Lichen Planus
&
Pityriasis Rosea

Lichen Planus

- Leichen – tree moss ; planus – flat
- Coined by Sir William James Erasmus Wilson in 1869

- Idiopathic, inflammatory disorder affecting skin , mucous memb , nails & hair.
- Chronic course with relapses and remissions

- Affects 0.5% of the population
- Age group affected: 30 – 60 years
- rare in children

ETIOLOGY :

1. Idiopathic
2. Familial associations: HLA - A3, - A5, - B7, - DR1 and - DRB*0101.
3. Drugs causing LP like eruptions – gold salts, beta blockers, antimalarials, thiazides, furosemide, spironolactone, penicillamine
4. Dental amalgams
5. Infections – HCV
6. Betel leaf, areca nut use in South East Asia - oral LP

PATHOGENESIS

- The exact pathomechanisms are unclear

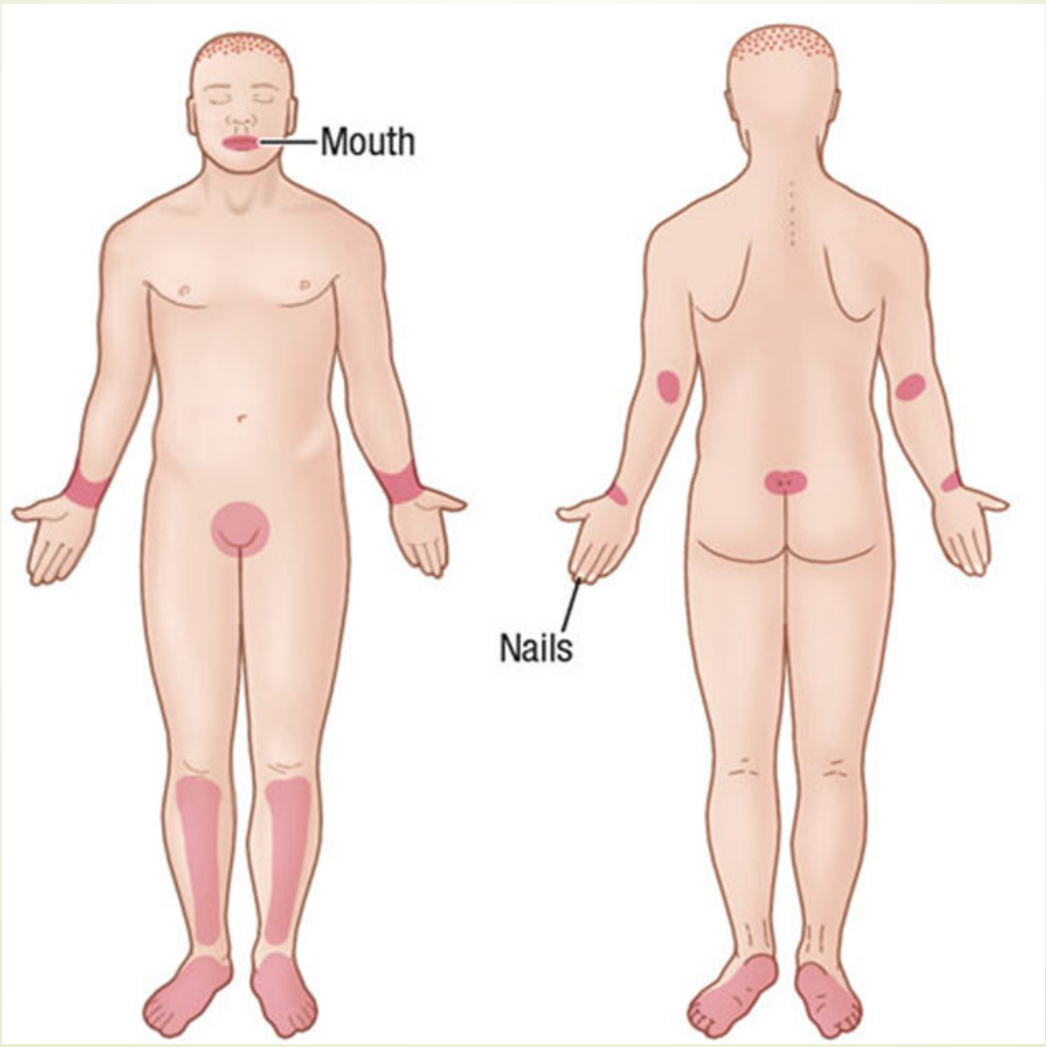
Autoimmunity is clearly suggested to be central in pathogenesis in LP

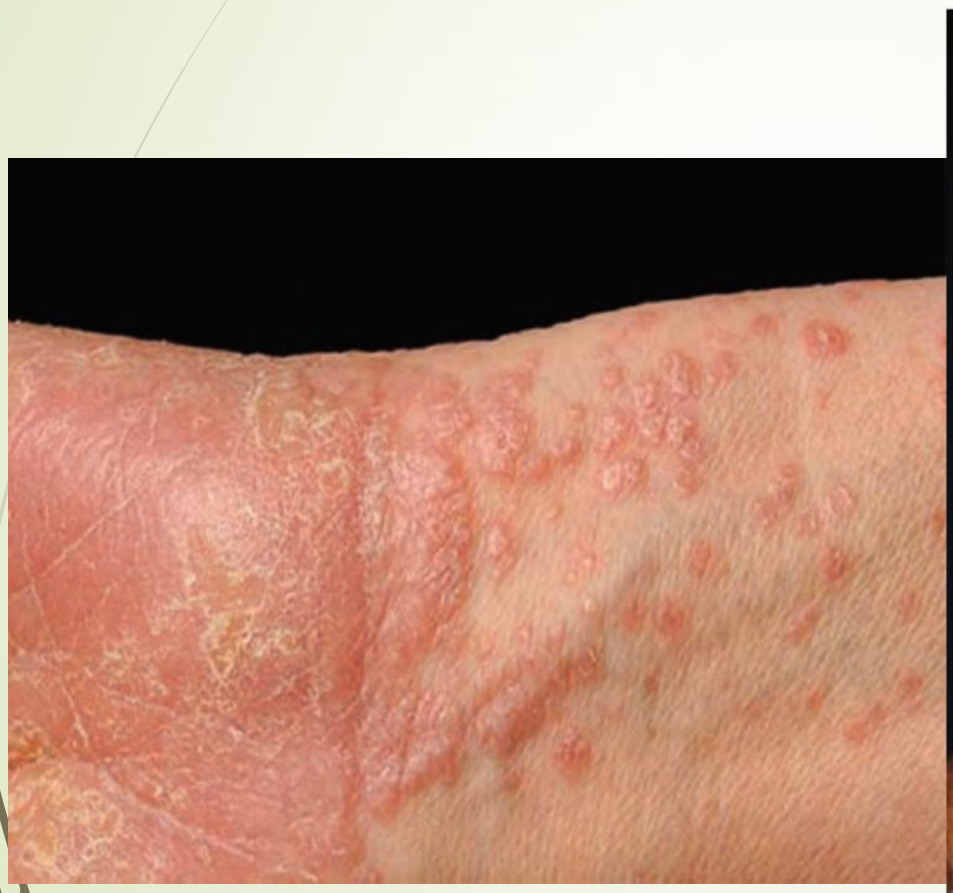
1. LP – specific antigen recognition
2. Cytotoxic Lymphocyte Activation
3. Keratinocyte Apoptosis

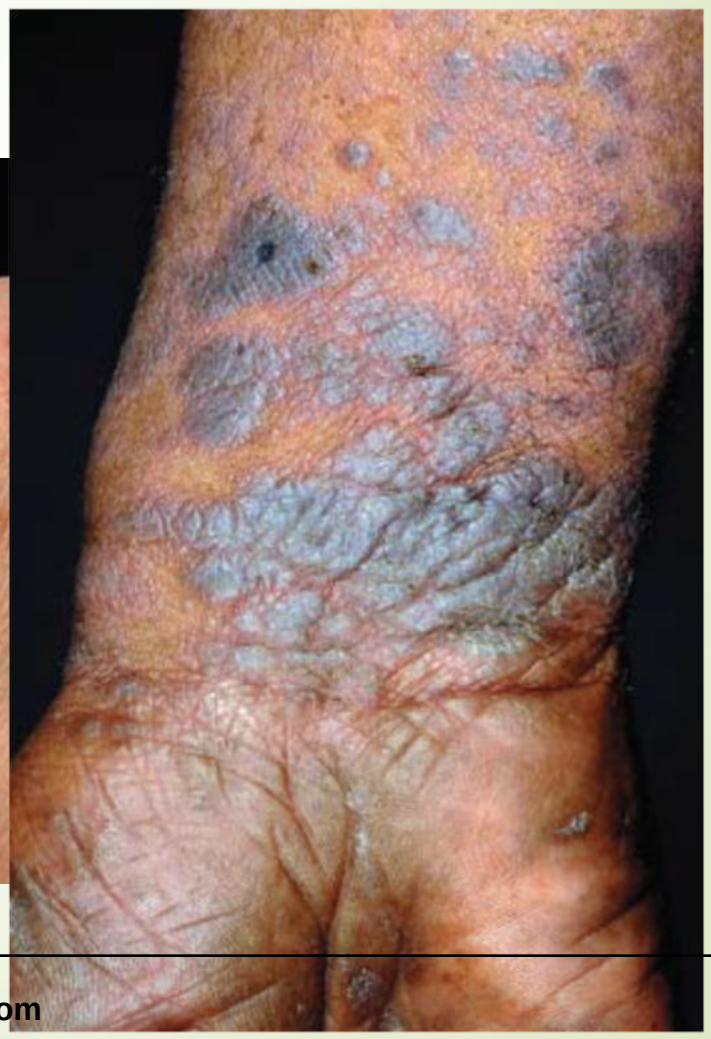
CLINICAL FEATURES

- firm, shiny, polygonal, 1–3 mm diameter papules, red to violet
- 6 P's --- purple, pruritic, polygonal, plane topped, papules, plaques
- Pruritus: mild irritation, to continuous severe itching interfering with sleep
- distribution: isolated/grouped, linear/annular
- resolved lesions: greyish brown due to deposition of melanin in the superficial dermis.

