UVB)		
Third line	Systemic therapy –Oral corticosteroids (short course) – Azathioprine –Ciclosporin –Methotrexate –Mycophenolate mofetil		

SEBORRHEIC DERMATITIS

- Chronic dermatitis
- Red, sharply marginated lesions covered with greasy scales
- Scalp, face, central chest, ano - genital areas, flexures and submammary areas
- Symmetrical distribution.
- Males commonly
- 30 years men and 40-50 yrs women

ROLE OF MALASSEZIA

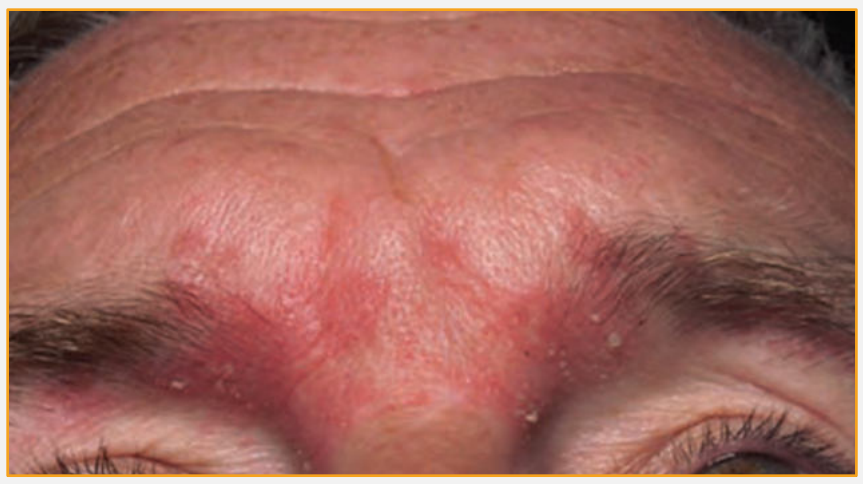
- The commensal lipophilic yeasts of the genus Malassezia are generally considered pathogenic through indirect and possibly immunological mechanisms
- exist as skin commensals in a state of symbiosis

