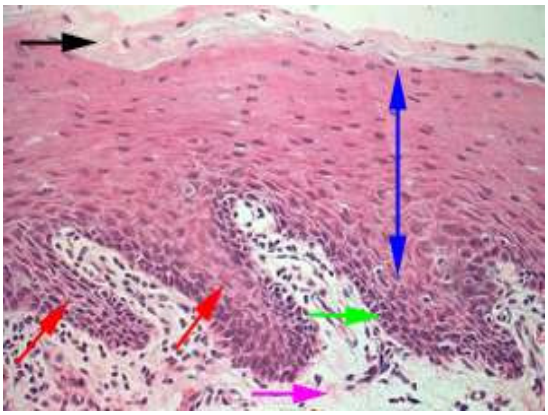
White lesions of the oral mucosa



❖ Classification:

❶ Hereditary

- Oral Epithelial Naevus
- Pachyonychia Congenita
- Dyskeratosis Congenita
- Tylosis
- Hereditary Benign Intraepithelial Dyskeratosis
- Follicular Keratosis
- Leukoedema

❷ Traumatic

- Mechanical (Frictional Keratosis)
- Chemical
- Thermal

❸ Infective

- Candidosis
  - Acute Pseudomembranous
  - Chronic Hyperplastic
  - Chronic Mucocutaneous
- Syphilitic Leukoplakia
- Hairy Leukoplakia

❹ Idiopathic

- Leukoplakia

❺ Dermatological

- Lichen Planus
- Lupus Erythematosus

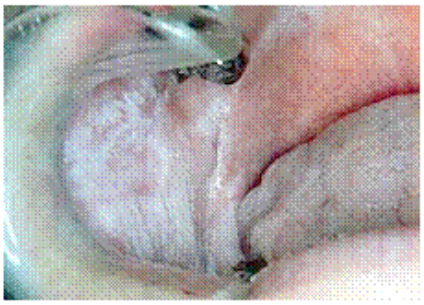
❻ Neoplastic

- Carcinoma-in-situ
- Squamous cell carcinoma

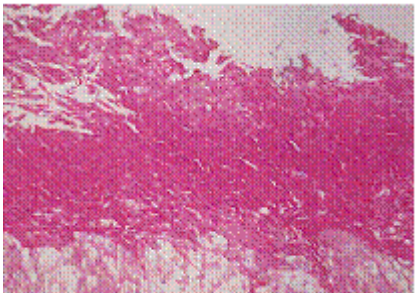
Hereditary Lesions

Oral Epithelial Naevus (White Sponge Naevus):

- Autosomal D



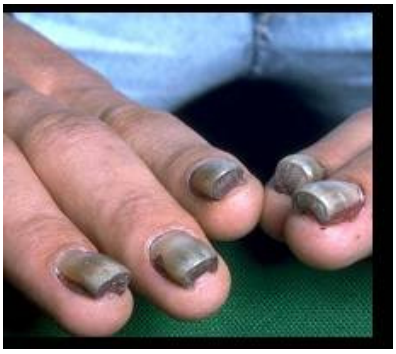
- **Clin**:
  - Asymptomatic
  - Whitish, soft, translucent & irregularly thickened
  - Usually bilateral (all OM)
  - Border
  - Other sites



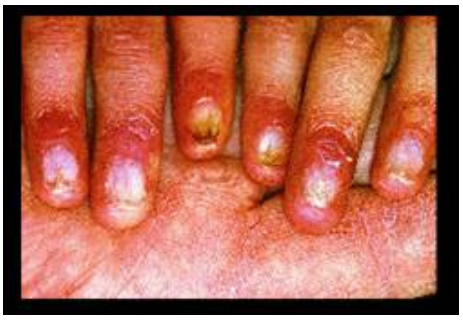
- **Hist**:
  - Acanthosis
  - Moderate-marked Hyperparakeratosis
  - Marked intracellular oedema (prickle & parakeratin)
  - × Dysplasia
  - × Inflammation in LP

Pachyonychia Congenita:

- AD
- Extreme thickening of nails (≈ birth)
- Palmoplantar hyperkeratosis & hyperhidrosis
- White patches on D or LB of tongue or buccal m
- Hist ≈ WSN

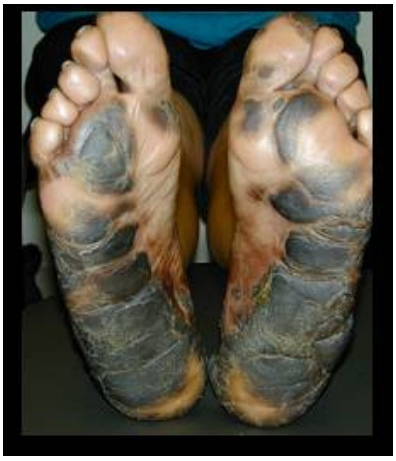


Dyskeratosis Congenita:



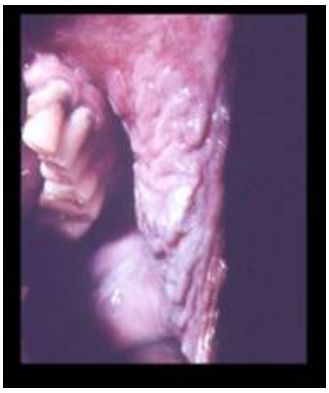
- ? Mode of inheritance
- Pigmentation of skin
- Dystrophic nails
- Destructive periodontitis
- Hyperkeratosis of oral & other MMS: premalignant

Tylosis:



- AD
- Palmoplantar hyperkeratosis
- Esophageal Ca in later life
- ± Oral hyperkeratosis

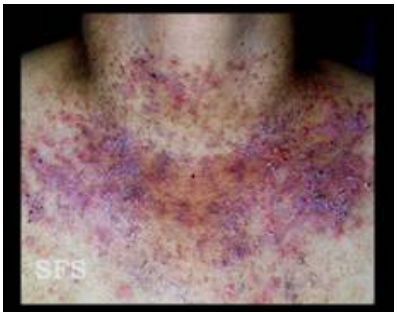
Hereditary Benign Intraepithelial Dyskeratosis:



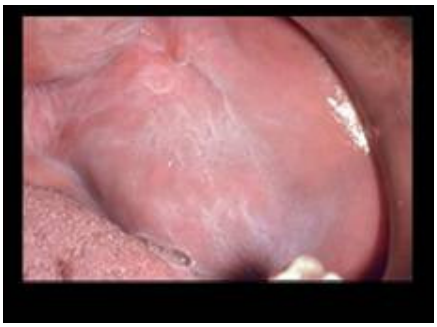
- AD (North Carolina)
- Conjunctivitis
- Oral white folds and plaques
- **Hist**: acanthosis & premature keratinization

Follicular Keratosis (Darier's disease):

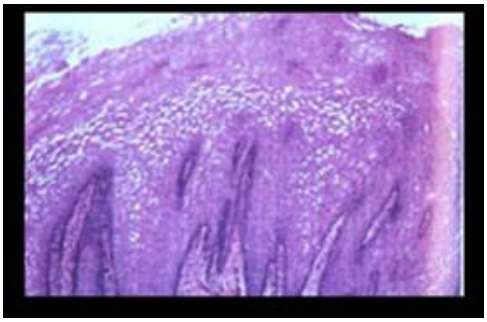
- AD & sporadic
- Face, trunk, ears & scalp: heavily k papules (coalesce & infected)
- Orally: Small whitish papules on K mucosa
- **Hist**:
  - Hyperk
  - Suprabasal clefts
  - Corps ronds & grains



Leukoedema:

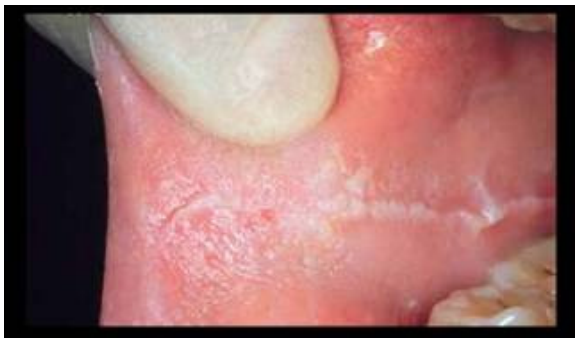


- Variation of normal
- 90% of blacks
- Site: BM bilaterally (⇓LB of tongue)
- **Clin**:
  - ➢ Asymptomatic
  - ➢ Diffuse, translucent, grayish-white, filmy appearance
  - ➢ Stretching



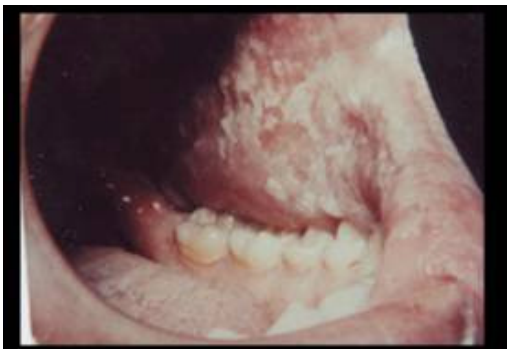
- **Hist**:
  - ➢ Mild parak & acanthosis
  - ➢ Intracytoplasmic fluid & glycogen
  - ➢ Normal LP

Traumatic Keratosis:



A) Mechanical:

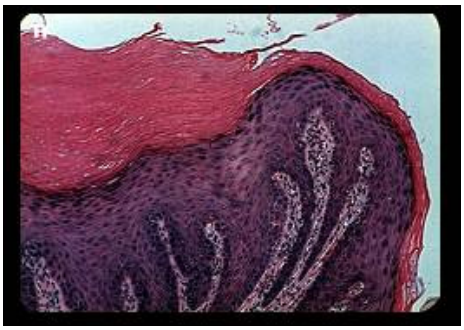
- Frictional Keratosis
- Prolonged mild abrasion
- Sharp tooth, restoration, biting, denture
- **Clin**:
  - ➢ Dense white patch w rough surface
  - ➢ Cheek biting



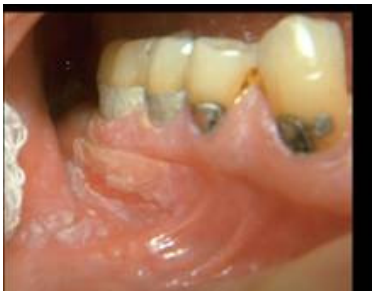
- **Dx**:
  - ➢ Cause
  - ➢ Size & shape
  - ➢ Resolve when cause removed

- **Hist**:

  - Hyperplasia & Hyperk
  - × Dysplasia
  - Scattered CICI in LP



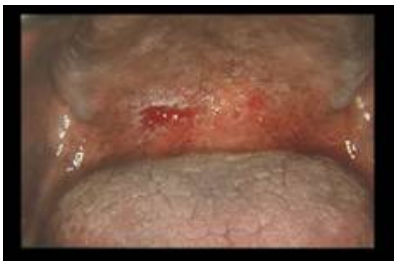
B) Chemical



- Aspirin Burn
- Tobacco: either form (Hyperk & hyperplasia)

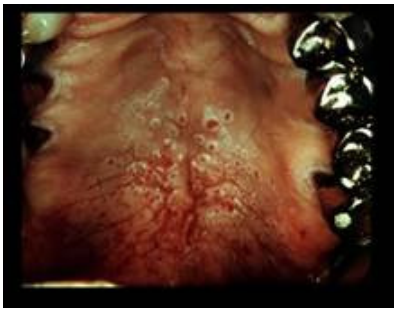
C) Thermal:

- Smoking ⇒ white plaques on ant BM, tongue & palate
- Cigarette: lip
- Pipe: tongue/palate