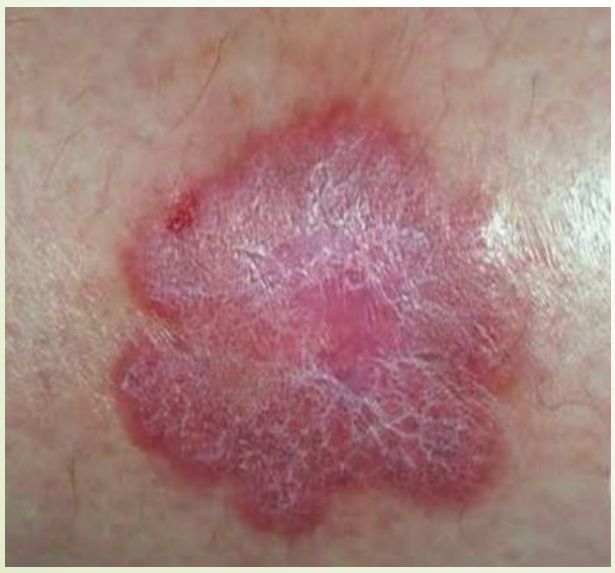
Sites : volar aspect of the wrists, lumbar region, ankles, shins, scalp, palms, soles.
Oral and genital mucosa





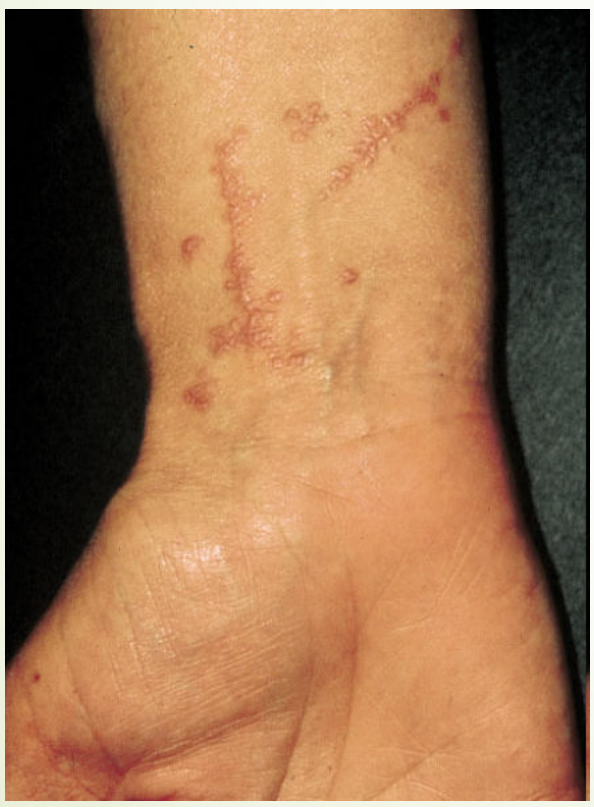


- WICKHAM'S STRIAE :on close inspection a trace of thin white lines seen on the surface of the lesions



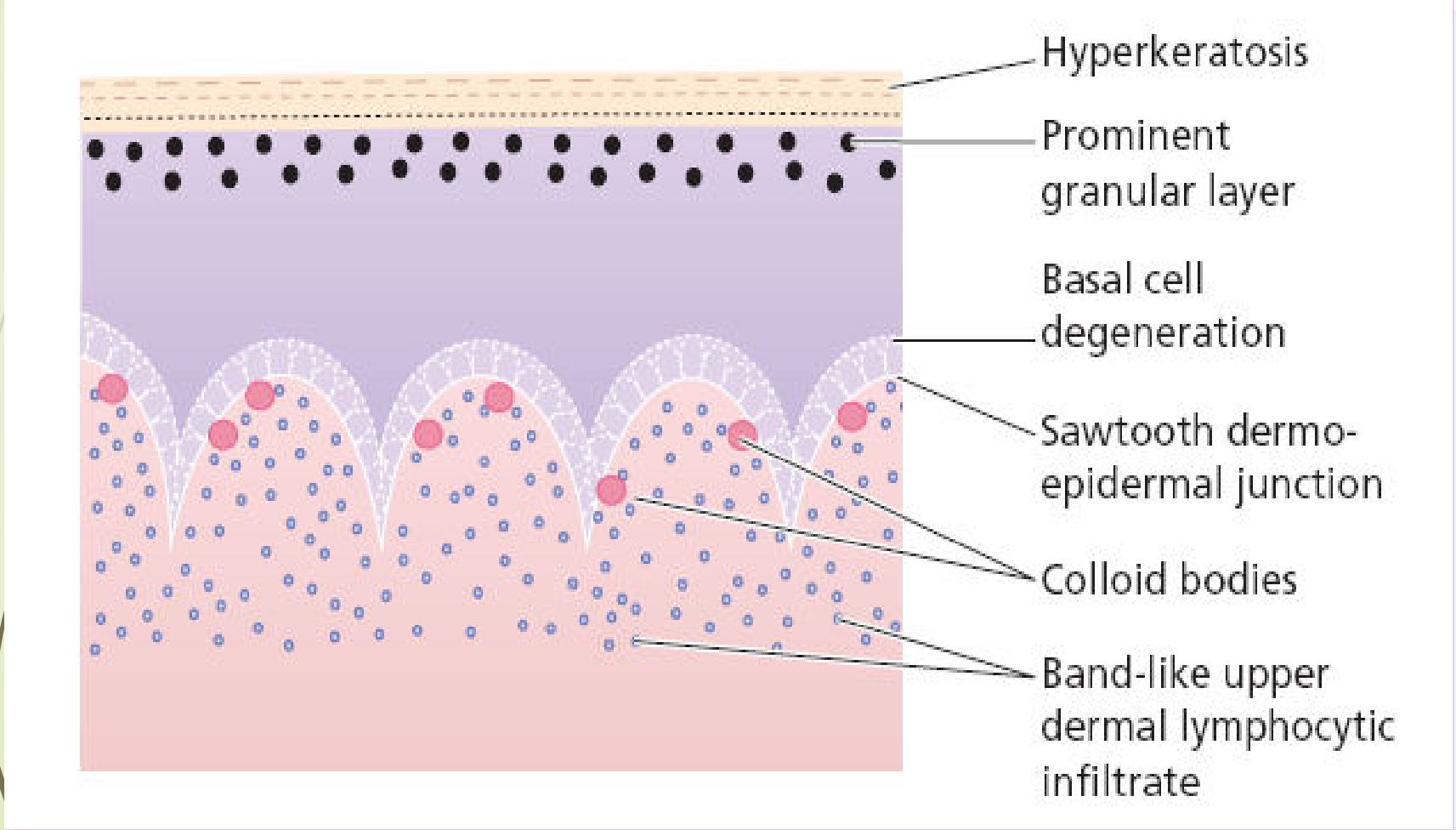
- BROCQ'S PHENOMENON:
- Subepidermal hemorrhage following scraping of a classical LP lesion

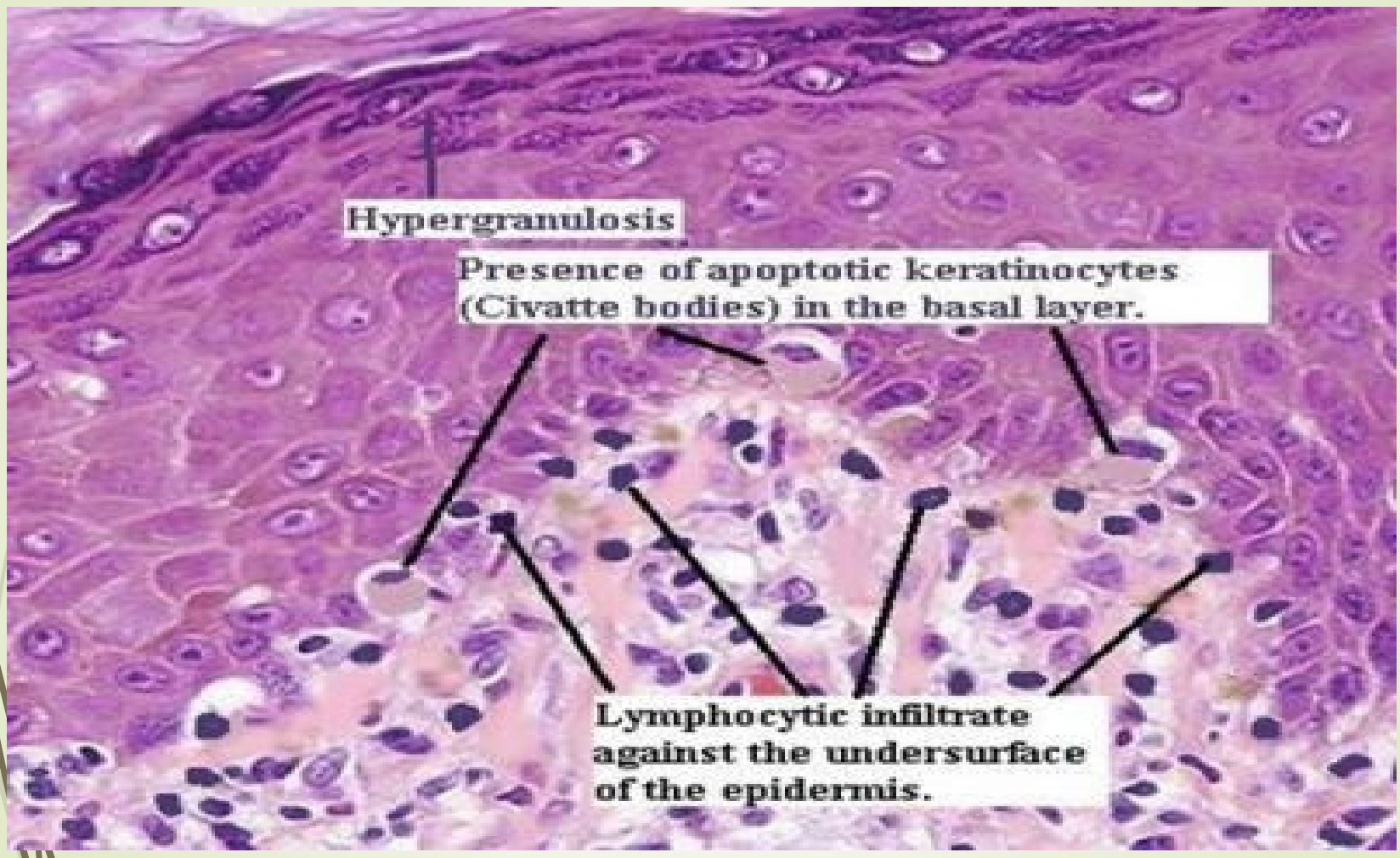
KOEBNER'S PHENOMENON



- Development of lesions in previously normal skin that has been subjected to trauma