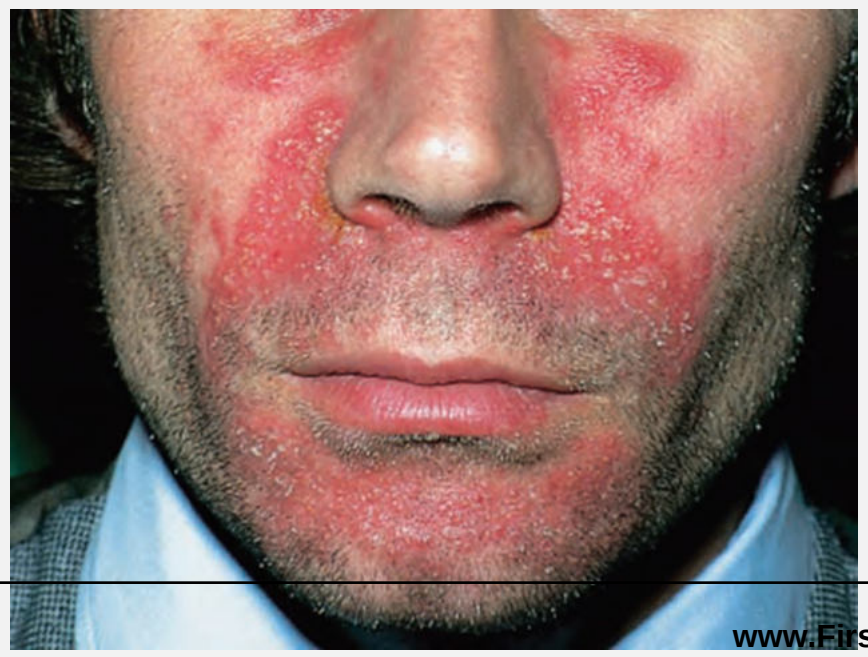
CLINICAL FEATURES

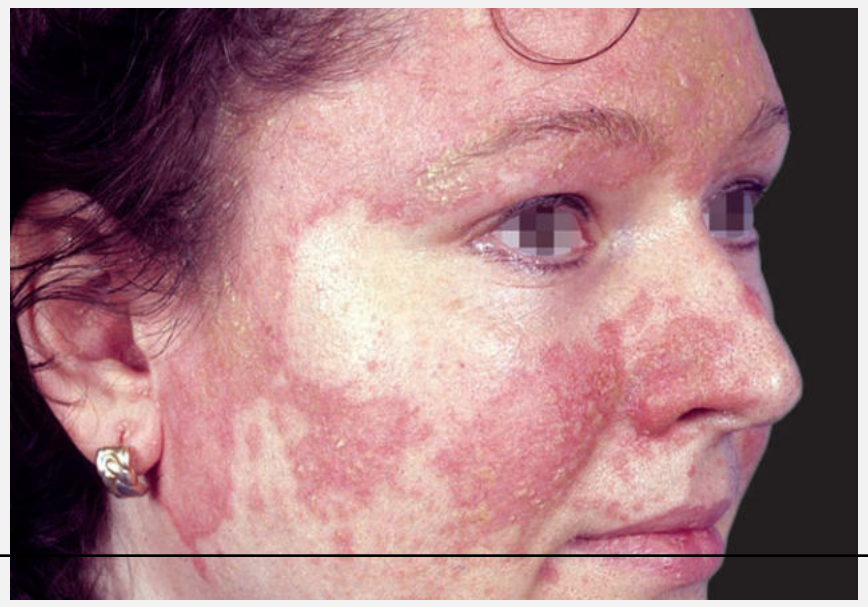
- Dandruff/ pityriasis capitis : isolated to the scalp with little or no overt inflammation, mildest forms of SD
- Seborrheic dermatitis: starts as dull or yellowish red pruritic lesions covered with greasy scales.
- Erythroderma

Facial SD

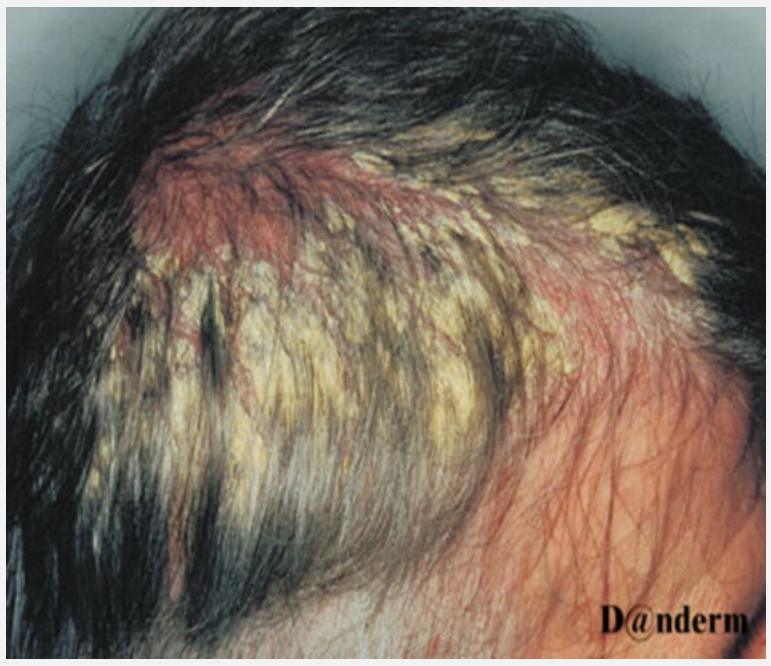
- naso-labial area, ear creases, eyelids and glabellar area, medial eyebrows
- eyelid margin involvement(anterior blepharitis): flaky debris on the eyelashes, typically near the base.



