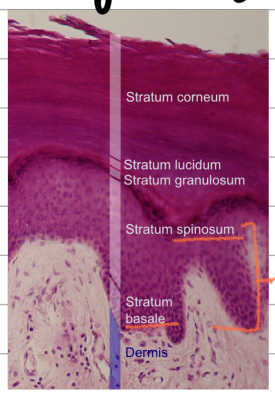
Malpigian layer :



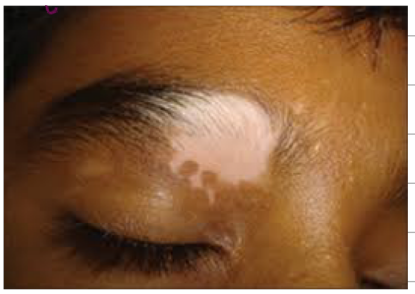
Malpigian layer = St. spinosum + st. basale

Vitiligo :

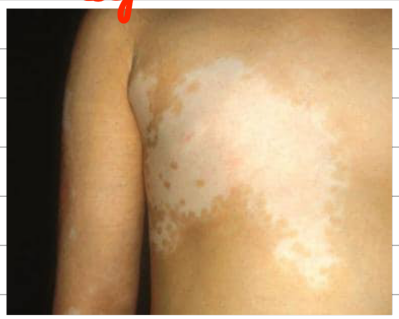
onset : acquired disorder
mechanism: autoimmune hypothesis (m/c)

Rx :
- <20% Body Surface A: • Topical tacrolimus • Topical steroids
- >20% BSA : • Narrow band Phototherapy • Systemic steroids • Azathioprine

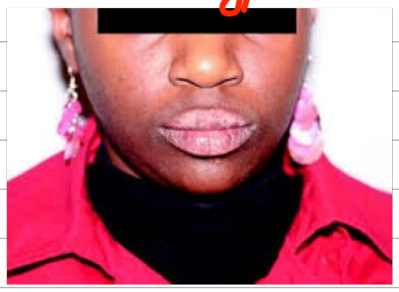
Localized



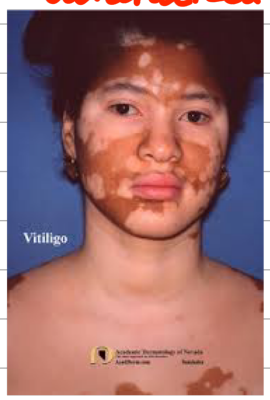
Segmental



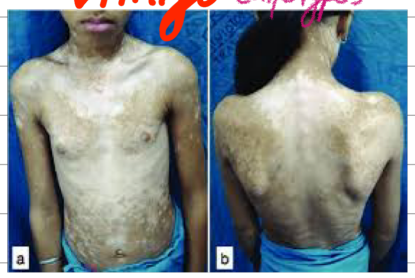
Mucosal type

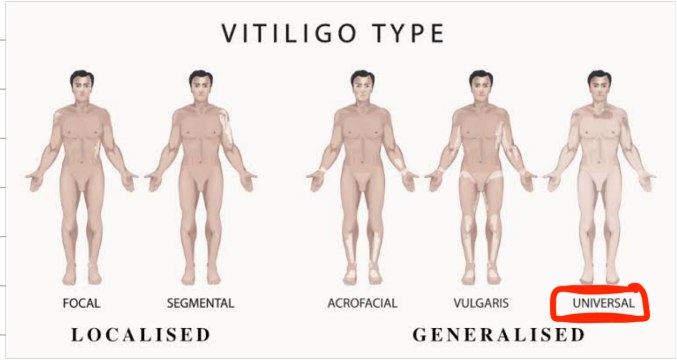


Generalized



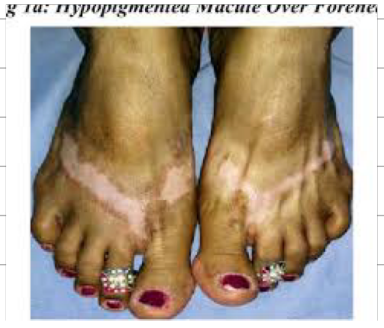
Vitiligo (m/c type)

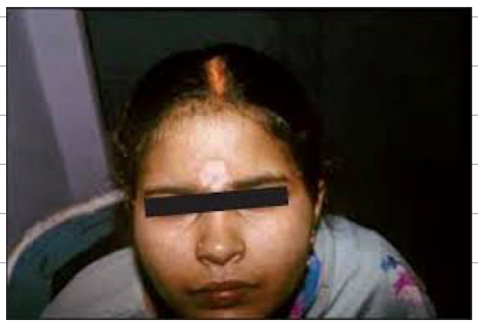




Q. Kobner's phenomenon : along the line of trauma, new lesions start appearing in a vitiligo patient

Leukoderma : is induced destruction of melanocytes





Scleroderma: also known as Systemic sclerosis

(thickening of skin)

↳ F >> M (mostly post menopausal women)

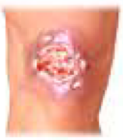
Limited cutaneous
Skin thickening Restricted to distal to the elbow, Knee & face

Diffuse cutaneous
distal & proximal to the elbow & knee, trunk

Pathogenesis: Fibrosis - TGFβ
Vascular dysfunction
Immune dysregulation

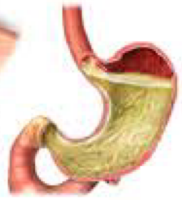
The limited symptoms of scleroderma are referred to as **CREST**

Calcinosis- calcium deposits in the skin



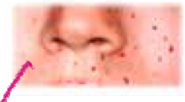
Raynaud's phenomenon- spasm of blood vessels in response to cold or stress

Esophageal dysfunction- acid reflux and decrease in motility of esophagus



Sclerodactyly- thickening and tightening of the skin on the fingers and hands

Telangiectasias- dilation of capillaries causing red marks on surface of skin



Salt & pepper pigmentation

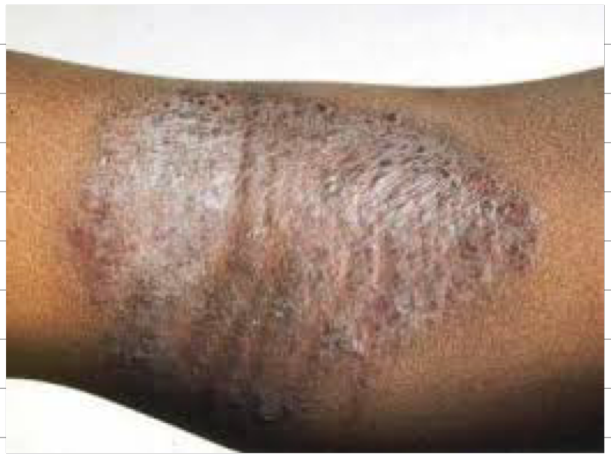
Atopic Dermatitis: It is classified as an endogenous eczema triggered by exogenous agent.

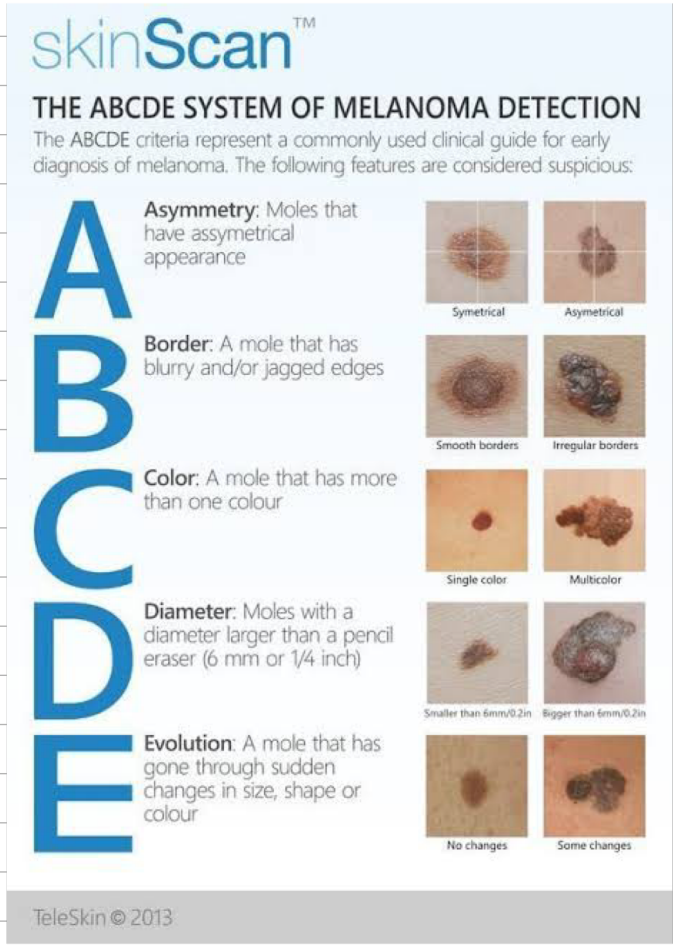
Chronic, Relapsing, inflammatory skin disease.

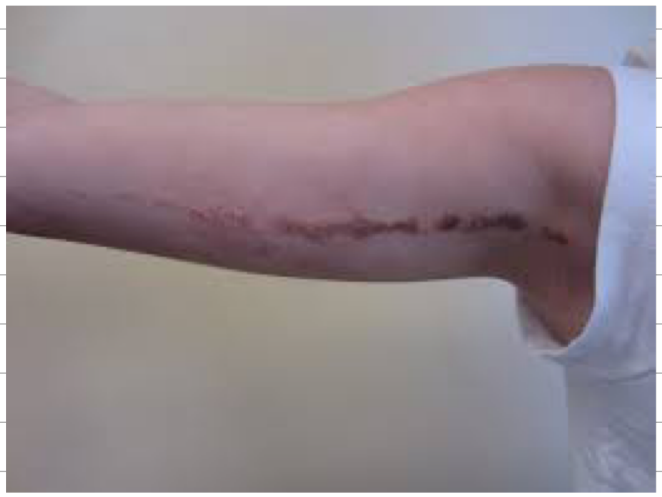
Atopy: Localized form of Type 1 reaction

Pathogenesis:
- Defective barrier function of skin.
- filaggrin mutation
- ↑ IgE response to an allergen

Atopic triad:
- Allergic rhinitis
- Atopic Dermatitis
- Atopic Asthma (Bronchial asthma)





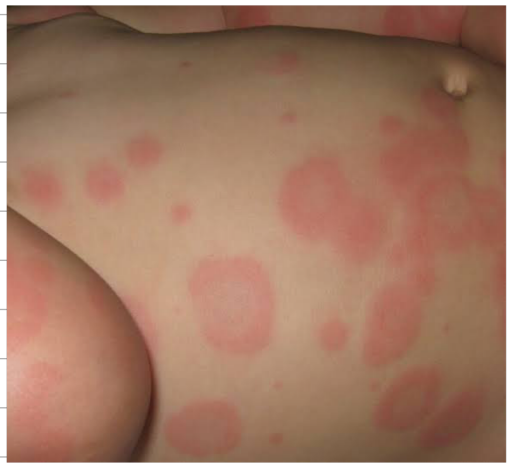


epidermal nevi

Erythema Multiforme : • Acute, immune mediated, self limiting, cytotoxic dermatitis