HISTOPATHOLOGY



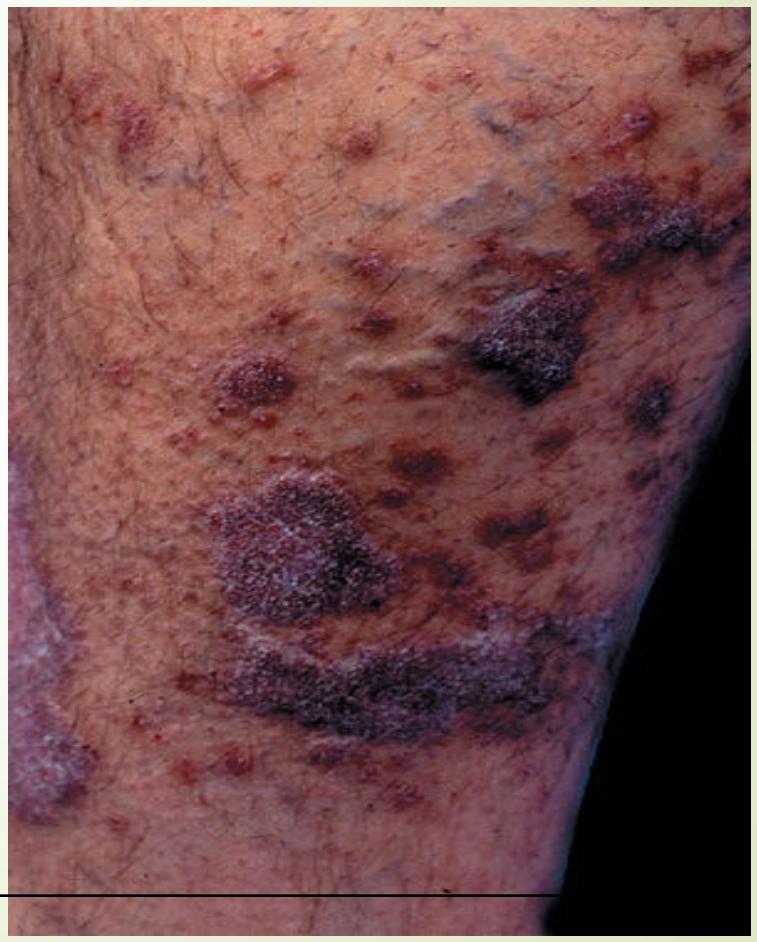


TYPES OF LP

MORPHOLOGY	SITE	SPECIAL
HYPERTROPHIC	SKIN	ACTINIC
ATROPHIC	MUCOSAL (ORAL, GENITAL)	LP PEMPHIGOIDES
GUTTATE(ERUPTIVE)	PALMOPLANTAR	LP PIGMENTOSUS
ANNULAR	NAIL	
LINEAR	SCALP	
VESICULOBULLOUS	INVERSE	
FOLLICULAR		
ULCERATIVE/EROSIVE		

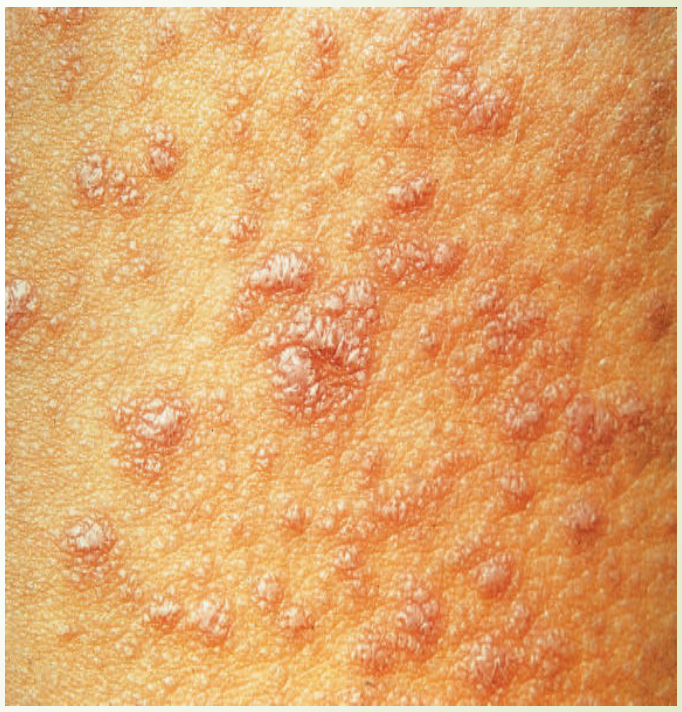
HYPERTROPHIC LP

- Hypertrophic or warty lesions
- Lower limbs, especially around the ankles
- Severely itchy
- Must be distinguished from lichen simplex chronicus and lichen amyloidosis



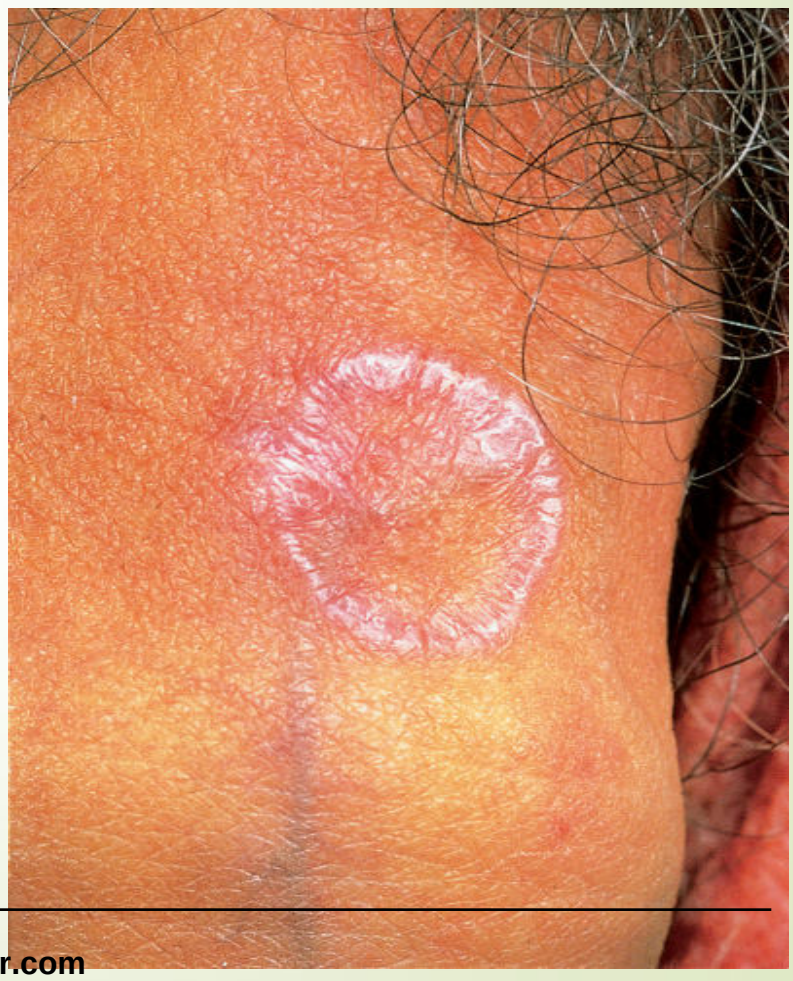
GUTTATE LP

- Lesions are widely scattered, discrete, size (1–2 mm)
- Differentiate from guttate psoriasis