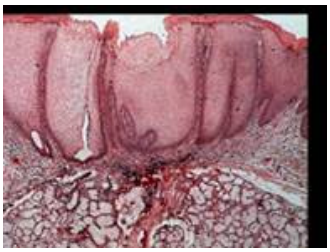


- **<u>Nicotinic Stomatitis:</u>**

  - Long-term pipe smokers
  - **Clin**:
    - Palate
    - White w multiple, small, round papules w red centers



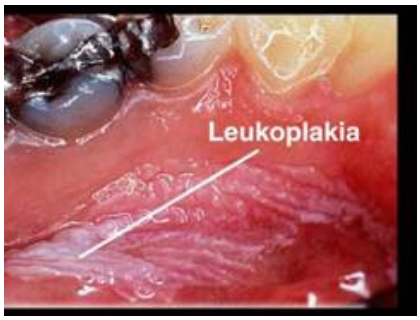
  - **Hist:**
    - Surface epith: Hyperk & hyperplasia
    - Ducts: dilated w sq metaplasia & periductal CICI



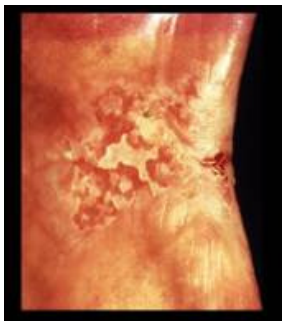
◙ Idiopathic white lesions:

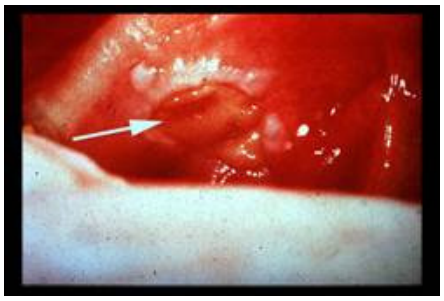
❖ Leukoplakia:

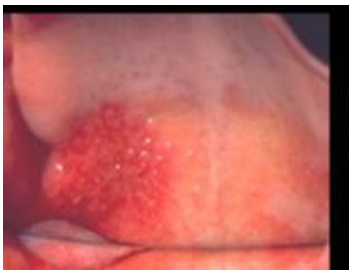
- **Definition**: a predominantly white patch that cannot be characterized as any other definable lesion.
- **Epidemiology**:< 4%, M>F, older, site
- **Clinically**:
  - ➢ Size
  - ➢ Colour



  - ➢ **Homogenous**: plaque-like ± surface variations
  - ➢ **Non-homogenous**: speckled, ulcerated, nodular, warty
  - ➢ **Erythroplakia**: A bright-red patch on the OM which cannot be characterized clinically or pathologically as being due to any other condition. Homogenous or speckled





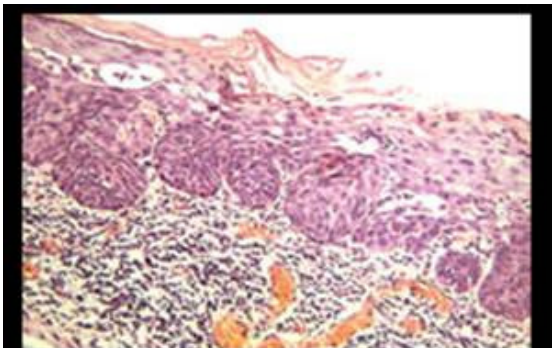


- **Aetiology:** Unknown, incriminated factors
  1. **Tobacco**
  2. **Alcohol**
  3. **Candida**
  4. **Viruses: HPV 16**

5. **Epithelial atrophy:**

   - Iron ⇩ (Sideropenic dysphagia, Patterson-Kelly, Plummer-Vinson Syndrome)
   - Oral submucous fibrosis
   - Tertiary Syphilis
   - Vit ⇩

- **Hist:** no specific histological features
  - Hyperk or hyperparak or both
  - Hyperplasia or atrophy
  - ⇧ Melanin pigment in basal epithelium ± melanin incontinence
  - CICI in LP
  - ± **Dysplasia**:
    - Nuclear & cellular pleomorphism
    - Nuclear hyperchromatism
    - Disturbed polarity of basal cells
    - Drop-shaped rete pegs
    - Deep cell keratinization
    - ⇧ N/C ratio
    - ⇧ & abnormal mitosis
    - Basal cell hyperplasia
    - Disturbed maturation
    - Loss of intercellular adherence