Aetiology : • Infections : HSV1 (m/c), mycoplasma pneumonia
• Drugs : Antimalarials, NSAIDs, Sulphonamides.
• Connective tissue: Systemic Lupus Erythematosus (SLE) disorder
• Neoplasia : Leukaemia, internal malignancies

Special lesion : Target Lesion with 3 zones.
1. Central Zone : Dusky hue
2. Intermediate zone: Pale oedema
3. Peripheral zone: Erythema

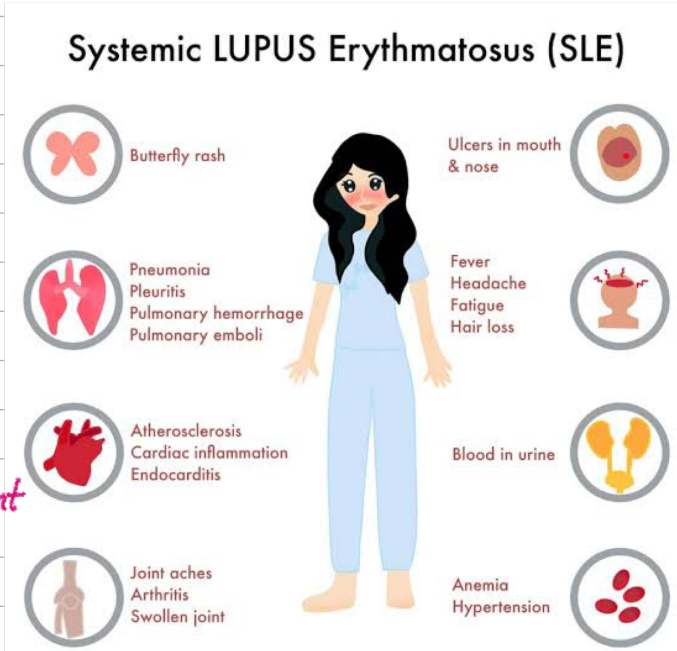


Distribution : Distal extremeties (like palms, soles)

Rx: • Treat the underlying case.
• Short cource of systemic steriods if necessary.

Systemic Lupus Erythmatosus (SLE)

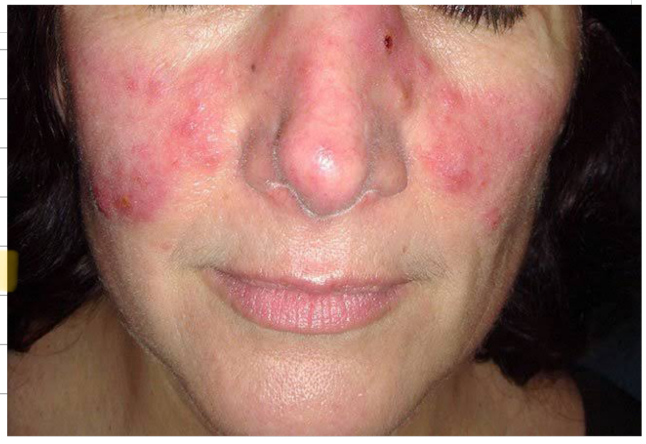
Female : Male
(9:1)
• Disease in females in Reproductive Age group.
• Male SLE : Poor prognosis.
• Childhood SLE : 100% Renal involvement (Lupus Nephritis)



Q. Strongest Genetic factor of SLE: Early Component deficiency
↓
C_1q, C_2, C_4

Q. Single most important genetic factor?
↓
C_1q deficiency.

• TREX gene mutation (present on chromosome 3)



RheumTutor.com

SLICC† Classification Criteria for Systemic Lupus Erythematosus

Requirements: ≥ 4 criteria (at least 1 clinical and 1 laboratory criteria)
OR biopsy-proven lupus nephritis with positive ANA or Anti-DNA

Clinical Criteria

1. Acute Cutaneous Lupus*
2. Chronic Cutaneous Lupus*
3. Oral or nasal ulcers *
4. Non-scarring alopecia
5. Arthritis *
6. Serositis *
7. Renal *
8. Neurologic *
9. Hemolytic anemia
10. Leukopenia *
11. Thrombocytopenia (<100,000/mm^3)

Immunologic Criteria

1. ANA
2. Anti-DNA
3. Anti-Sm
4. Antiphospholipid Ab *
5. Low complement (C3, C4, CH50)
6. Direct Coombs' test (do not count in the presence of hemolytic anemia)

†SLICC: Systemic Lupus International Collaborating Clinics
* See notes for criteria details

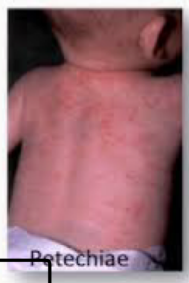
Petri M, et al. Arthritis and Rheumatism. Aug 2012

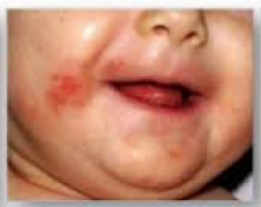
Wiskott Aldrich Syndrome

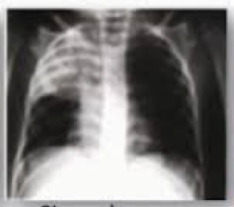
- X-Linked Recessive disorder
- more common in males >>> females
- Pathogenesis:
  - WASP genes defect on chromosome XP11.23
- Decreased IgM, ↑IgA & normal IgG.

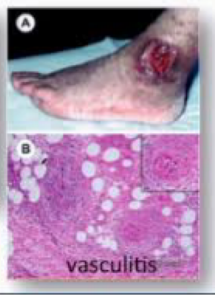
- Clinical features:
  - Affects 1 in 10 of every 1 million male newborns → Defective T cell development
  - Combined immunodeficiency (humoral and cellular)
  - Eczema
  - Thrombocytopenia with small platelets.(↓production; ↑destruction
  - Increased risk of autoimmune disorders and cancers

Triad (only in 1/3rd)


Petechiae


Eczema


Sinopulmonary infection



vasculitis

- Mnemonic: WAITER
  - W - Wiskott, WASP gene Defect
  - A - Aldrich
  - I - immunodeficiency
  - T - T cell deficiency, Thrombocytopenia
  - E - Eczema
  - R - Recurrent infections.

Leprosy / Hansen's disease: is a chronic infectious granulomatous disease predominantly affecting skin & nerve.

- Etiology: Mycobacterium Leprae
  MB Lepromatosis.

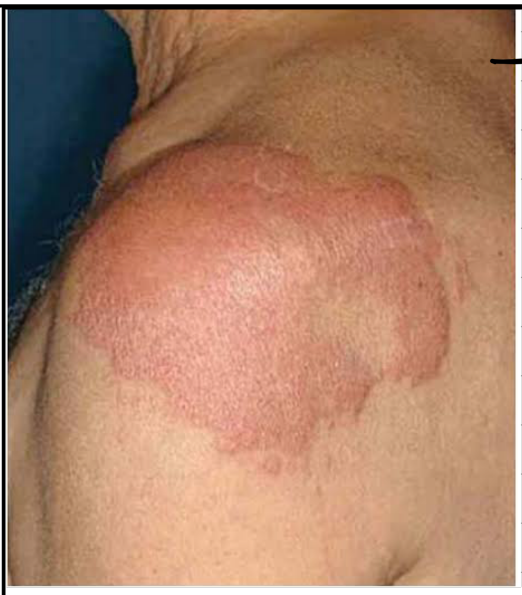
- Incubation Period: 2-5 years.
- Transmission: Respiratory Portal / inhalation (major) & skin to skin contact.
- Staining: Modified Ziehl-Neelsen stain used (5% H_2SO_4)
- Generation Time: 11-13 days
- Pathogenesis: Phenolic glycolipid (PGL-1 of M. Leprae)

5 types of Classifications in Ridley Jopling classification:

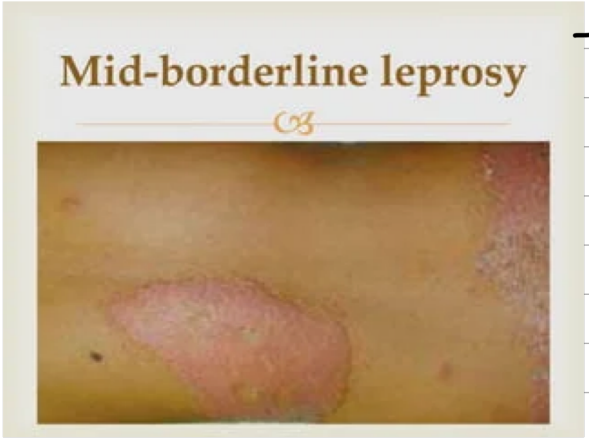
TT - Tuberculoid type
BT - Borderline Tuberculoid
BB - Borderline Borderline
BL - Borderline Lepromatous
LL - Lepromatous Leprosy

↓ Decreasing Cell Mediated immunity (CMI)

→ TT:
- No. of lesions - 1-3
- Morphology - Annular plaque
- Center Lesion - Chgari
- Periphery - Raised margins (Saucer Right way up)
- Associations - Granuloma forms in response to bacteria
  - Loss of Nerve - Anesthesia
  - Loss of Hair - Alopecia
  - Loss of sweat glands - Anhidrosis

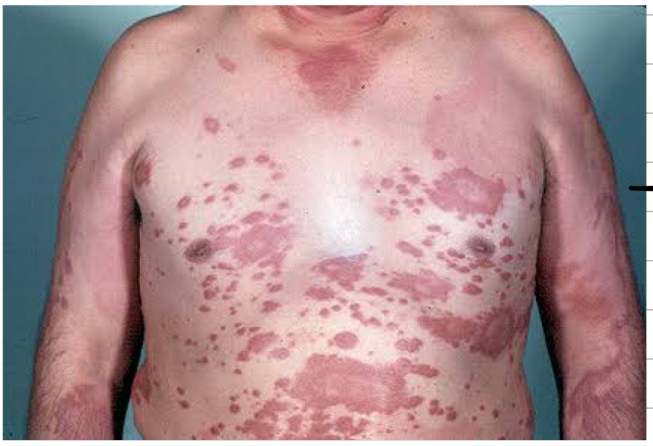


→ BT:
- No. of skin lesions: 3-10
- Margins: Each lesion has well defined and ill defined margins
- Satellite lesions are also seen.