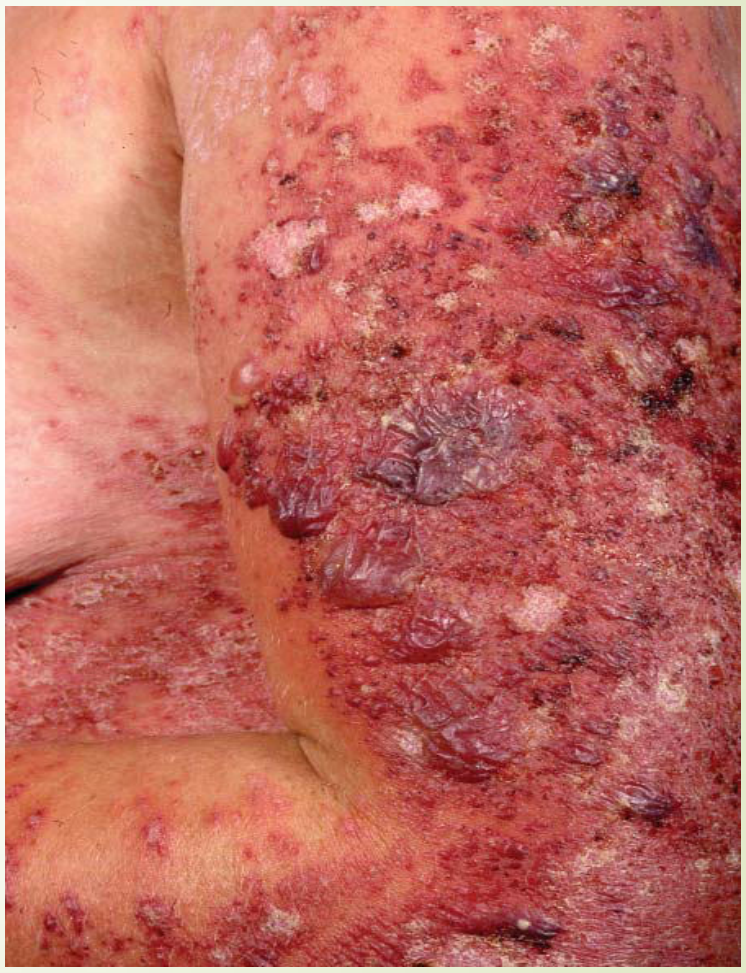
ANNULAR LP

- very narrow rim of activity with a depressed, slightly atrophic centre
- characteristically found on the penis



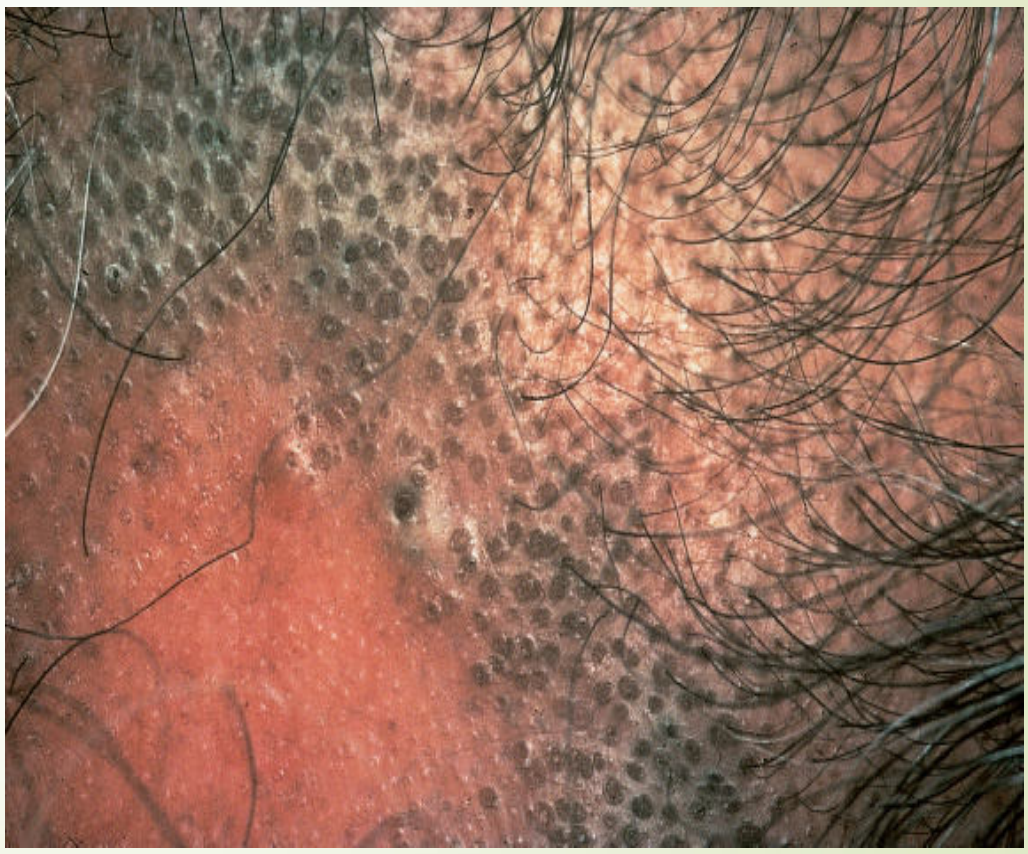
BULLOUS LP

- blisters arise only on or near the lesions of LP
- short duration
- HPE - severe liquefaction degeneration of the basal cell layer. Subepidermal bulla with typical changes of LP
- direct and indirect immunofluorescence negative.



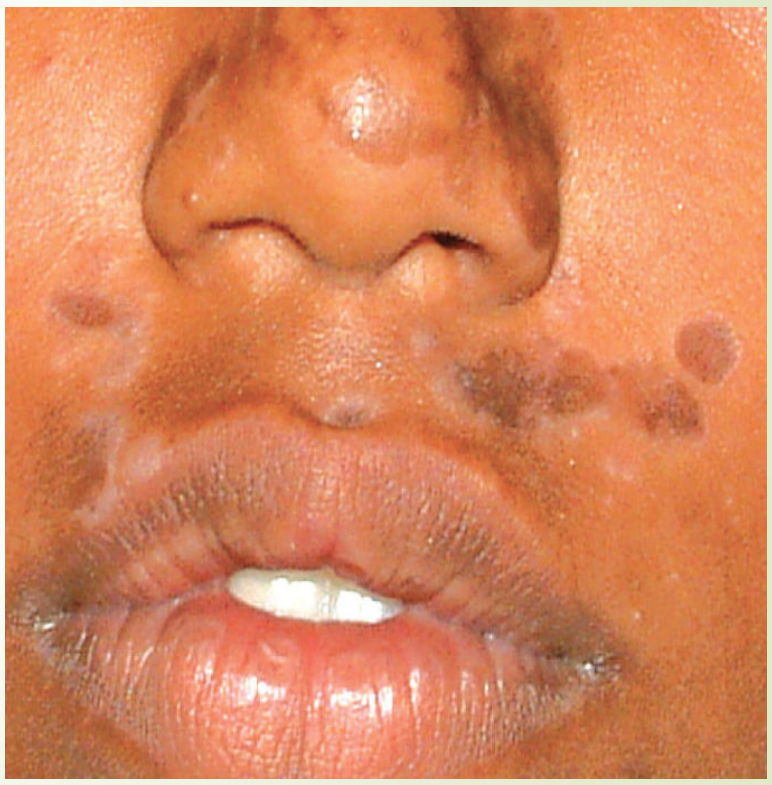
FOLLICULAR LP

- Follicular lesions
- Scalp
- Intensely itchy
- scarring alopecia



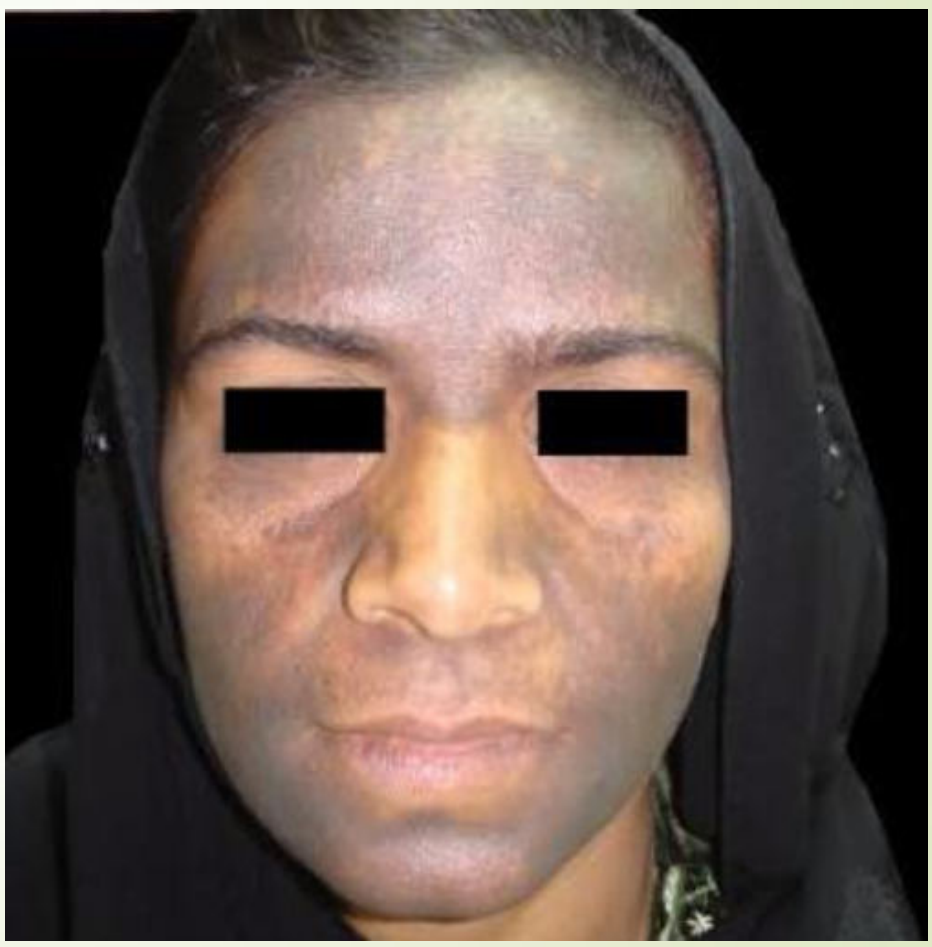
ACTINIC LP

- Lichen planus subtropicus –
- dark skinned, tropical countries
- well - defined annular/discoid patches, with a deeply hyperpigmented centre & surrounded by a striking hypopigmented zone
- Sunexposure :central to the pathogenesis