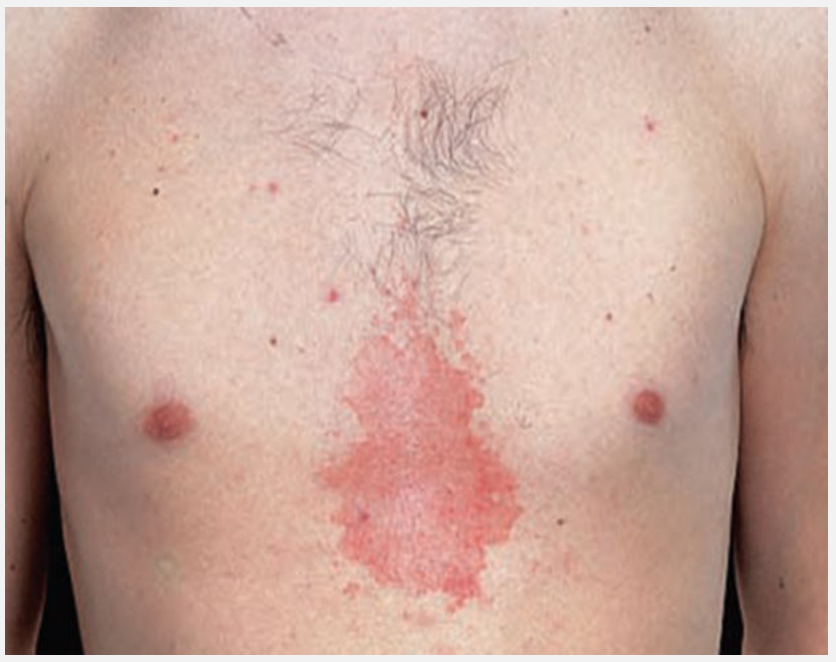




SCALP INVOLVEMENT

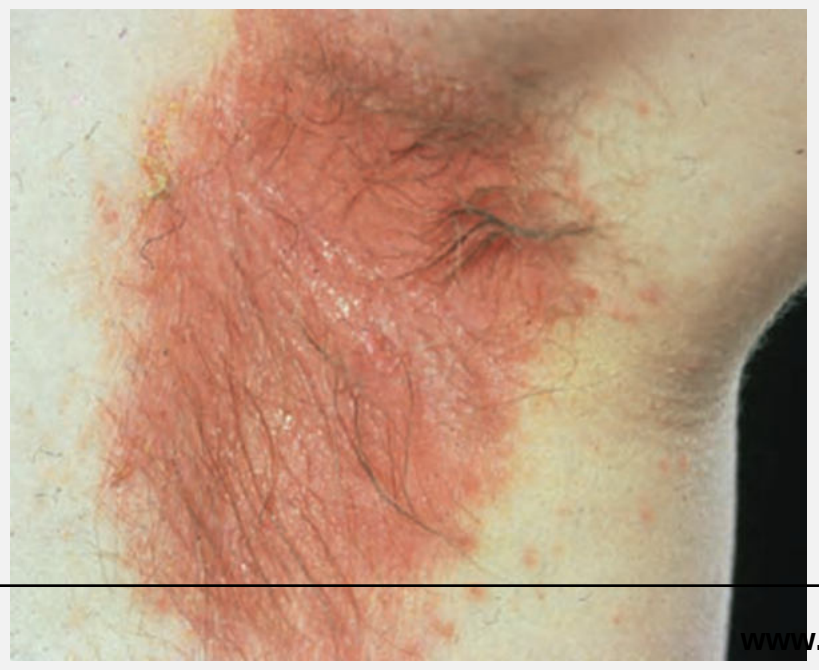


- Mild flaking without underlying erythema to a more inflammatory
- Eruption with thicker, yellow, greasy scales and crusts;
- Similar changes can occur in the beard