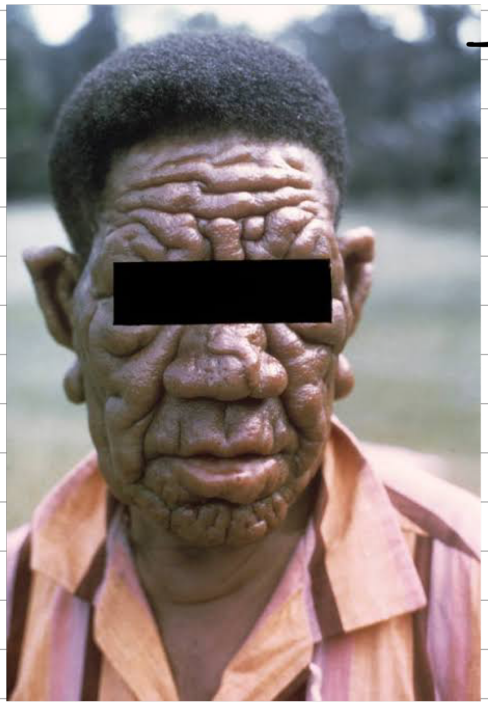


→ **BB**: No. of lesions – 10 – 30
Most unstable form of Hansen's disease.
Polymorphic skin lesions appears like geographic map

- Skin lesions: Dimorphous skin lesions.
  Hence aka Dimorphous Leprosy.
  - Inner border: Punched out.
    Swiss cheese appearance
  - Outer border: Sloping outwards.
    Inverted Saucer appearance.
    (seen both in BB & BL)



→ **BL**:
- Skin Lesions: Numerous, B/L & almost Symmetrical
- Nerve involvement → B/L assymmetrical nerval thickening



→ **LL**: Symmetrical B/L (n) thickening.

- Late features – Leonine Facies – occurs due to diffuse infiltration of the face
  - Madrosis – Loss of eyebrows
  - Glove & stocking Peripheral neuropathy

Scabies: Itchy contagious ectoparasitic infection

Etiology: itch mite → Sarcoptes scabiei var hominis.

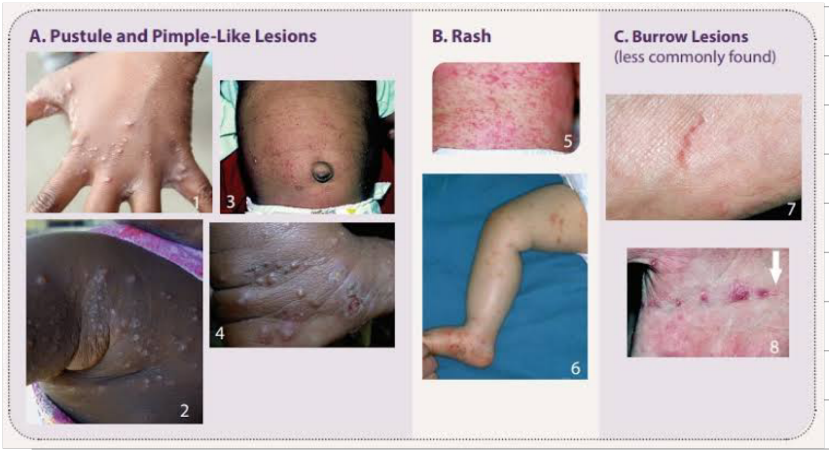
Transmission:
- Close personal contact: Skin to skin contact.
- Also transmitted via Formites like clothes, bedding.

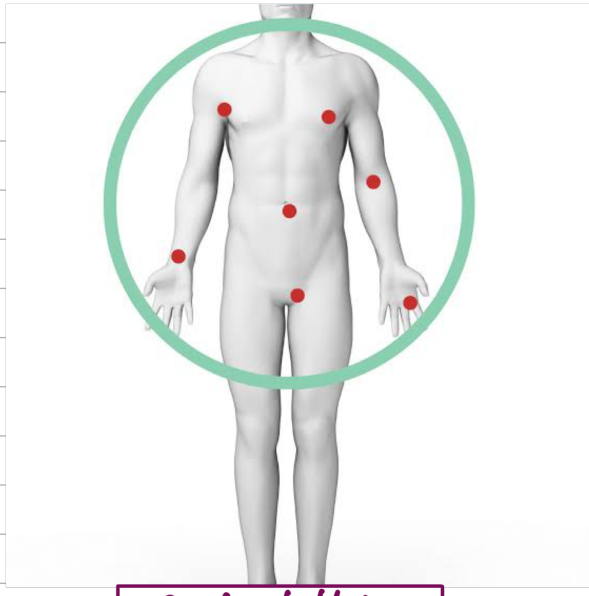
Rx: 5% Permethrin: Best drug.
↓
inhibits Na^+ channels in the parasite → induces paralysis.
- Below neck application, kept for 12 hours.
- Ivermectin – orally – 200ug/kg

Classied as water washed disease.
- Seen with ↓ personal hygiene.

C/F: History of nocturnal pruritus.
- Mite becomes active at night
- Pruritus happen due to delayed Hypersensitivity response to the mite.

Incubation period:
- 1st time: 4 weeks
- Re-infection: 1-2 days.





Circle of Hebra

Sarcoptes scabei/ itch mite

Distribution of scabies: Circle of Hebra.
1. Web spaces of finger
2. Medial aspect of the wrist
3. Medial aspect of the forearm and arm.
4. Axilla
5. Nipple
6. Umbilicus
7. Genetalia and groin.

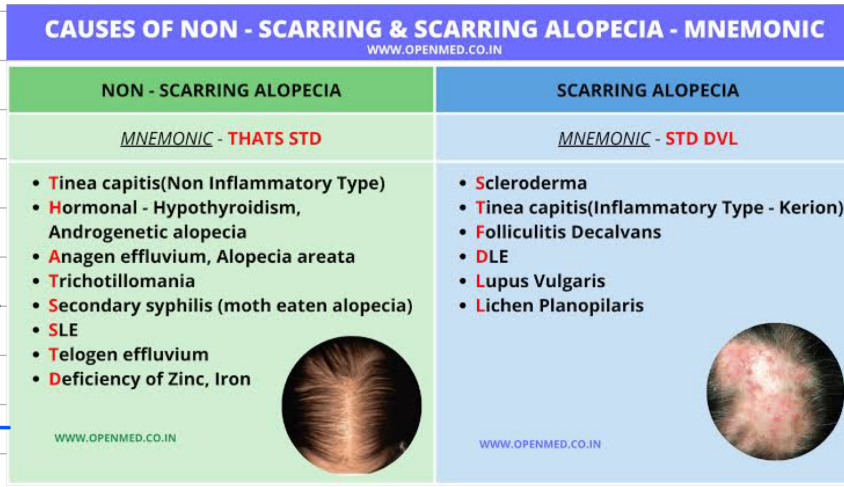
Note: Face is spared in adults (due to red sebum activity that repels mites)

Investigations: KOH mount of skin scrapping.
- The mite is identified by: Two anterior pair of legs.
  Two posterior pair of legs.

Alopecia : Defined as loss of hair.

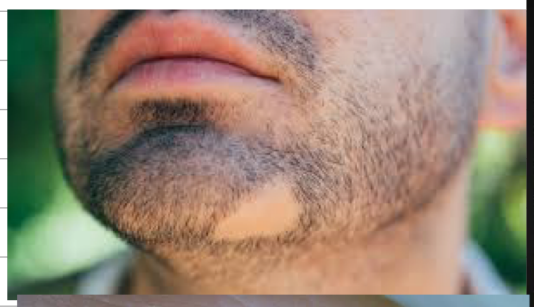
Types : • Non scarring (non-cicatricial)
• Scarring (cicatricial)

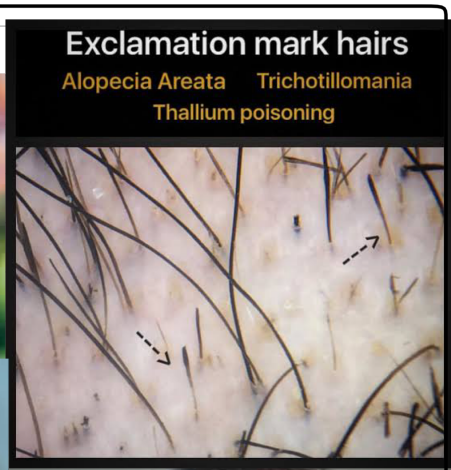
Cicatrix means scar.



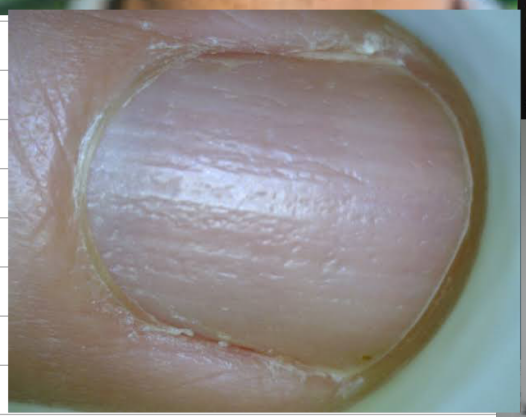
Features	Non-scarring (non-cicatricial)	Scarring (cicatricial)
• Hair follicles	Preserved	Destroyed
• visible sign of inflammation	Absent	Pustules/scaling present
• Course	Generally Reversible	irreversible/permanent

• **Alopecia Areata**
- Autoimmune disease.
- Targets anagen hair bulb.
- Areata : patchy/spotty areas of alopecia.

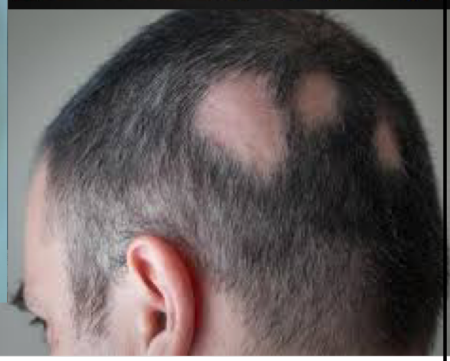




Rx: • Localized disease:
↓
intralesional steroids (Triamcinolone acetonide)

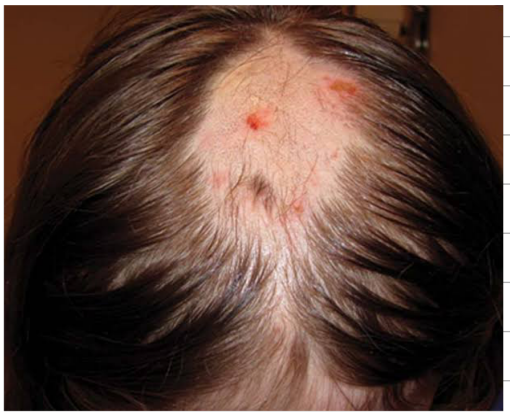


• Extensive disease:
- Systemic
- Azathioprine
- Sufasalazine
- Tofacitinib : Potent JAK-1/JAK-3



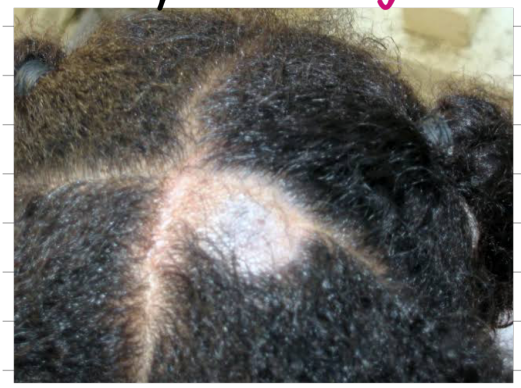
Geometrical pitting : fine, superficial, regular pitting.

Trichotillomania : an obsessive compulsive disorder characterized by pulling out one's own hair.



- incomplete loss of hair within a patch.
- Hair of varying length.
- Perifollicular haemorrage.