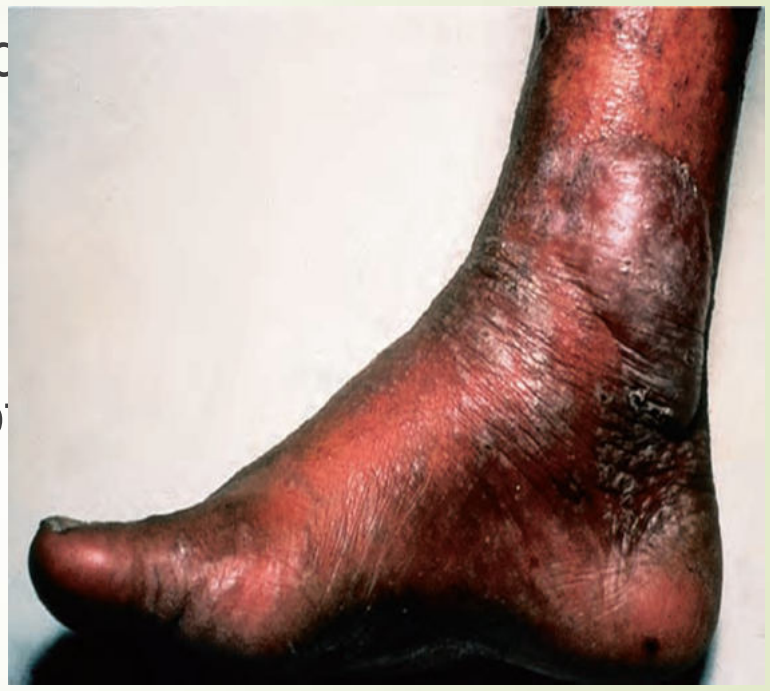
LICHEN PLANUS PIGMENTOSUS

- India, Middle East
- macular hyperpigmentation: slate grey to brownish black
- face, neck and upper limbs



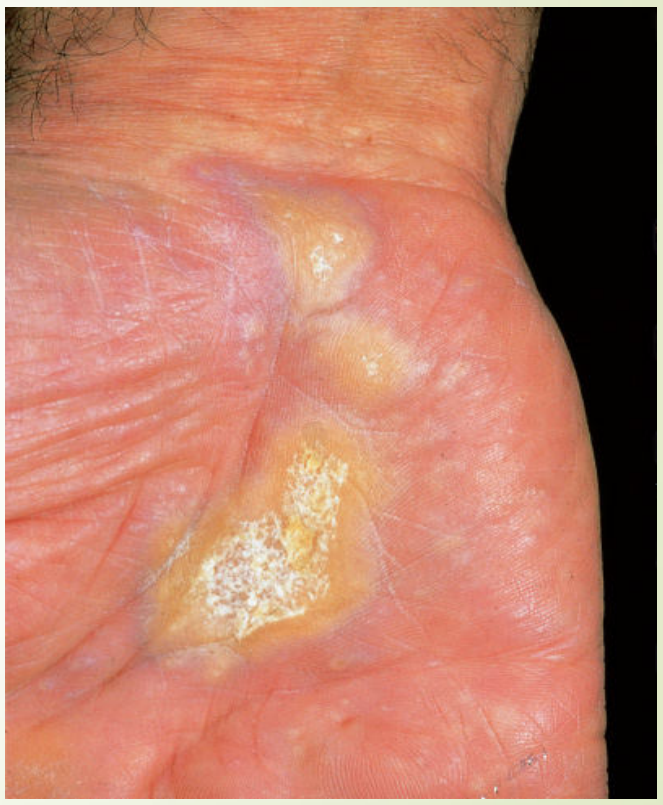
LICHEN PLANUS PEMPHIGOIDES

- acute and generalized
- large bullae on both involved and uninvolved skin.
- HPE: subepidermal bulla without evidence of LP
- Direct IF: linear deposition of IgG, C3 along basement membrane zone in perilesional skin
- Immunoelectron microscopy: deposition of IgG,C3 in the base of the bulla (unlike BP- roof)



LICHEN PLANUS: PALMS, SOLES

- lesions are firm, rough with a yellowish hue
- broadly sheeted or punctate
- diagnosis is very difficult; syphilis, psoriasis, callosities and warts must be excluded



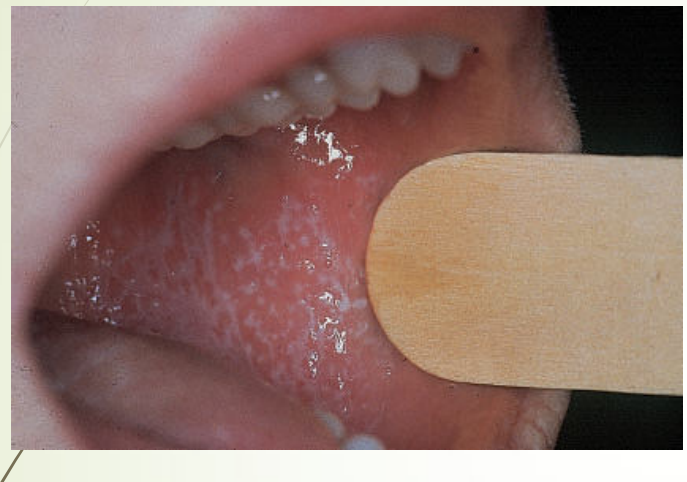
MUCOSAL LESIONS

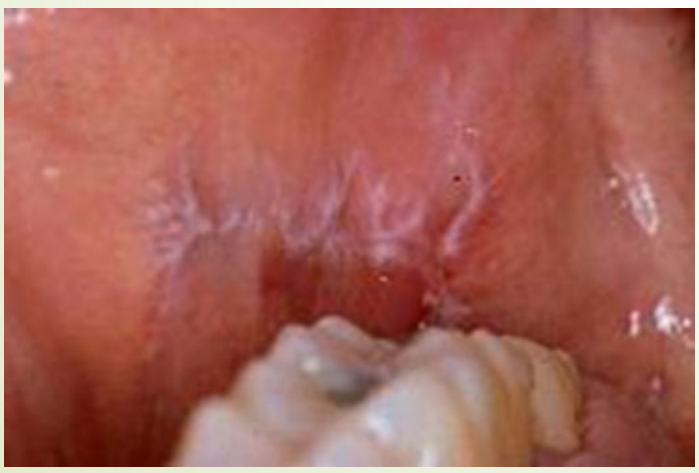
- Seen in 30–70% cases; may be isolated
- Sites:
  - buccal mucosa,
  - tongue (most often involved)
  - genitalia- the penile shaft, glans penis, prepuce, scrotum, vulva
  - perianal

Patterns Of Mucosal Involvement

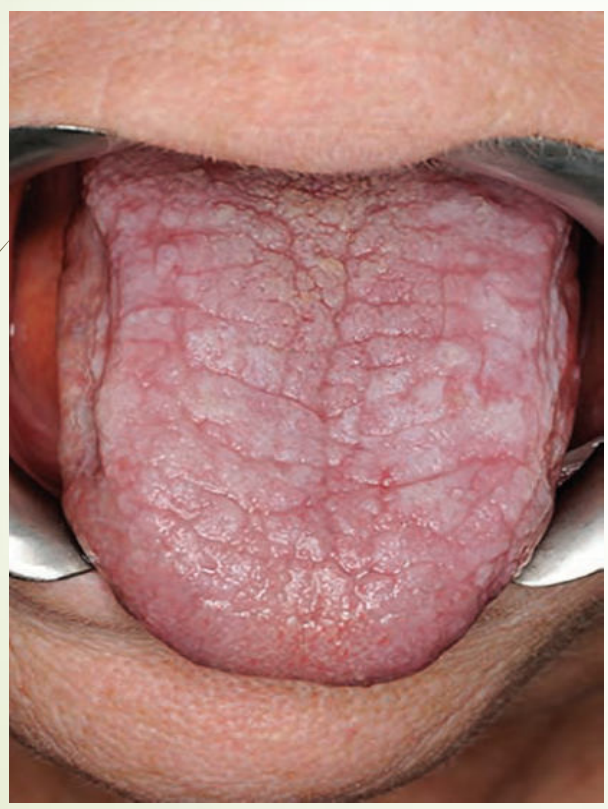
- Reticulate – most common
- Atrophic
- Hypertrophic
- Erosive/Ulcerative
- Plaque-like
- Papular
- Bullous