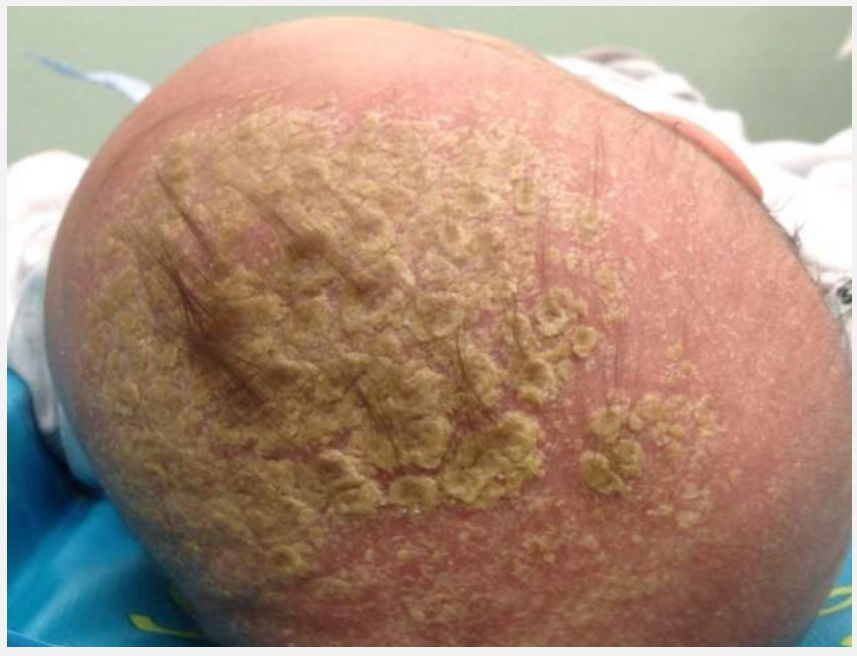
Truncal involvement

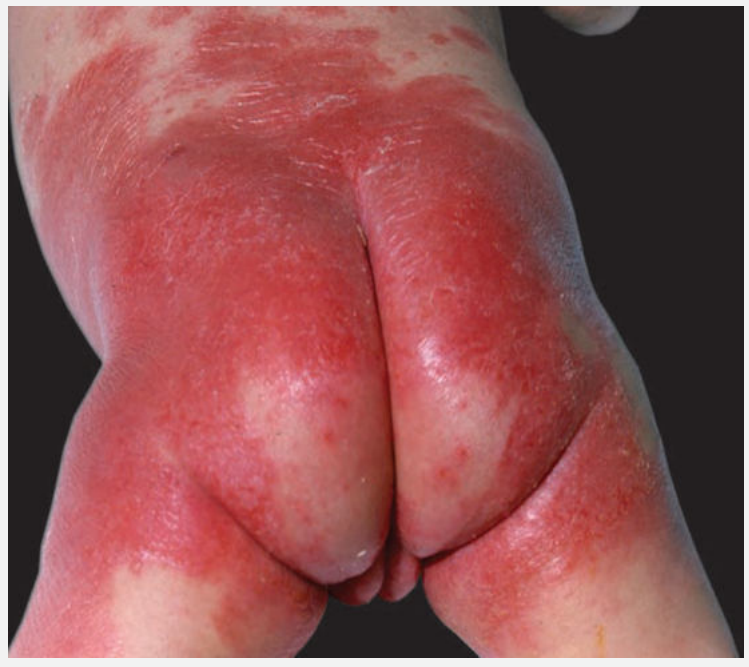
- presternal area :petaloid (petal-shaped) lesion
- ‘pityriasiform’: generalized erythematosquamous eruption
- Flexural lesion



INFANTILE SEBORRHEIC DERMATITIS

- Appears by 3 months and disappears spontaneously by 8 months of age
- presents primarily with cradle cap
- and/or napkin dermatitis.