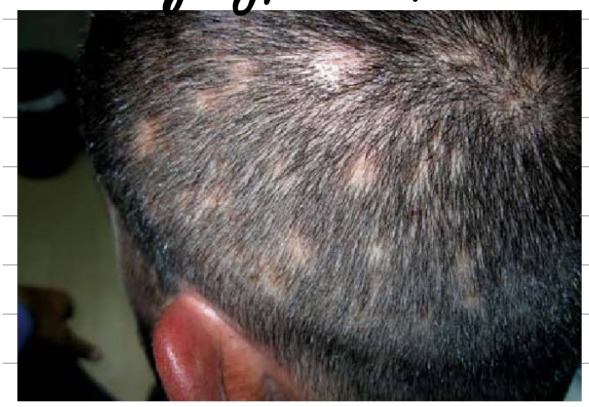
Tinea Capitis : (non-inflammatory) : invasion of Hair shaft.



Types : - Black dot type. (endothrix)
- Grey dot type. (ectothrix)

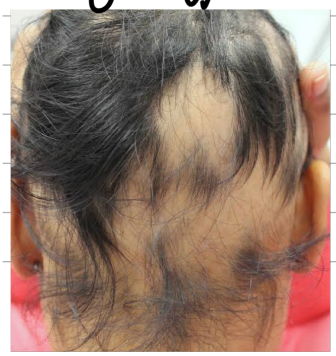
Causative organism: - Trichophyton tonsurans.
- Trichophyton violaceum.

Secondary syphilis alopecia : Moth eaten alopecia.



- Hematogenous dissemination of Treponema pallidum

Anagen effluviam : chemotherapy / radiotherapy (3-4 weeks)



↓

The arrest of hair growth in anagen phase

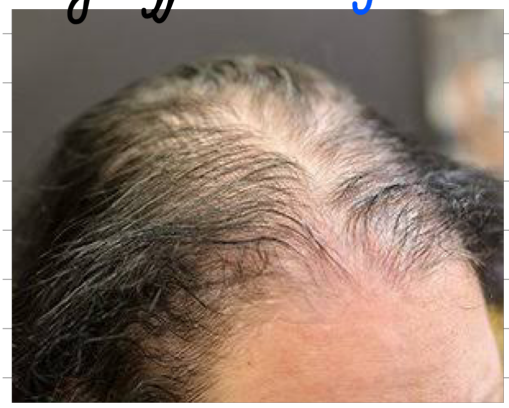
↓

Dystrophic anagen

↓

Hair loss

Telogen effluvium : Major stress / Post pregnancy / infections (malaria, typhoid, COVID-19) / surgical procedures



↓

Premature entery of hair into the telogen phase

↓

3 months Later

↓

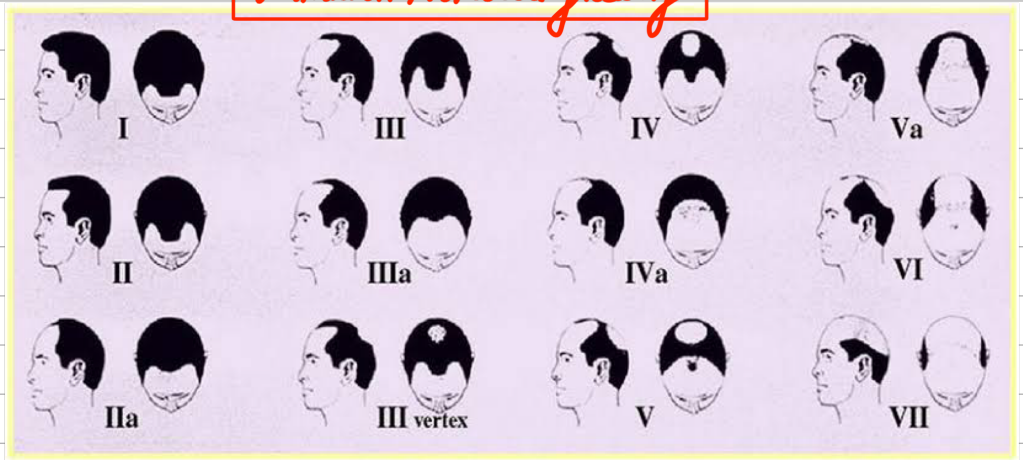
Hair loss

Pattened type / Non-cicatricial alopecia : Testosterone is converted to dihydrotestosterone, which is responsible for thinning of hair & alopecia.

↓

- Synonym: Androgenetic Alopecia.
- Factors: Genetic factor + androgens
- Leads to the Shortening of the anagen phase.
- Miniaturization of Hair follicles.

Hamilton Norwood grading



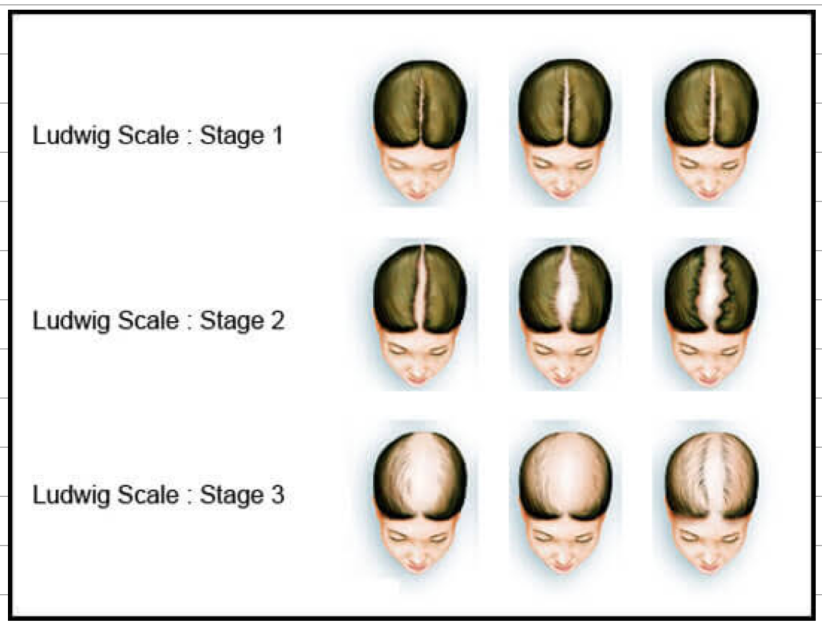
Rx: Monoxidil → ↑ anagen phase

- 2% BD (females)
- 5% BD (Males)

- Finasteride → ⊖ 5α reductase
- Platelet rich plasma therapy
- Hair transplantation.

Ludwig's grading : for female androgenetic alopecia : → Loss of hair over the central portion of the scalp.

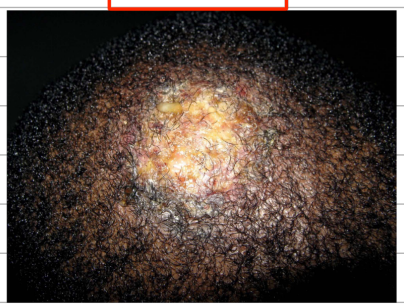
- Frontal hair line maintained.



Favus

Scutula
(yellow cup shaped crust)

Kerion

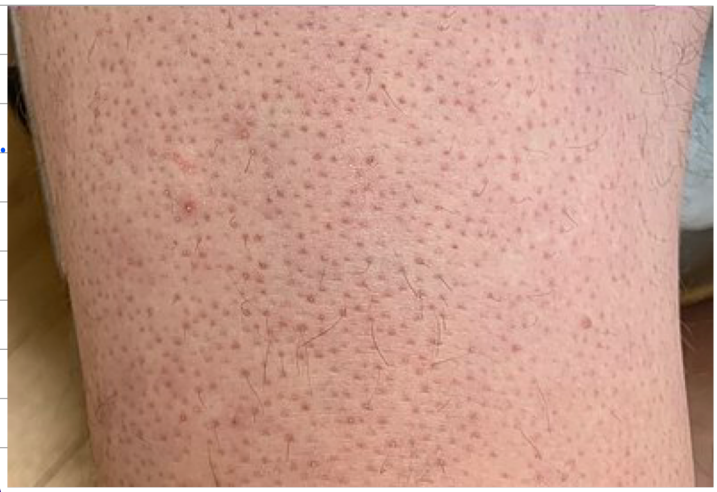


- T. schoenleinii ← Causative organism → Zoophilic fungi: • T. Mentagrophytes & • T. verrucosum.
- Yellow cup shaped crust. ← Lesion → Boggy indurated scalp swelling.
- endemin in Kashmir
- Commonly seen in children

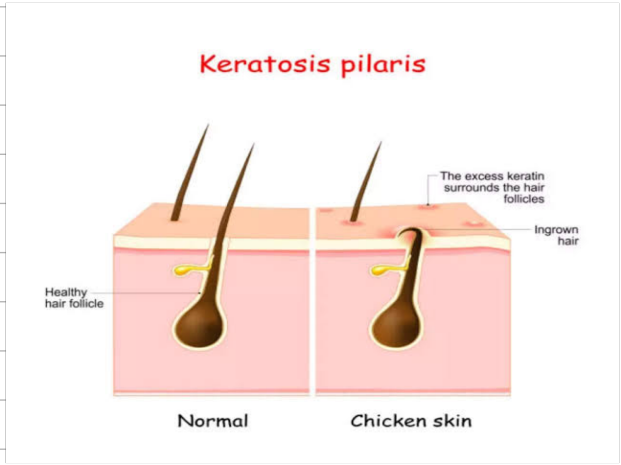
Investigation: 10% KOH mount

Rx: • overall drug of choice for T. capitis : Griseofluvin.
• For T. capitis with trichophyton species : Terbinafine.

Ichthyosis Vulgaris : • Disorder of keratinisation.
• Fish like scales + No inflammation.

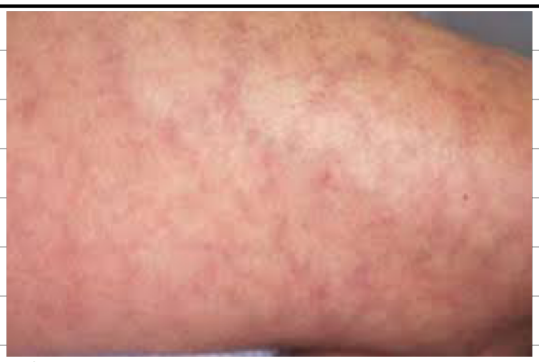


- onset – 3-12 months
- inheritence - AD
- Defect – filaggrin (Filament aggregating protein)
- fine white scales seen.
- Association - • Keratosis pilaris (occlusion of follicles)
  • Hyperlinear palms



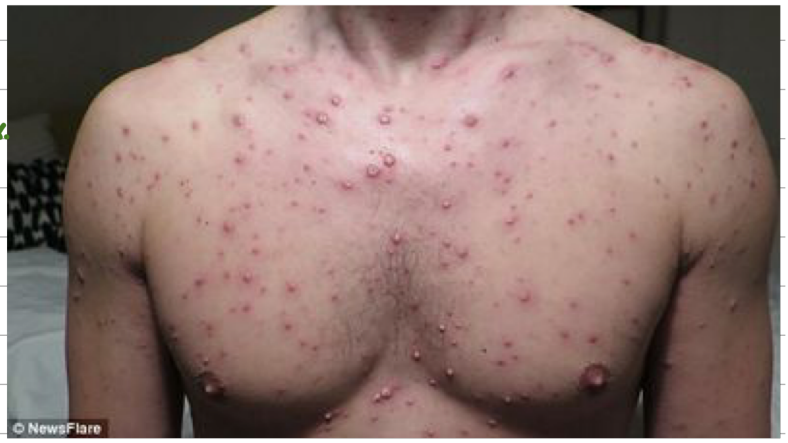
Cutis Marmorata

Cutis → Skin
Marmorata → Marbling



C/F: Disease - Physiologic Vascular response to Cold.
Age group - Seen in Neonates
Lesion - Reticular (network like) Symmetric Marbling.
Site - Trunk, extremities.
Changes with temprature - Warming the child resolves cutis marmorata

Varicella Zoster

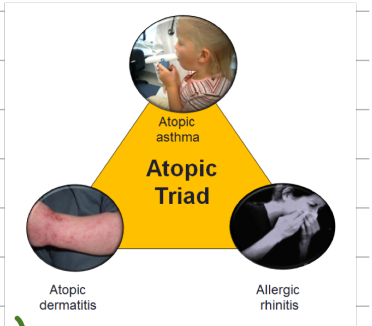


- The Primary infection is varicella / chicken pox.
- On reactivation it can cause Herpes Zoster.