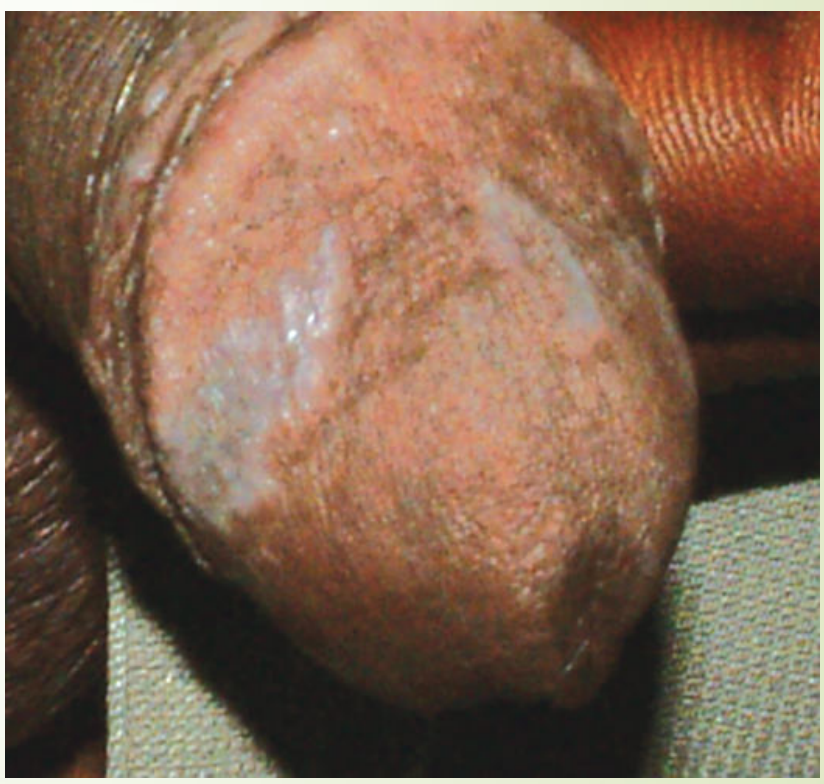
ORAL LP





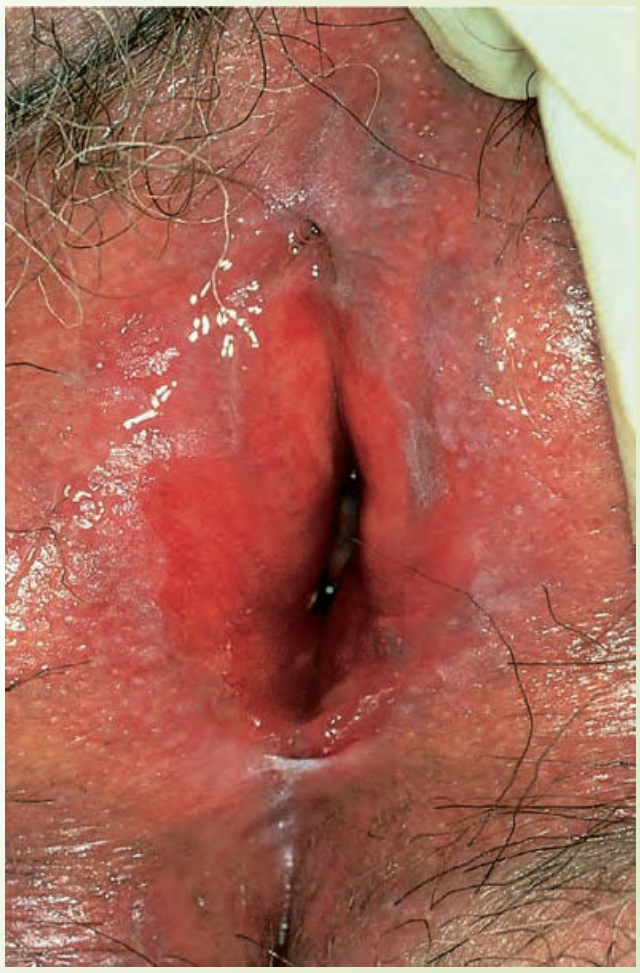
- Reticulate pattern(M/C)
- White streaks, often forming a lacework.
- inner surface of the cheeks, gum margins, lips.
- Associated oral candidiasis





VULVAL LP

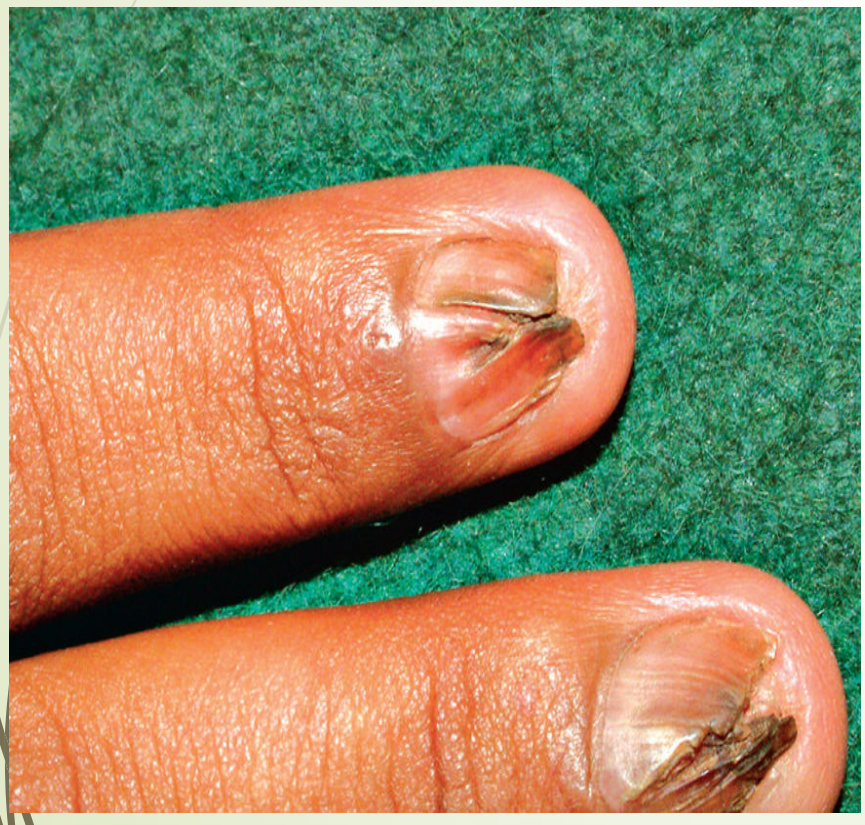
- well - demarcated erosions/erythematous areas at the vaginal introitus
- hyperkeratotic border of lesions; Wickham's striae in the surrounding skin
- vaginal inflammation
- pain/burning, scarring/loss of normal architecture
- involvement of other mucosa



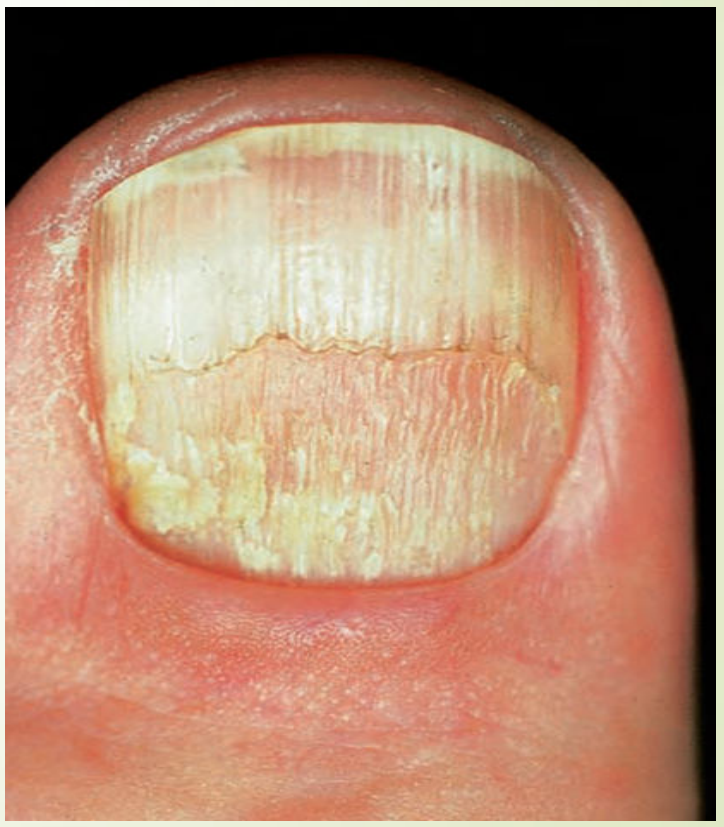
NAIL INVOLVEMENT

- 10% cases. Fingernails > toenails
- initially 2/3 fingernails, subsequently remaining digits.
- Exaggerated longitudinal lines, linear depressions
- Adhesion between the epidermis of the dorsal nail fold and the nail bed: pterygium unguis
- complete shedding

Pterygium unguis



Exaggerated longitudinal lines



PROGNOSIS / COMPLICATIONS

- Lesions resolve with pigmentation that may last for many months
- Recurrent episodes
- Oral & hypertrophic lesions may be premalignant
- Scarring alopecia

TREATMENT of LP

TOPICAL	PHOTOTHERAPY	SYSTEMIC
TCS	PUVA	STEROIDS
IMMUNOMODULATORS		RETINOIDS
TRETINOIN (ORAL LESION)		STEROID SPARING DRUGS
LIDOCAINE(ORAL LESION)		TETRACYCLINES
VIT.D ANALOGUES		DAPSONE
		METRONIDAZOLE
		GRISEOFULVIN
		THALIDOMIDE
		BIOLOGICALS

TREATMENT LADDER: CUTANEOUS

First line

- Limited: very potent corticosteroids topical (eg.clobetasol propionate ointment 0.05%);
- Widespread: systemic prednisolone 0.5–1 mg/kg per day until improvement

Second line

- Prednisolone 0.5–1 mg/kg per day until improvement
- Acitretin 30 mg per day for 8 weeks
- PUVA /UVB: two to three times a week ± systemic retinoids

TREATMENT LADDER: ORAL

First line

- Symptomatic : very potent corticosteroids

  Soluble prednisolone tablets, 5 mg in 15 mL water, mouthwash tds or betamethasone soluble tablets 0.5 mg

- Severe erosive LP: prednisolone 0.5–1 mg/kg per day

Second line

- Papular ,plaque - like white forms no erosions: topical retinoids
- Resistant to topicals: prednisolone 0.5–1 mg/kg

Third line

- Steroid dependent/resistant erosive LP: Azathiprine, MMF, Mtx, Cyclosporin A

TREATMENT LADDER: NAILS

< four nails

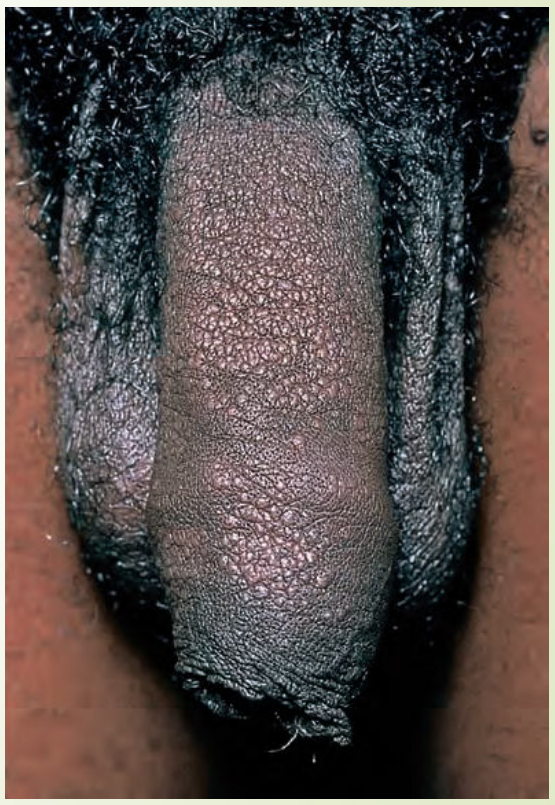
- super - potent corticosteroids

Severe nail involvement :