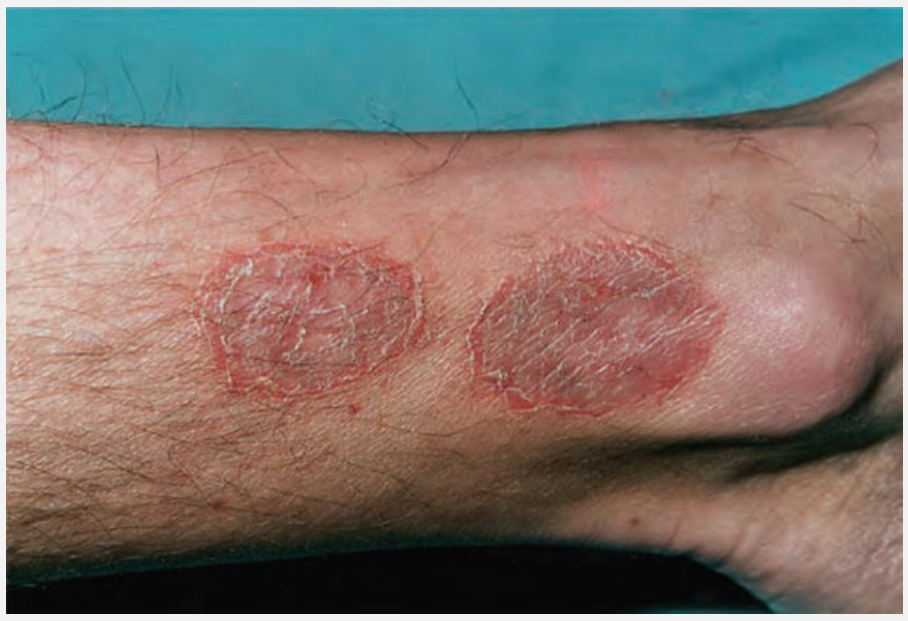


TREATMENT

Area involved	First line therapy	Second line	Additional
Scalp and beard	2% ketoconazole shampoo / selenium sulphide shampoo	Zinc pyrithione, coal tar or salicylic acid	Topical keratolytic / mineral oil : scale removal
Face and body in adults	Ketoconazole 2% / clotrimazole 1% / econazole 1% / miconazole 2% cream .	Mild topical corticosteroids for 1–2 weeks	2% ketoconazole shampoo as a body wash Eyelid: wash with cotton buds dipped in baby shampoo.
Infants	Removal of scalp crusts with baby shampoo and gentle brushing	clotrimazole 1% ., econazole 1% miconazole 2% cream b.d	Topical corticosteroids not routinely advised

DISCOID / NUMMULAR ECZEMA

- Coin shaped plaque of closely set, thin-walled vesicles on an erythematous base.
- Itching severe.
- Middle aged men
- Sites- lower legs, dorsa of hands, extensor surfaces of the arms.
- Secondary lesions appear as mirror images
- Dormant patches may become active again



TREATMENT DISCOID ECZEMA

First line

- Emollient, topical corticosteroid, topical or oral antibiotic

Second line

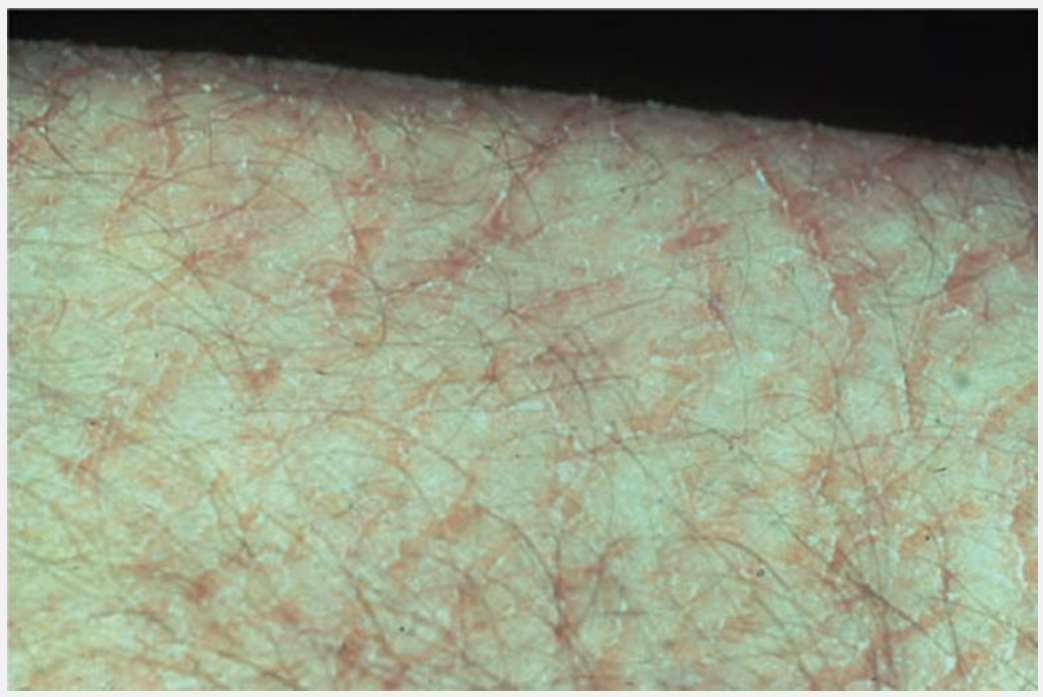
- Topical calcineurin inhibitor

Third line

- Phototherapy (narrow-band UVB/PUVA)
- oral immunosuppressants: methotrexate or oral steroids

ASTEATOTIC ECZEMA
ECZEMA CRAQUELE

- Elderly ; legs, arms and hands
- Winter: reduction in humidity
- The asteatotic skin is dry and slightly scaly
- Backs of the hands : criss-cross lines.
- Finger pulps: dry, cracked, producing distorted prints. retain prolonged depression after pressure ‘parchment pulps’.
- Legs marked superficial markings: ‘crazy-paving’ pattern (eczema craquele)