Varicella / Chickenpox:
- incubation period : 14-17 days
- infectious period : 2 days before the rash develops till all the lesions have crusted.
- Lesions: dew drop on rose petal appearance.
- Pleomorphic rash: characteristic of varicella.
- Different stages of rashes in chickenpox are: macules → papules → vesicles → pustules → Scabbing.

Atopic dermatitis

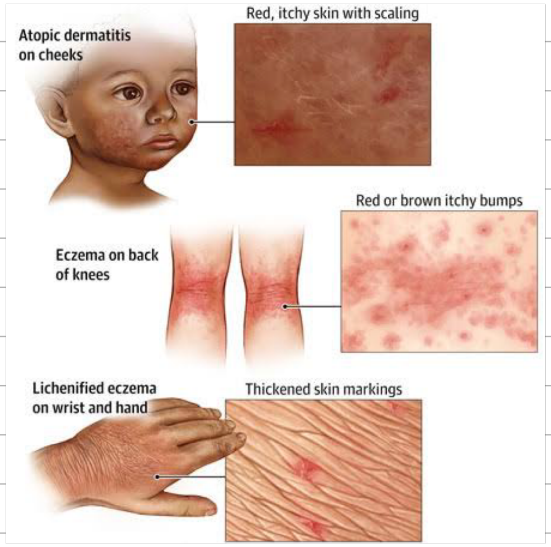
- Chronic Relapsing inflammatory skin disease.
- Atopy: Localized Type1 Hypersensitivity rxn.
- Triad: - History of Allergic rhinitis,
  - Bronchial asthma
  - Atopic dermatitis



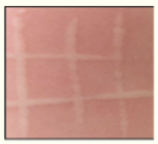
Clinical phases - infantile : upto 2 years (face, scalp, extensors)
- childhood: 2 years to puberty (involvement of flexor)
- Adult : > puberty, Lichenification of flexor

Key diagnostic criteria : Hanifin + Rajka Criteria.

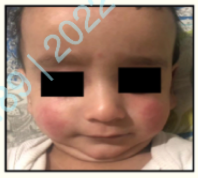
- Pruiritis.
- Typical morphology and distribution.
- Chronic/chronically relapsing dermatitis.
- Personal/ Family History of Atopy.



Skin changes -
If u stroke skin & white lines are formed : white dermographism.

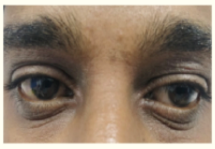


Facial Erythema sparing perinasal, perioral area : Headlight sign.



Eye changes :

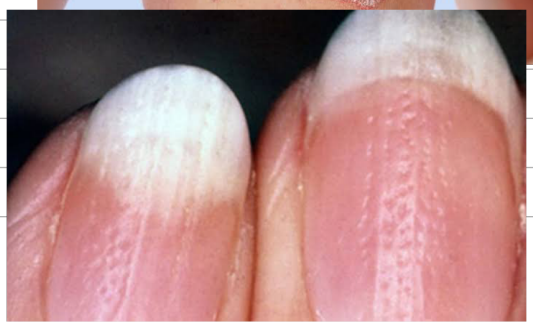
- Conical cornea - Keratoconus.
- Cataract - Sheild cataract (anterior subcapsular).
- Infraorbital skin fold - Dennie morgan folds.
- Lateral madarosis(AD) - Hertoghes sign.



Psoriasis : Chronic, T-cell mediated inflammatory disease that involves skin and other systems.

- HLA CW6 : a/w early onset psoriasis.
- HLA B27 : a/w psoriatic spondylitis.
- PSORS gene (Psoriasis susceptibility gene):
  - Expressed in Chromosome 6.
  - 50% Risk of developing psoriasis.
- Drugs that worsens psoriasis :
  - Lithium
  - Antimalarials
  - B-blockers (anti HTNsive drug)
  - NSAIDs
  - Systemic painkillers
- Infections :
  - Group β-hemolytic streptococci can trigger guttate psoriasis.
  - HIV worsens psoriasis.

- Rx:
  - <10% BSA involved → Topical
  - >10% BSA involved → Phototherapy, Systemic therapy

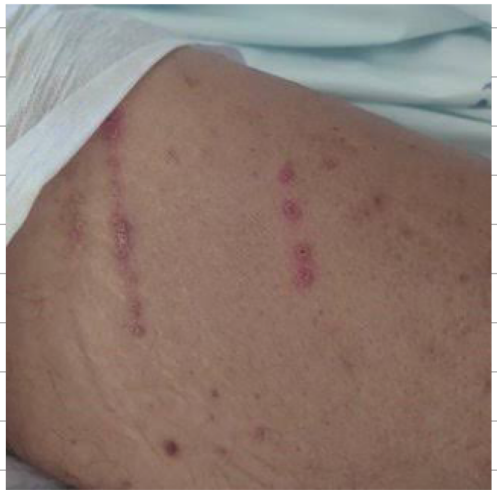


* Systemic steroids are contraindicated.
  ↳ only indication : pustular psoriasis of pregnancy. (impetigo Herpetiformis)

DOC → Acitretin (Oral retinoid)
2nd DOC → Cyclosporine

Koebner's Phenomenon: appearance of morphologically similar lesions along line of trauma over normal skin.

- Implies an active disease.

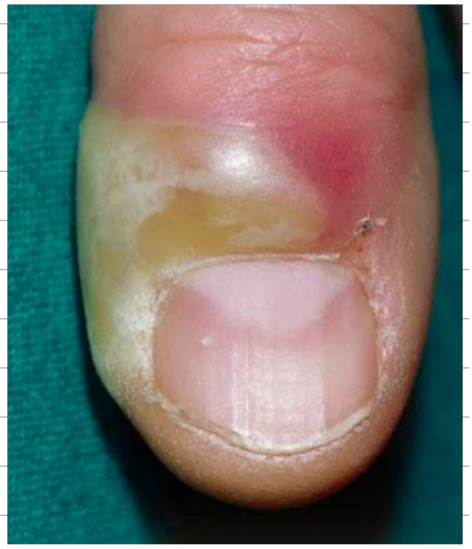


True KP
- Immunologic
e.g. Psoriasis.
Lichen planus
Vitiligo

Pseudo KP
- Auto inoculation
- occurs due to viral infection.
- Lesion multiply in a line following trauma (scratching)
e.g. molluscum contagiosum, viral warts.

Acute Paronychia → Staphylococcus aureus.

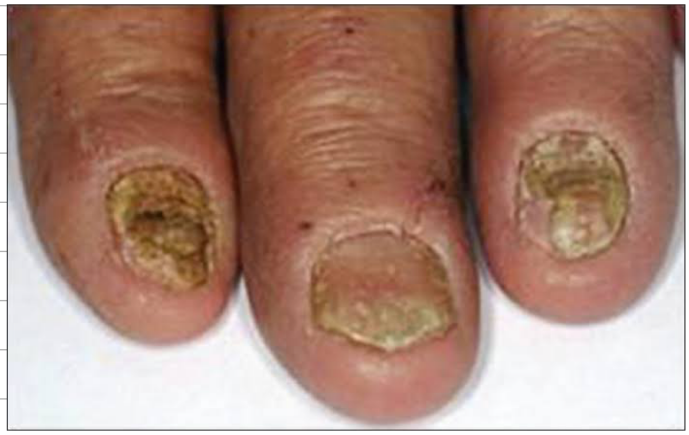
- infection of nail fold.
- Nail fold shows Tender erythema and purulent collection



Rx: • if abscess → Topical / Systemic Anti-Biotics
• if no abscess → Surgical drainage

Chronic Paronychia → candida Albicans

Rx: Anti-fungal + Steroids



Primary lesions:

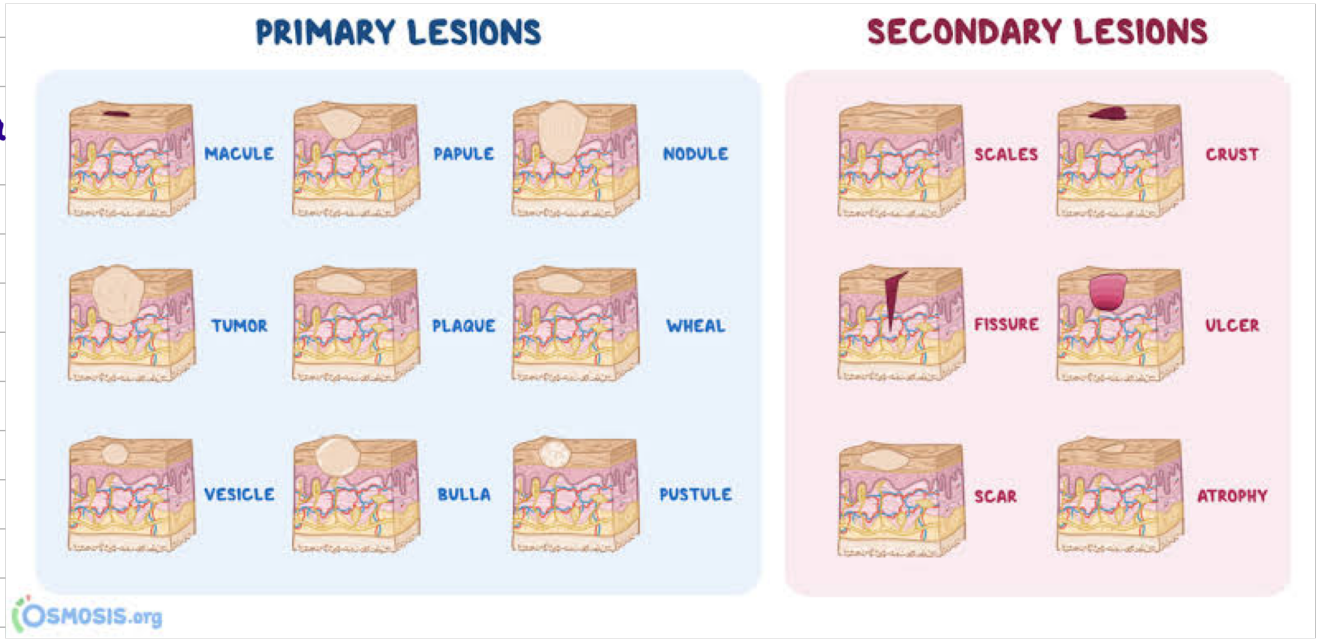
mnemonic: Predatory Poisonous Wasps Viciously Bit on the Nose of My Patient Causing Purulent Pus.