  - **Dysplasia**: mild, moderate, severe
  - **Homogenous leukoplakia**: 10%
  - **Non- homogenous leukoplakia**: 50%
  - **Erythroplakia**: 50% Ca or Ca-in-situ, majority of the rest: severe dysplasia

◆ **Prognosis**:

➲ Unpredictable (0.3-18%) over prolonged periods

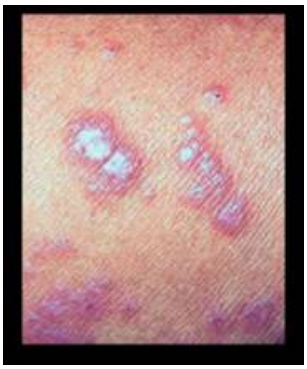
➲ Risk factors:

- ➢ Non-smokers
- ➢ Advanced age
- ➢ Non-homogenous
- ➢ Duration
- ➢ Dysplasia
- ➢ Family history
- ➢ F
- ➢ Sublingual area
- ➢ Enlargement or Δ in character

◙ Dermatological:

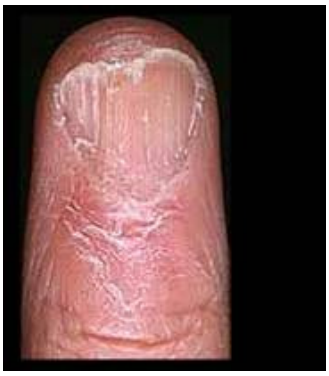
❖ **Lichen Planus**:

- CID of skin & mms affecting ≈ 1%
- 30-60 years of age, 60% F
- 40% skin & oral; 35% skin; 25% oral
- **Clin**:



➢ **Skin**:

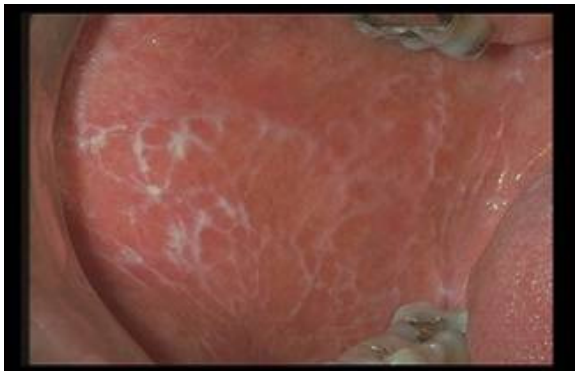
- ◆ Clusters of raised purplish papules pruritic papules 2-3 m
- ◆ Wickham's Striae
- ◆ Koebner phenomenon
- ◆ Location
- ◆ Nails
- ◆ Duration



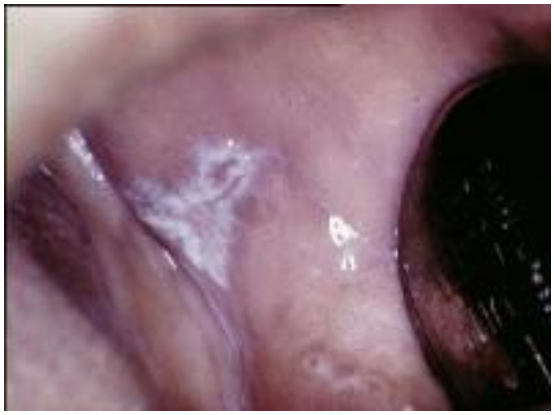
➢ **Oral lesions**:

- ◆ Most frequent site
- ◆ Other sites
- ◆ Least frequent

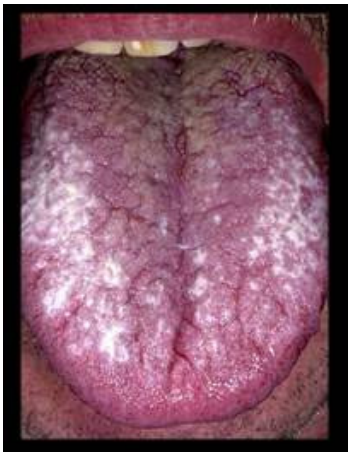
- Distribution
- **Clinically**:
  - **Reticular**:
    - Lacework, Striae of Wickham
    - Asymptomatic
    - Site



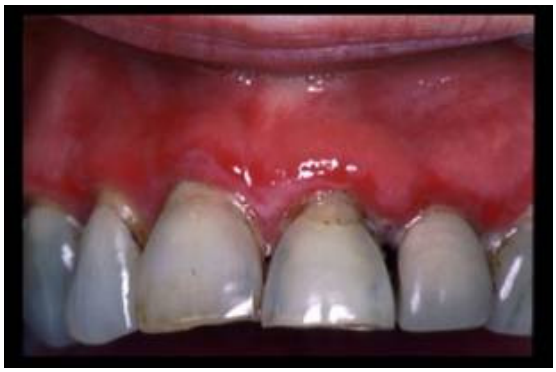
  - **Plaque-like**:
    - ≈ Leukoplakia
    - Asymptomatic
    - Site



  - **Papular**:
    - Small white papules that may coalesce, asymptomatic

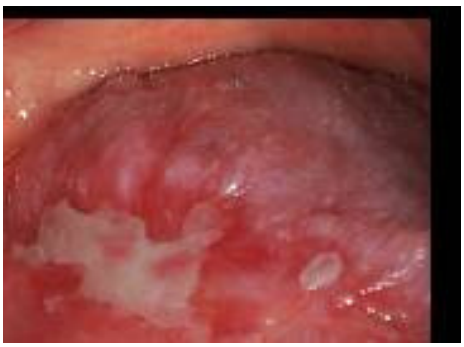


  - **Atrophic**:
    - ≈ Erythroplakia often with striae
    - Gingiva, desquamative gingivitis, symptomatic



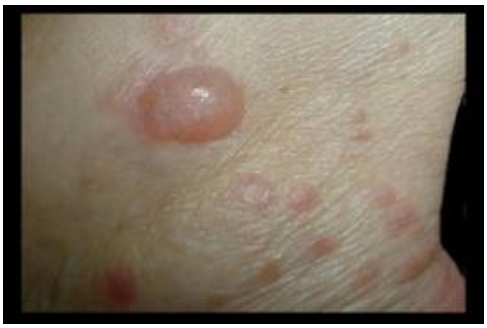
❖ **Erosive**:

- Shallow irregular areas of epithelial loss
- Smooth, raised yellowish membrane
- Can be very persistent
- Striae
- Symptomatic
- Hyperpigmentation

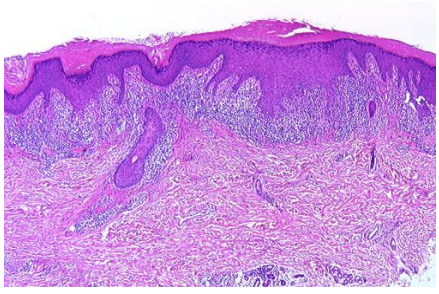


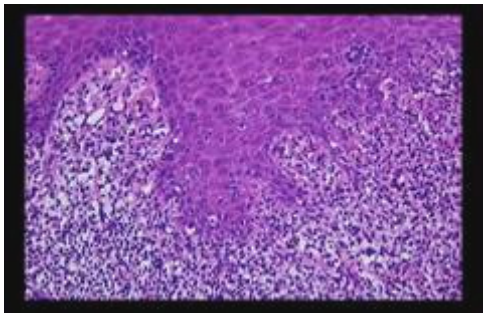
❖ **Bullous**:

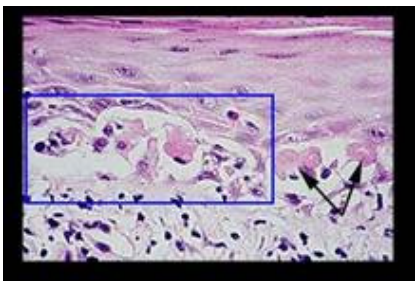
- Up to 2 cm
- Brief
- Posterior BM



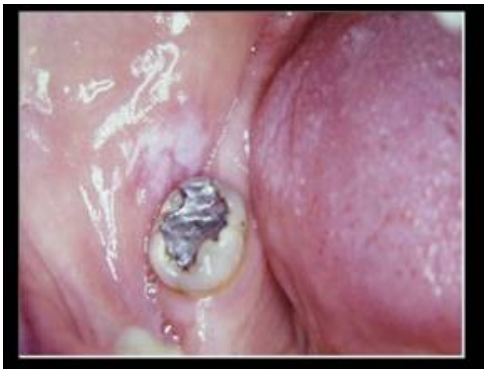
- **Hist**:
  - Focal Acanthosis w hyperparak/orthokeratosis
  - Sawtooth rete pegs
  - A dense, w-d band of T-lymph in superficial LP
  - Involvement of the basal and parabasal cell layers by inflammation
  - Liquefactive degeneration
  - Civatte bodies







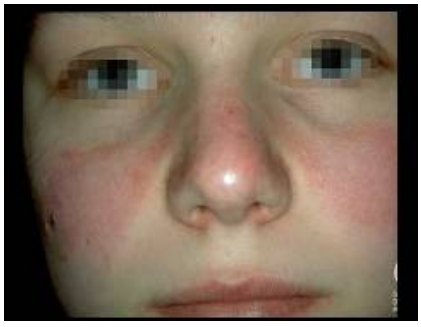
- **Prognosis:**
  - 0.5-2.5 % over 5-year period, erosive
- **Aetiology**: unknown
  - Genetic predisposition
  - Infective agents
  - Systemic disease: DM, Hypertension, U colitis, liver disease & GVHD
  - **Lichenoid reaction**: Drugs (antimalarial, gold, methyldopa, NSAI) & amalgam
  - Tobacco
  - Vitamin ↓
  - Psychiatric disorders
  - Immunopathogenesis



- **Pathogenesis:**
  - Langerhan's cells
  - ? Ag similar to antigens on kerationocytes of pts w certain MHC Ags
  - Processed by Langerhan's cells and presented activate production of CD8

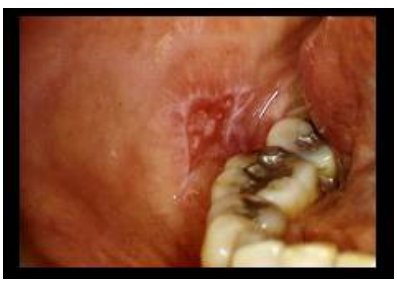
❖ **Lupus Erythromatosus:**

- A C.T disease with two main forms:



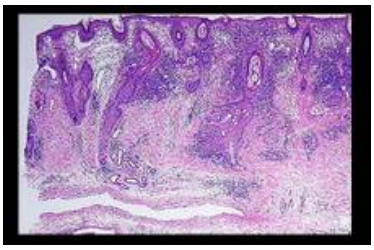
1. Chronic discoid LE:

- Face, scalp & ears
- Scaly red patches ± butterfly pattern
- Oral lesions in ≈ 50%
  - ➢ Cheeks
  - ➢ Vermillion border
  - ➢ Discoid area of erythema



w white keratotic border ± radiating striae

- **Hist**:



  - Ortho/parak epith
  - Hyperplasia/atrophy
  - Keratin plugging
  - Subepith & deep perivascular lymphocytes
  - ± Liquefactive degeneration
  - DIF: granular linear deposits of IGg, C3 & fibrinogen in BM (Lupus band)

2. Systemic LE:

- Most common
- Kidney
- Arthritis, heart & lung involvement, anemia, vasculitis, rash
- Fatigue, malaise, fever, psychosis, lymphadenopathy
- Oral lesions in ≈ 20%, more severe erythematous patches/BM
- **Aetiology**: genetic, autoimmune