TREATMENT ASTEATOTIC ECZEMA

First line

- Humidify environment

Second line

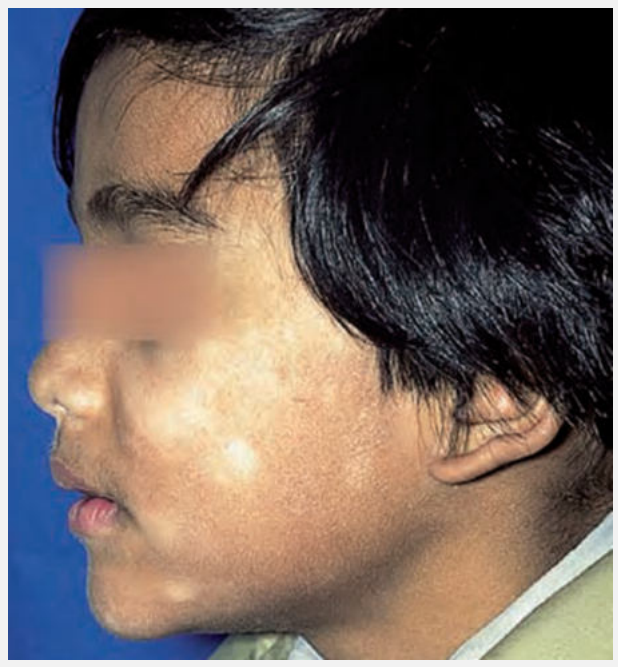
- Emollients, with or without urea, bath oil and soap substitute

Third line

- Mild topical corticosteroids
- tacrolimus

PITYRIASIS ALBA

- Age : 3 and 16 years
- Confined to the face: cheeks, around mouth and chin
- Start as slightly erythematous with fine scaling
- Later: rounded, oval or irregular hypopigmented patch, not well marginated
- D/D - Nevus depigmentosus, early vitiligo, PMLE



TREATMENT PITYRIASIS ALBA

- Response to treatment is often disappointing

First line

- Emollient

Second line

- Mild topical corticosteroids

Third line

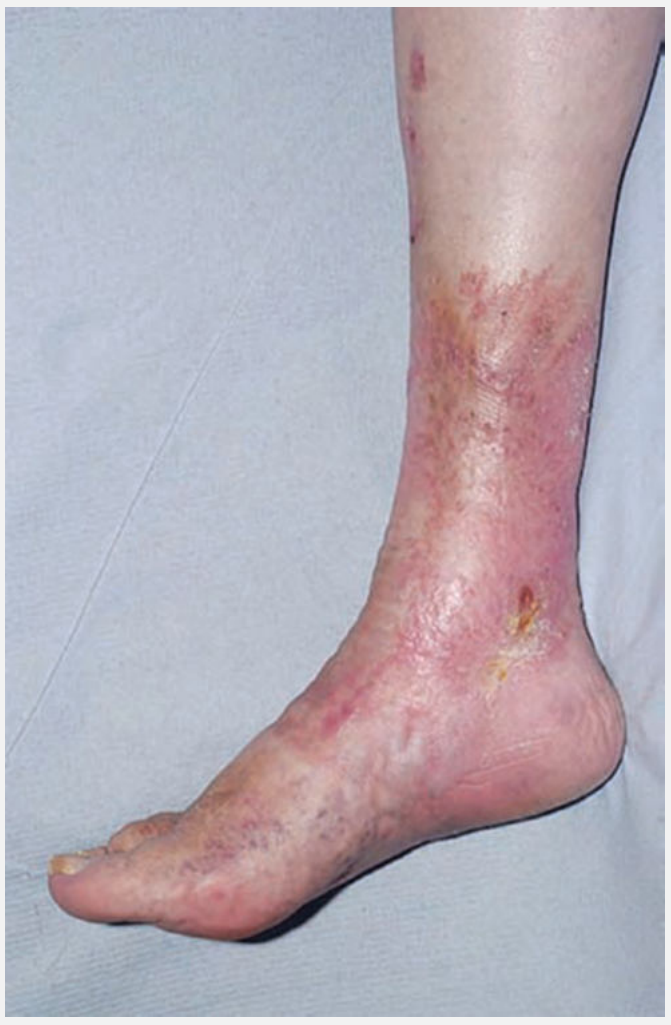
- Topical tacrolimus or pimecrolimus

GRAVITATIONAL/VENOUS/STASIS /VARICOSE ECZEMA

- Secondary to dysfunctional venous drainage of the lower legs.
- middle-aged elderly females.
- Predisposition: previous DVT , presence of venous stasis: prolonged standing, obesity, immobility,and previous cellulitis
- around the ankle and lower legs