- Papule
- Plaque
- Wheal
- Vesicle
- Bulla
- Nodule
- Macule
- Patch
- Purpura
- Pustule

Secondary Lesions:

mnemonic - 'LEAF SUCKS water'

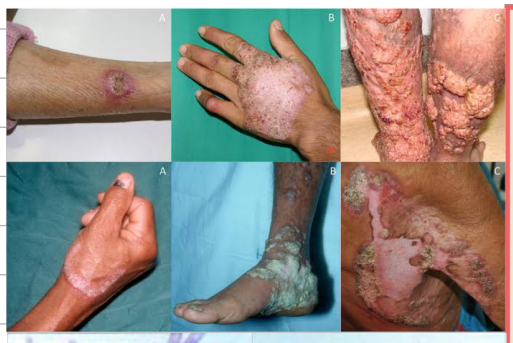
- L - Lichenification
- E - Erosion / Excoriation
- A - Atrophy
- F - Fissure
- S - Scale
- U - Ulcer
- C - Crust
- K - kind-of-hard-to-feel (Induration)
- S - Scar

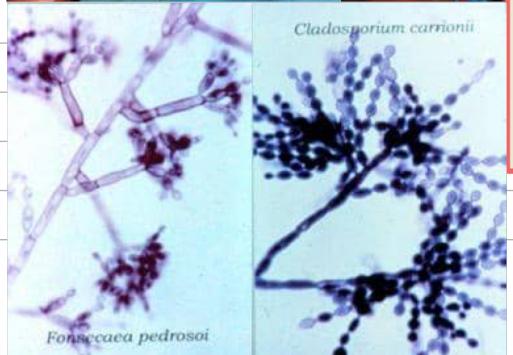


Chromoblastomycosis

- Caused by a coloured fungus. When the fungus gets traumatically implanted into the skin it becomes blasto (rounded)
- It is a slowly progressive disease of the skin and subcutaneous tissue.

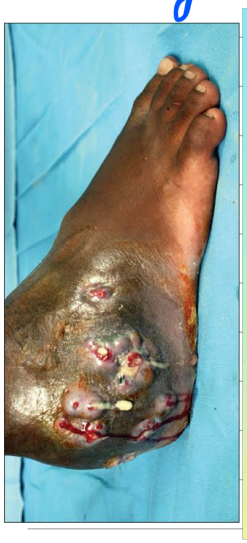
Diagnosis: KOH mount of the skin scrapings.

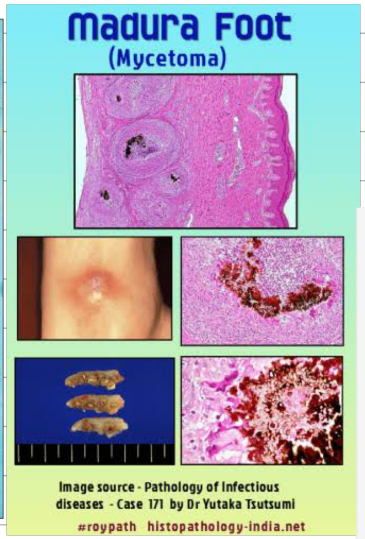




Mycetoma : aka Madura Foot

- Typically described as a chronic granulomatous disease.
- Following the traumatic implantation of the causative implantation weeks to months later a chronic granulomatous disease characterized by manifestations :
  1. Swelling of the involved tissue.
  2. Sinus formation.
  3. Pus or discharge from the sinuses containing granules





Causative agent	Color of the grains
Eumycetoma	
Modurella mycetomatis	Black
M. grisea	Black
Pseudallescheria boydii	White -yellow
Actinomycetoma	
Actinomadura madurae	White -yellow
A. pellitieri	Red-yellow
Nocardia asteroids	White -yellow
Streptomyces somaliensis	yellow
Botryomycosis	
Staphylococcus species	White
Streptococcus species	White
Escherichia coli	White
proteus species	White
Pseudomonas aeruginosa	White
Actinobacillus lignieresi	yellow

Annular Lesions

are figurate lesions characterized by a ring-like morphology.

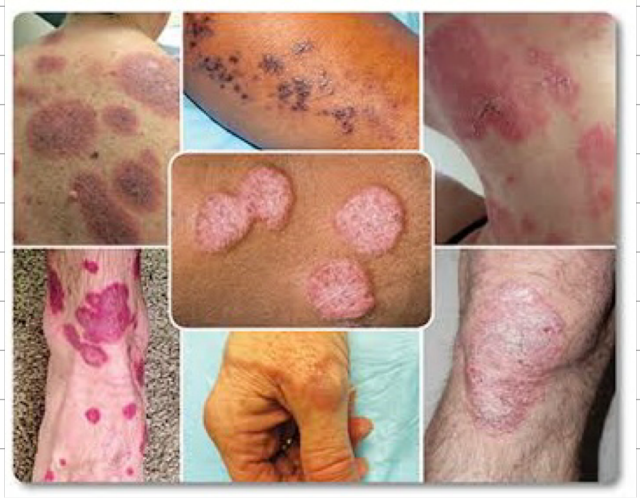


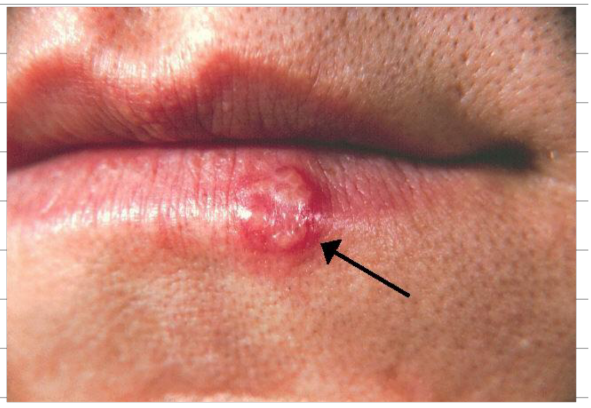
TABLE 1

Diseases That Can Cause Annular Lesions

Common annular lesions	Uncommon annular lesions
Common diseases:	Common disease:
Erythema migrans	Nummular eczema
Erythema multiforme	Uncommon diseases:
Lichen planus	Immunoglobulin A vasculitis
Pityriasis rosea	Sarcoidosis
Plaque psoriasis	Secondary syphilis
Tinea corporis	
Urticaria	
Uncommon diseases:	
Fixed drug eruption	
Granuloma annulare	
Leprosy	
Subacute cutaneous lupus erythematosus	

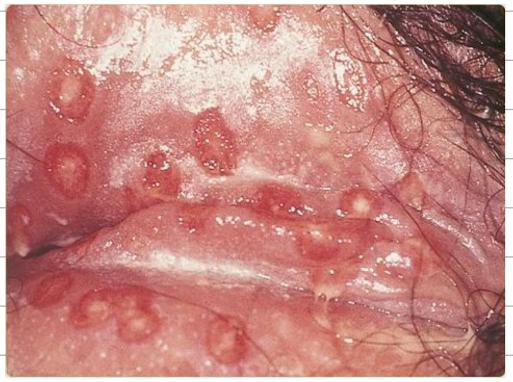
Herpes Labialis

- Vesicles on the lips
- m/c reactivation lesion of HSV-1.



Genital Herpes

m/c manifestation of primary and reactivation of HSV-2.



Diagnosis: Scraping from the base of ulcer
↳ Tzanck smear → Stain with Methylene blue

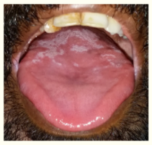
PCR: most sensitive test

Rx: Acyclovir / Valacyclovir / Famciclovir for 2 to 3 weeks

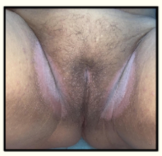
Candidiasis

Candidiasis:

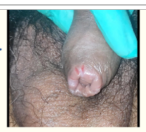
1. Oral candidiasis
   - White plaques → White pseudomembranous candidiasis (false membrane which can be rubbed off). AKA oral thrush.
   - Red plaques → Atrophic candidiasis



2. Candidial intertrigo
   Disease: Candidiasis which involves the intertriginous areas.
   Lesion: Red macerated plaques (wet and soft to touch), small satellite pustules in the periphery.

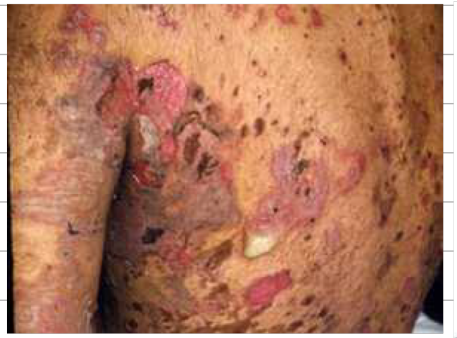


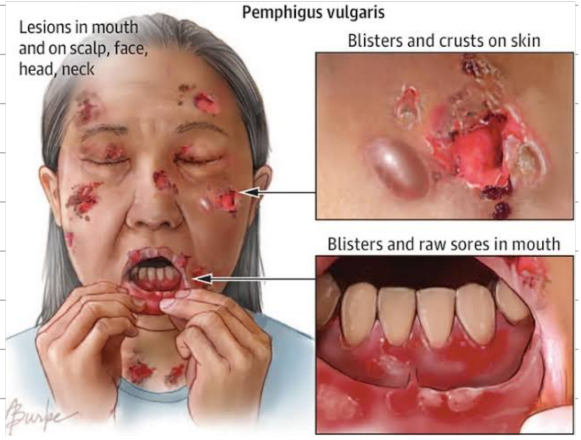
3. Candidial balanoposthitis
   Feature: Radial fissuring over prepuce.
   Association: Diabetes mellitus.



Treatment of candidiasis:
Fluconazole.

Pemphigus Vulgaris

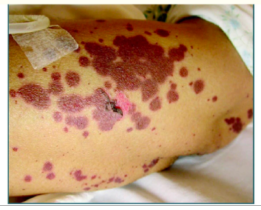




- Age grp : 40 - 60 years
- Clinical profile :
  - Flaccid bullae
    - Erosions
      - Tend to extend
      - No tendency to heal

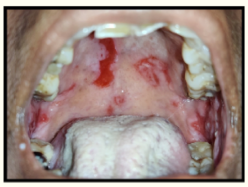
Clinical signs :

1. Nikolskiy Sign
   - Procedure : Tangential pressure : Applied over Skin.
   - Observation : Upper Layers of epidermis separate from lower layers due to acantholysis.



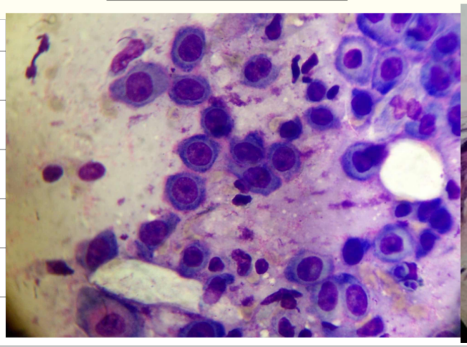
2. Bulla Spread Sign :
   - Procedure : Pressure over bulla.
   - Observation : Irregular angulated margin.