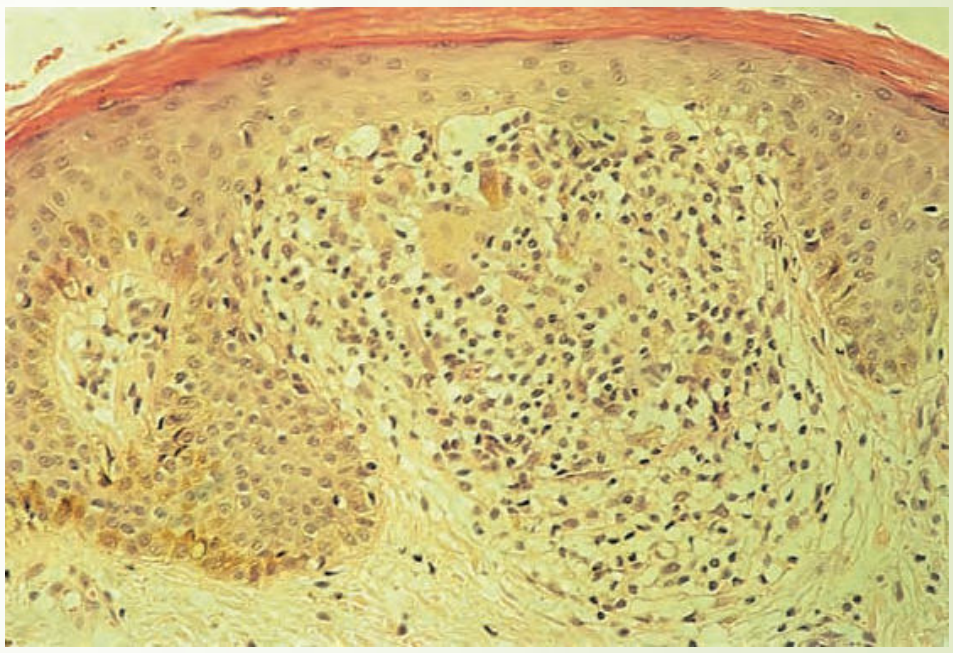
- monthly intralesional injection of triamcinolone acetonide (0.5 –10 mg/mL) in the periungual sites.
- oral prednisolone (0.5–1 mg/kg/day)

LICHEN NITIDUS

- pinpoint to pinhead - sized papules,
- flesh coloured, with a flat, shiny surface. Remain discrete
- asymptomatic
- forearms, penis, abdomen, chest, buttocks.
- self - limiting, no treatment



- intense, circumscribed, infiltrate of lymphocytes, histiocytes & few Langhans cells situated immediately below a flattened epidermis.
- The rete ridges at the margin of the infiltrate are elongated to encircle it
- liquefaction degeneration of the basal cell layer.



PITYRIASIS ROSEA

- Pityriasis – scales ; Rosea – pink (Gilbert)
- Acute , self-limiting disease , probably infective in origin.
- Children & young adults with a slight female preponderence.
- Minimal symptoms - pruritus

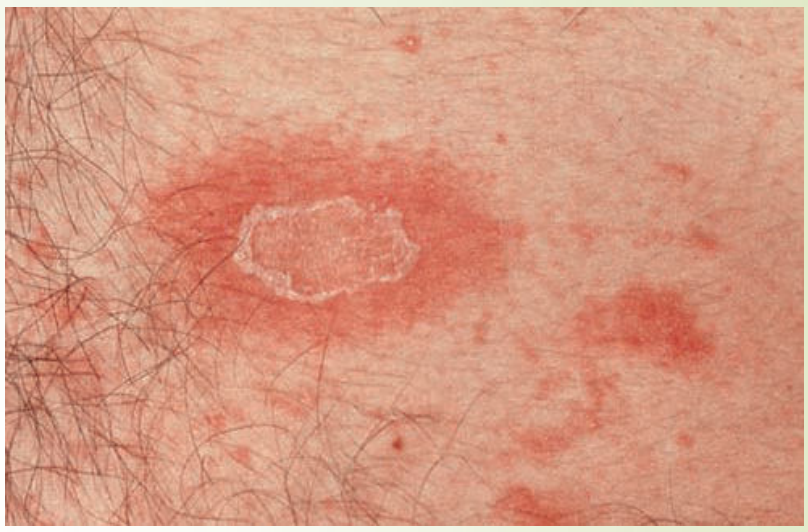
ETIOLOGY:

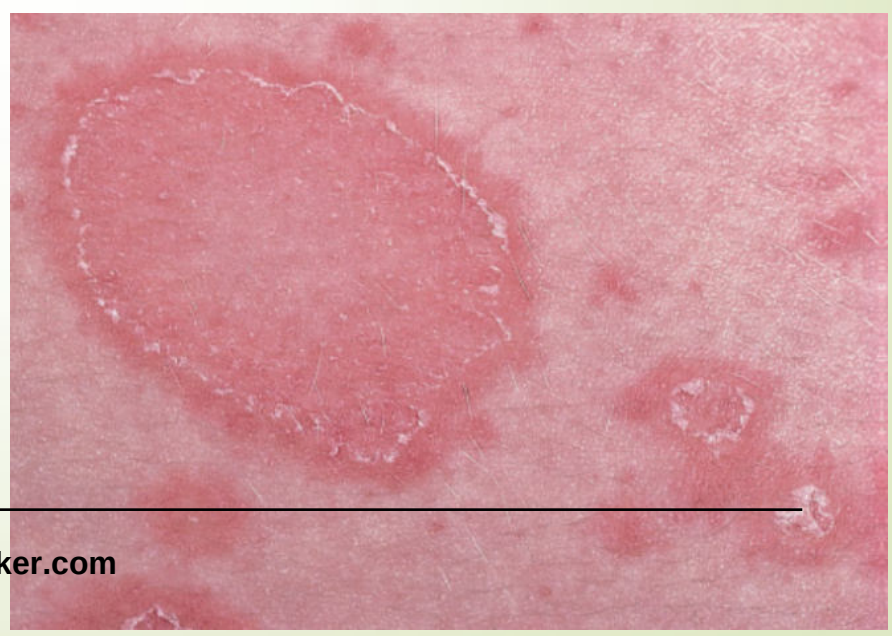
1. Viral : HHV 7 ; HHV 6 – reactivation
2. Drugs : Metals (Ar, Bi, Au)
   - Lithium
   - Methopromazine
   - Metronidazole
   - Barbiturates
   - Clonidine
   - Captopril etc.

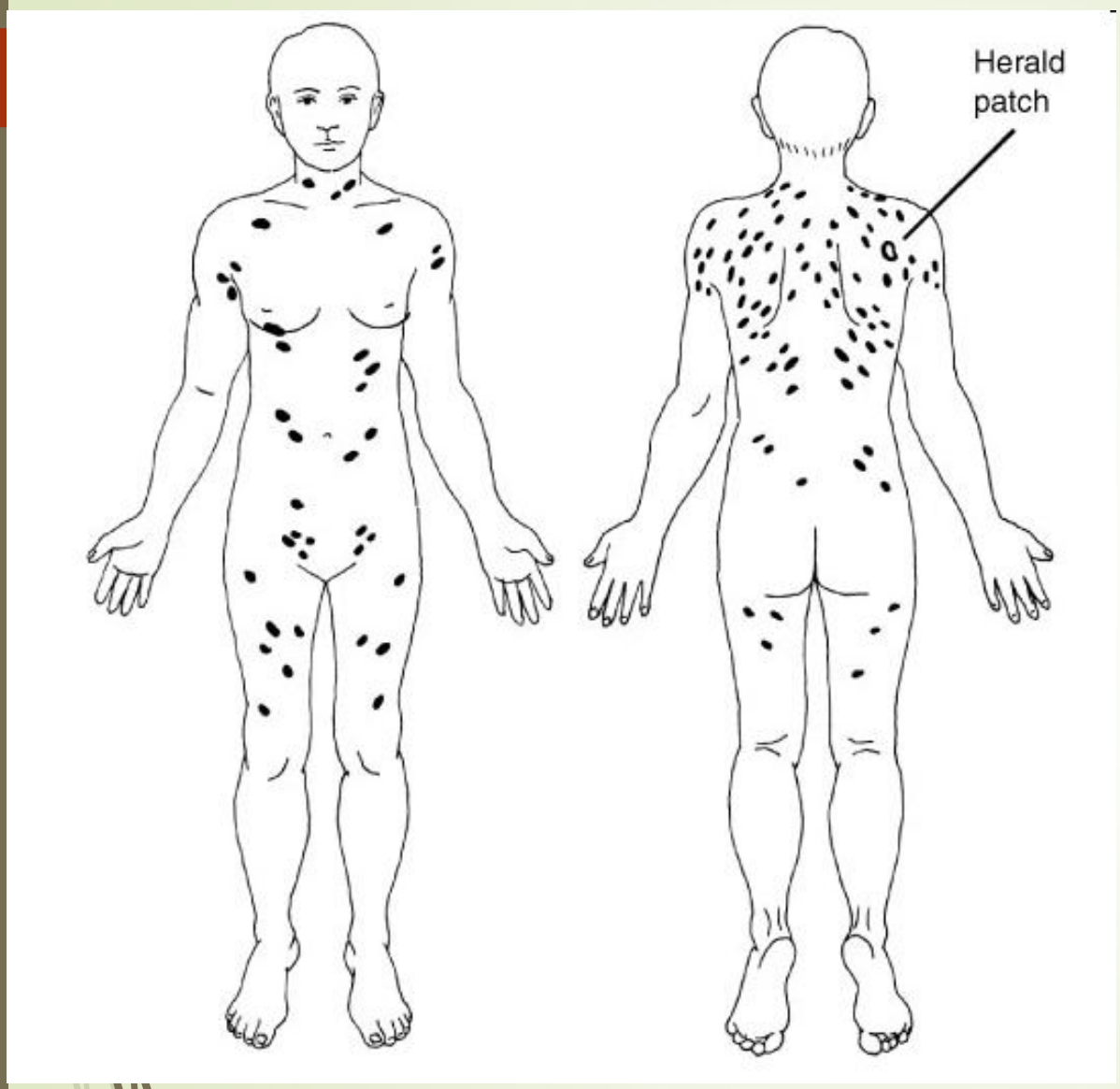
CLINICAL FEATURES

HERALD PATCH

- primary plaque/mother patch.
- Sharply defined erythematous annular plaque with a peripheral collarette of scales.
- M/C Site – thigh,upper arm,trunk or neck