- High ambulatory venous pressure within the calf muscle pump
- Transmitted to the capillary circulation
- Distends the local capillary bed
- Widens the endothelial pores
- Fibrinogen molecules escape into the interstitial fluid, form a fibrin sheath around the capillaries - pericapillary barrier
- Prevents diffusion of oxygen and other nutrients essential for the normal vitality of the skin
- Also, increased sequestration of white cells in the venules,
- Consequent release of proteolytic enzymes and free radicals which produce tissue damage

- first sign - pitting edema - medial aspects of shin; proximal to the ankle
- Edema more pronounced in evening; resolves overnight.
- Skin in area- dry and itchy.
- Over years, the skin, subcutaneous adipose tissue and deep fascia indurated and mutually adherent ("lipodermatosclerosis")
- Erythema and scaling most pronounced around the inner malleoli
- Episodes of vesiculation , oozing and erosive occur
- Repeated episodes of acute eczema gives way to venous ulcers



TREATMENT VENOUS ECZEMA

First line

- Any underlying venous hypertension and/or pedal oedema controlled.
- Obese patients to lose weight.
- Skin care, including leg elevation
- Emollients, topical corticosteroids, tacrolimus
- Antibiotics for sec. Bacterial inf

TREATMENT VENOUS ECZEMA

Second line

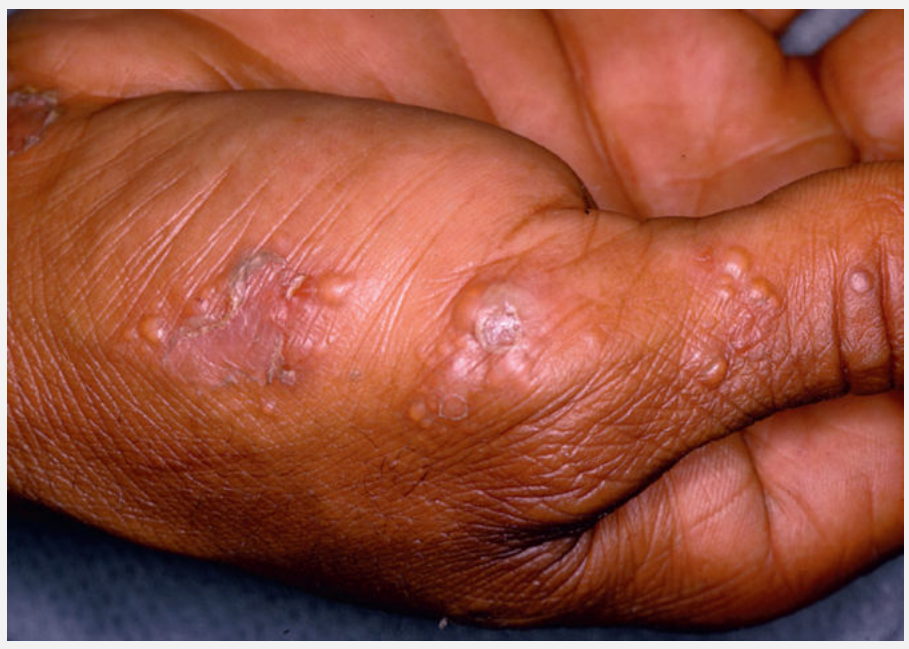
- Compression hosiery (Ankle brachial pressure index, ABPI >.08, in absence of calcified vessels)

Third line

- Referral to vascular surgeon: surgical intervention

DYSHIDROTIC ECZEMA

- Acute and recurrent
- Firm, pruritic "sago grain-like"vesicles
- Site- palms, soles, lateral and medial aspects of the fingers and toes
- No disturbance of sweat gland function- ‘dyshidrotic’ misnomer
- Treatment - Topical and systemic corticosteroids
- Topical calcineurin inhibitors , PUVA may be helpful.



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➢ This secondary lesion develops when serum, blood or purulent exudate dries on the skin surface.

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➢ The best maintenance therapy in atopic dermatitis is
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THANK YOU