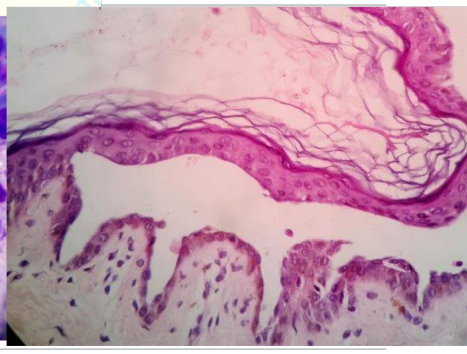
Oral mucosa :
Oral lesions should not be misdiagnosed as aphthous ulcers.
Oral pemphigus presents with painful erosions in 90-95 % patients.



Investigations :

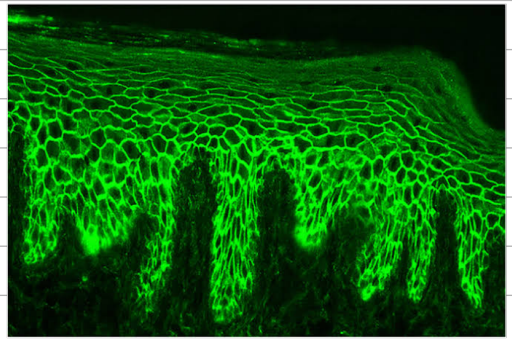
1. Tzanck cells or acantholytic cells.





2. Histopath →
   - Suprabasal split
   - Acantholytic cells
   - intact Stratum basale : Raw of tombstone appearance.

3. Direct immuno fluorescence :
   - Investigation of choice.
   - Direct detection of pathogenic auto antibodies.
   - IgG +C3 is deposited in P.vulgaris.
   - Deposited in intraepidermal intercellular.
   - Pattern : Fish net pattern.



Rx:

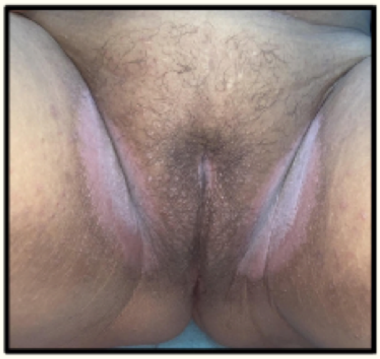
1. High dose Systemic Steroids.
2. Cyclophosphamide :
   Side effect : Hemorrhagic cystitis.
3. Rituximab :
   Anti CD 20 used in the management of moderate to severe P. vulgaris.

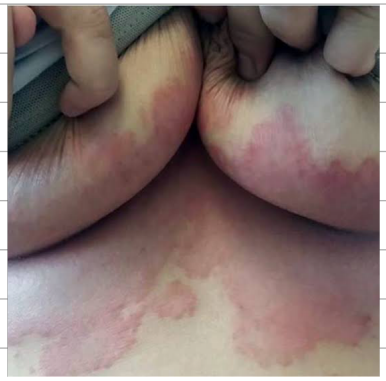
Candidal intertigo

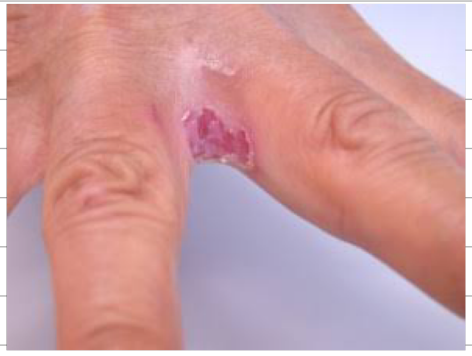
Candidial intertrigo

Disease : Candidiasis which involves the intertriginous areas.

Lesion : Red macerated plaques (wet and soft to touch), small satellite pustules in the periphery.

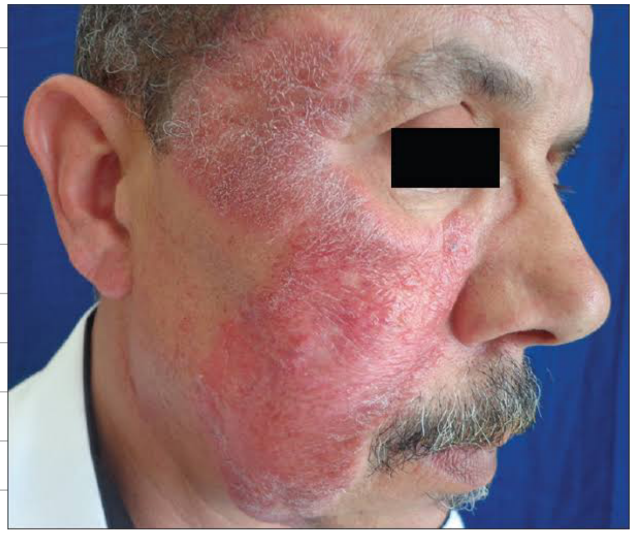


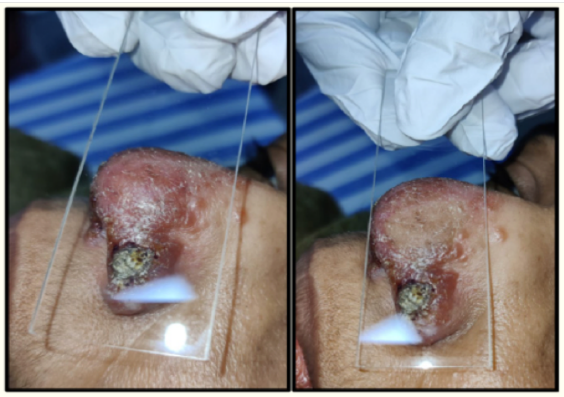




Lupus vulgaris

Route : Exogenous/ endogenous.
Bacillary status : Paucibacillary (good prognosis)
Lesion : Annular infiltrated plaque.
Centre shows atrophy + scar
Periphery shows extension
Sites : Buttocks, face, extremities.
Diascopy : Apple jelly nodules.

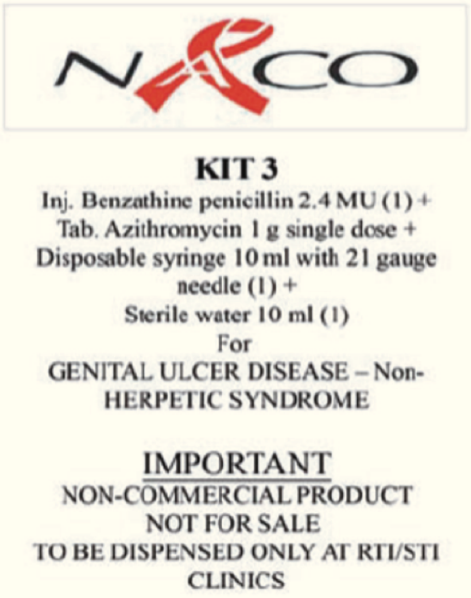




KIT 1/Grey

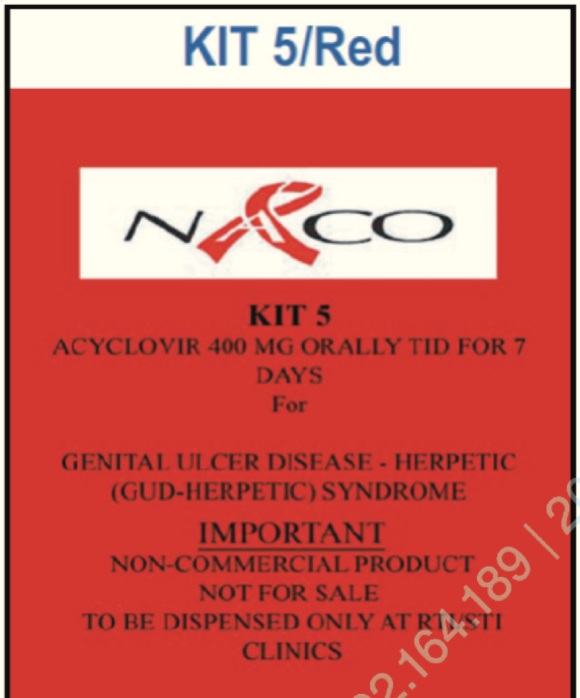
KIT 2/Green

KIT 3/White

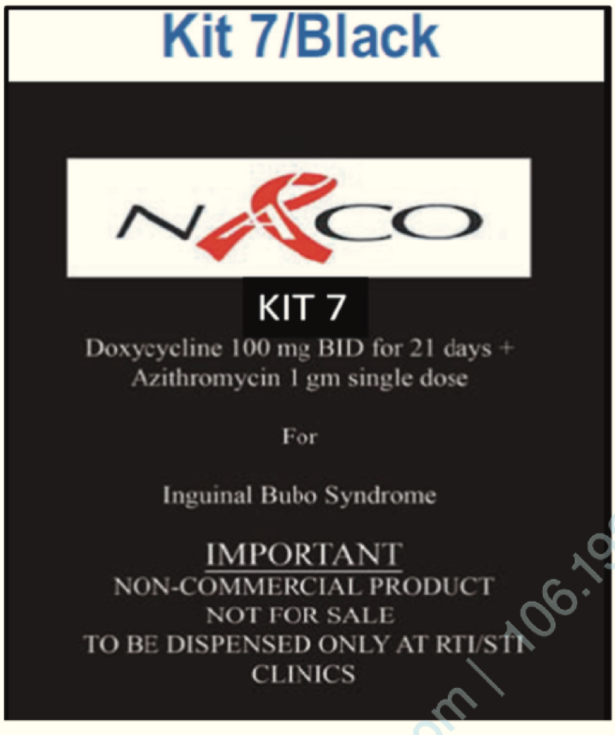


KIT 4/Blue

KIT 5/Red



Kit 7/Black



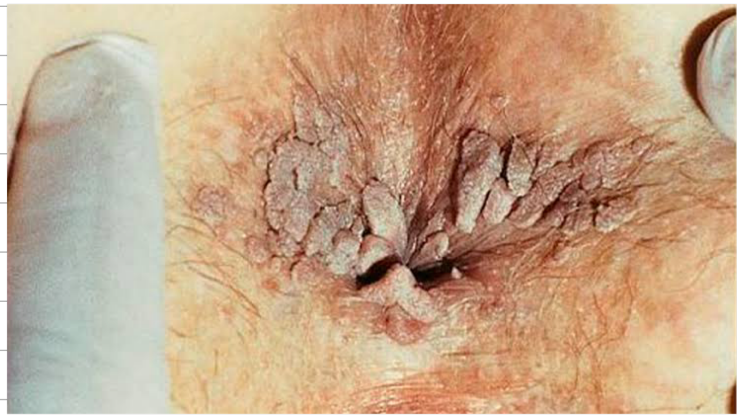
Genital warts

Anogenital warts :

AKA condyloma acuminata (acuminata = pointed).