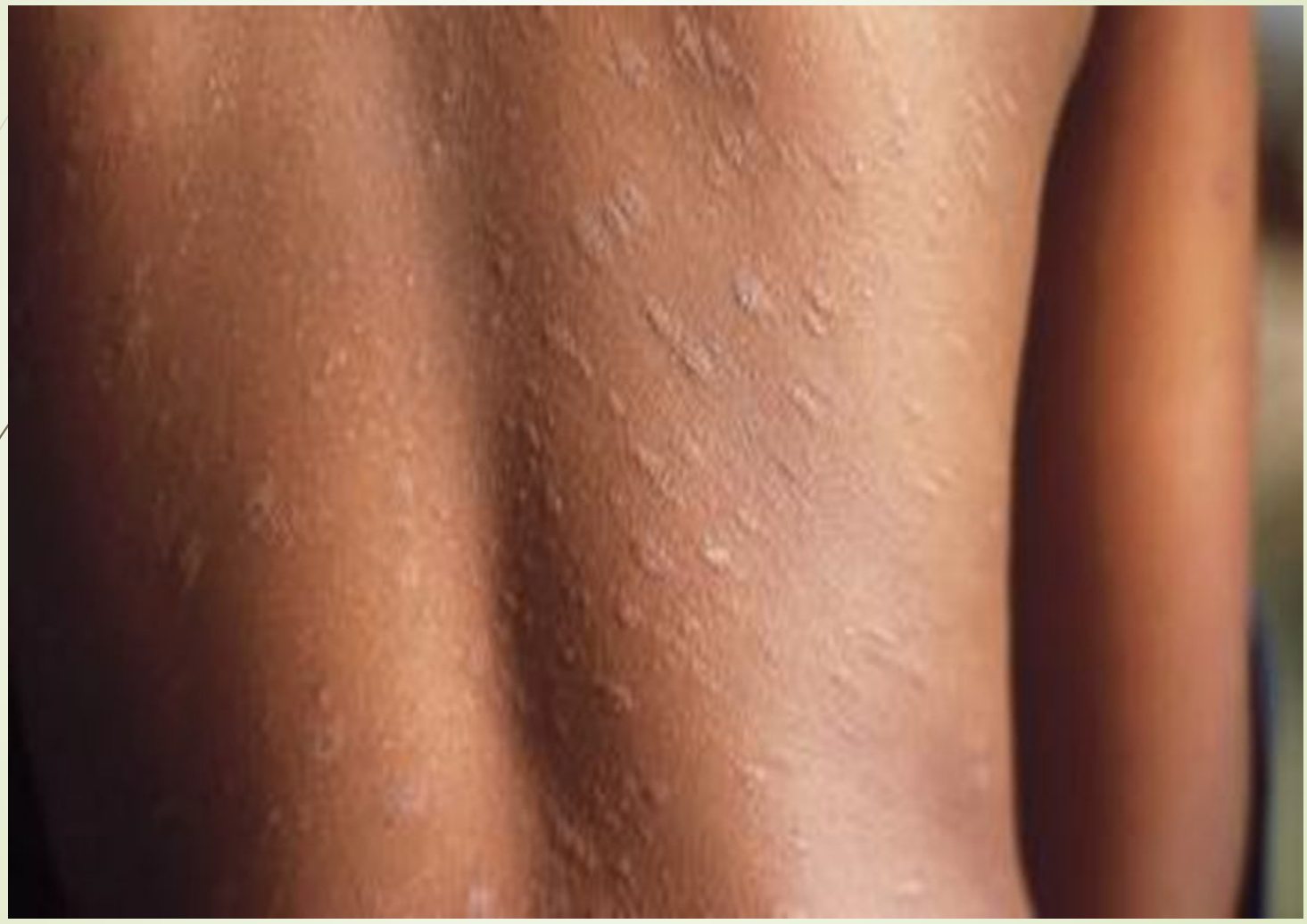




Within 5-15 days

Generalised eruption – discrete oval lesions similar to the herald patch but smaller in size

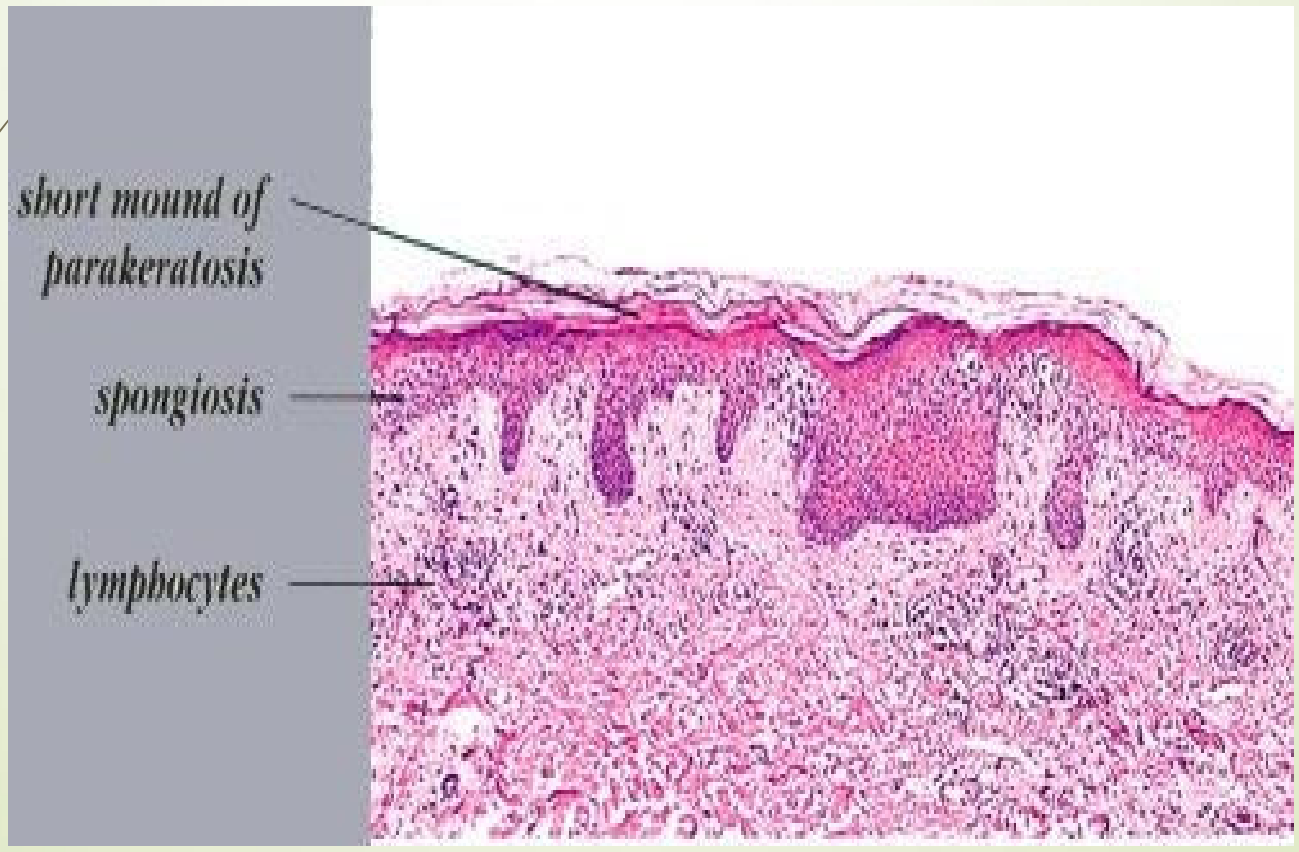
- Upper chest & back – Christmas /Inverted Fir tree pattern.
- Face,scalp – children
- Palms – rare, scaly red plaques / diffuse redness / /small vesicles.
- Oral – ill defined red patches



Atypical / Morphological Variants:

- papules / vesicles / papulovesicular
- urticarial
- erythema multiforme like
- pustular
- purpuric
- lichenoid
- exfoliative dermatitis

- Epidermis – patchy parakeratosis, spongiosis.
- Dermis (upper) – edema , mononuclear cell infiltrate (exocytosis into epidermis forming subcorneal pustules.



TREATMENT :

- Acyclovir (800mg 5 times a day x 1 week)
- Erythromycin (500mg qid x 2 weeks- adult 40mg/kg div.doses – child)
- Oral antihistamines
- Topical steroids- mid potent
- Topical antipruritic lotions
- UVB.

THANK YOU