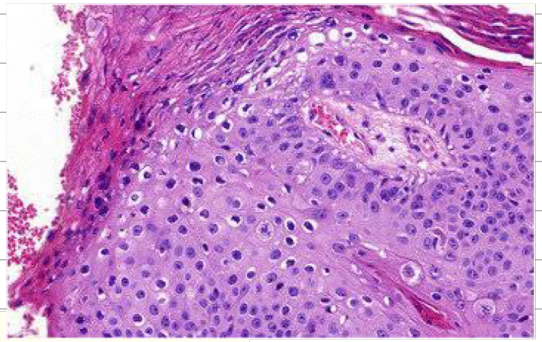
Etiology

- HPV 6, 11 → (low risk HPV, 90% cases)
- HPV 16, 18 → (High risk HPV, 10% cases)



C/F:
- Asymptomatic, fleshy, Pink pointed papules and plaques.
- Cauliflower like lesions.

Histopath : Koilocyte (HPV infected cell)
- Squamous epithelial cell
- Central Hyperchromatic nucleus
- Perinuclear halo.



Treatment

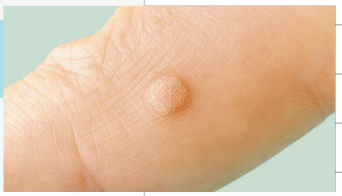
- Non pregnant
  - Podophyllin → Targets : mitotic spindle
  - Imiquimod → TLR-7 agonist, acts as immune response modifier
- Pregnant
  - Cryotherapy → By Liquid N_2 at -196°C (TOC)
  - TCA 70-80% → Chemical coagulation of the proteins

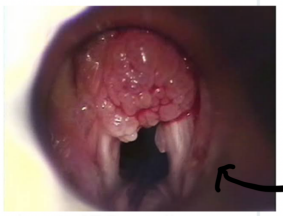
Trichomoniasis Rx

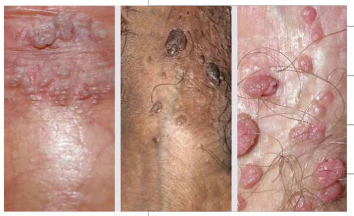
Drug	Dose	Duration	+/- Notes
1st choice options			
Metronidazole	2g PO	Single dose	• Avoid 2g dose metronidazole in pregnancy, breast-feeding and elderly. • Avoid alcohol during metronidazole treatment and for 48 hours afterwards (disulfiram reaction).
OR			
Metronidazole	400mg every 12 hours PO	5-7 days	

Human Papilloma Virus (HPV) and Associated Lesions

HPV serotype	Lesions
HPV 1,2,3,4	• Common warts (verruca vulgaris, plantar wart)
HPV 6 and 11	• Condyloma acuminatum (genital warts) • Sinonasal papilloma • Squamous papilloma of the larynx
HPV 16	• LSIL, HSIL, carcinoma cervix • Vulval carcinoma • Bowen disease (Carcinoma in situ of male external genitalia) • Oropharyngeal squamous cell carcinoma
HPV 18	• LSIL, HSIL, Carcinoma of the cervix • Carcinoma of the anogenital region
HPV 5 and 8	• Squamous cell carcinoma of the skin in epidermodysplasia verruciformis patients



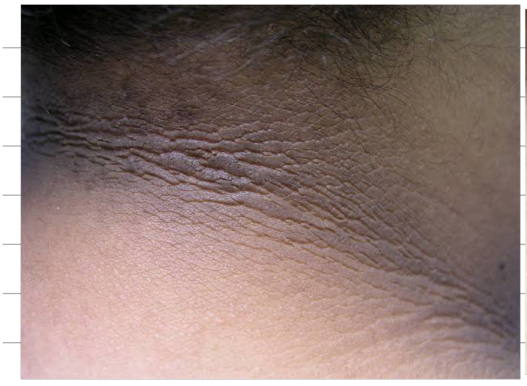


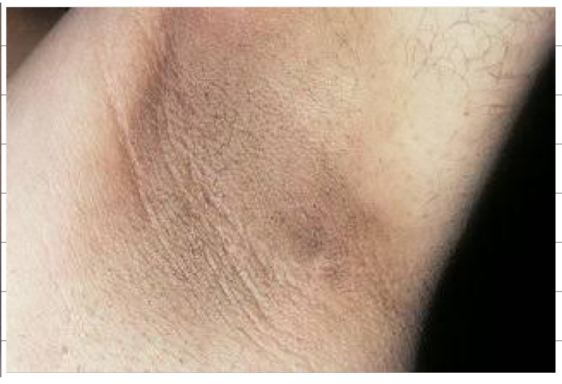


Acanthosis nigricans → Hyperpigmented velvety plaques.

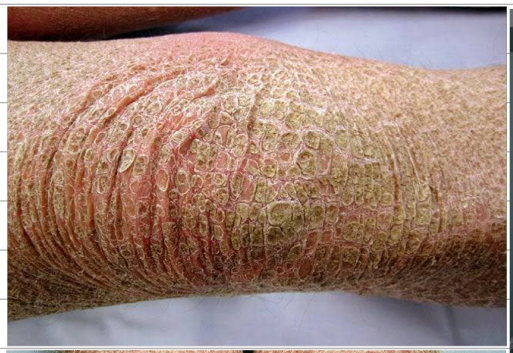
- Sites: Neck, axilla.
- m/c/c: Obesity
- Mechanism: in obesity → increased like growth factor → Stimulate epidermal keratinocytes.

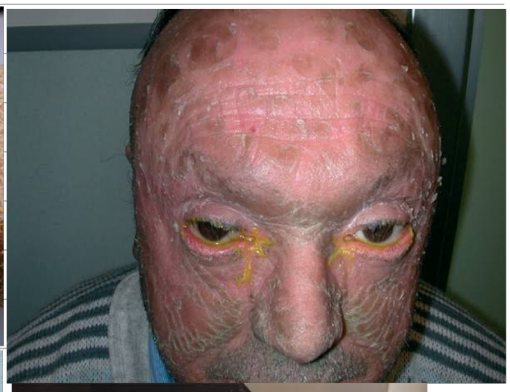
Other causes: Diabetes, drugs and GI adenocarcinoma (rare)

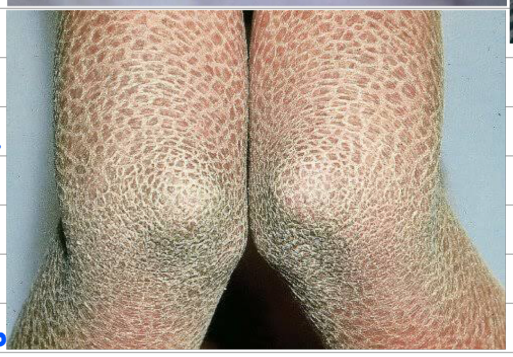




Lamellar Ichthyosis







- Onset at birth.
- Autosomal Recessive
- Defect in epidermal transglutaminase 1.
- At birth, the child's body is covered with parchment like transluc-cent membrane called collodion membrane.

Gradually, this membrane turns to dark plate like adherent scales.

Rx: Topical : Emollients
Systemic : Retinoids (Acitretin).

Melanoma

Risk factors:
- UV radiation
- White population.
- Familial atypical mole melanoma Syndrome: Also predispose patient to (pancreatic adenocarcinoma)

Biopsy :
- Melanin pigment seen.
- Important prognostic factor : depth of invasion.

Types :
- Superficial spreading : m/c type (seen in : young, sun exposed areas)
  - m/c melanoma developing in pre-existing mole.
- Lentigo maligna : aka Hutchinson's melanotic freckle.
  - In situ : Hence best Prognosis.
  - Seen in Elderly.
- Acral melanoma : In dark skin patients.
  Seen in palms, soles.
  Rapid Vertical phase : hence aggressive in nature.
- Nodular melanoma : Appear as Nodule.
  Rapid vertical phase.
  Worst prognosis

- Desmoplastic melanoma :
  - Head and neck region.
  - Perineural invasion present : Also seen in adenoid cystic carcinoma in Salivary glands.
  - Increased Local recurrence rate.
- Subungual melanoma :
  - Melanoma beneath nail bed.
  - In it Superficial spreading type is more Common than acral melanoma beneath the nail bed.

Changes in naevus : Asymmetry
Border - irregular
Colour change
Diameter > 6mm
Evolution

Immunohistochemical marker : S-100
HMB-45
MELAN-A

2 Staging classification :
- TNM staging
- Clarke and Breslow staging.

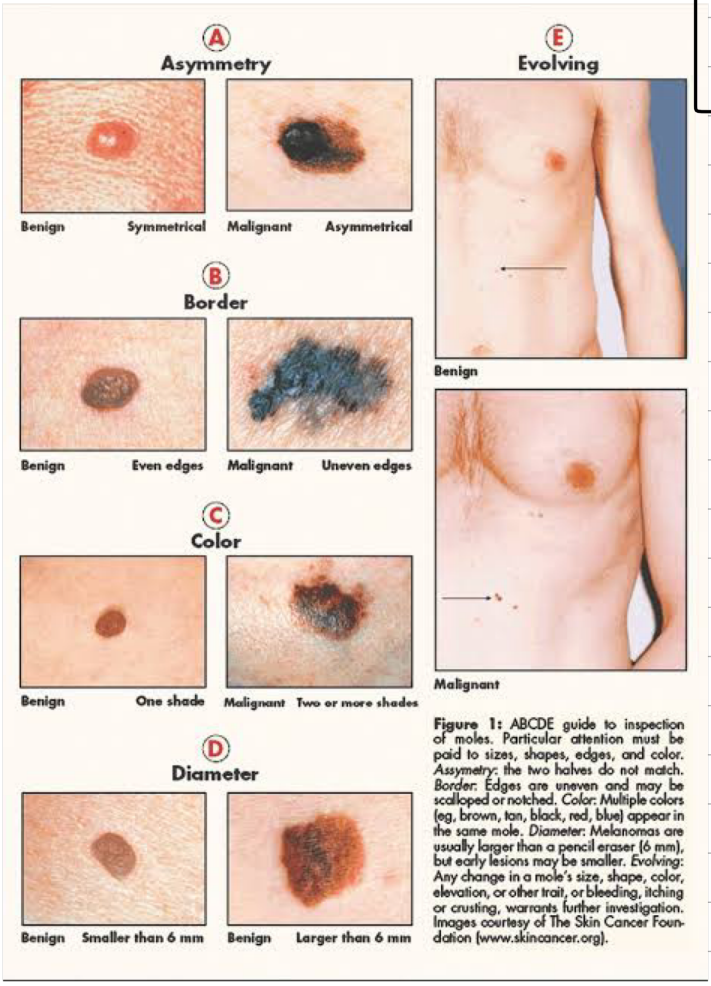


Figure 1: ABCDE guide to inspection of moles. Particular attention must be paid to sizes, shapes, edges, and color. *Assymetry:* the two halves do not match. *Border:* Edges are uneven and may be scalloped or notched. *Color:* Multiple colors (eg, brown, tan, black, red, blue) appear in the same mole. *Diameter:* Melanomas are usually larger than a pencil eraser (6 mm), but early lesions may be smaller. *Evolving:* Any change in a mole's size, shape, color, elevation, or other trait, or bleeding, itching or crusting, warrants further investigation. Images courtesy of The Skin Cancer Foundation (www.skincancer.org).