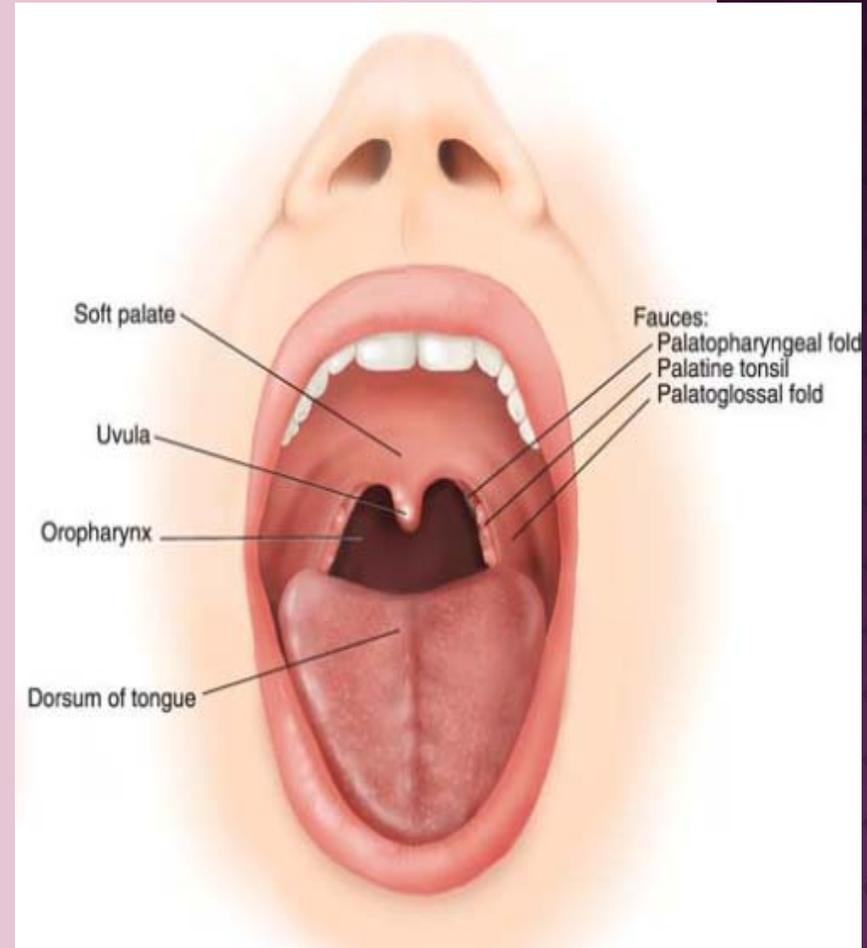


ORAL CAVITY & PALATE

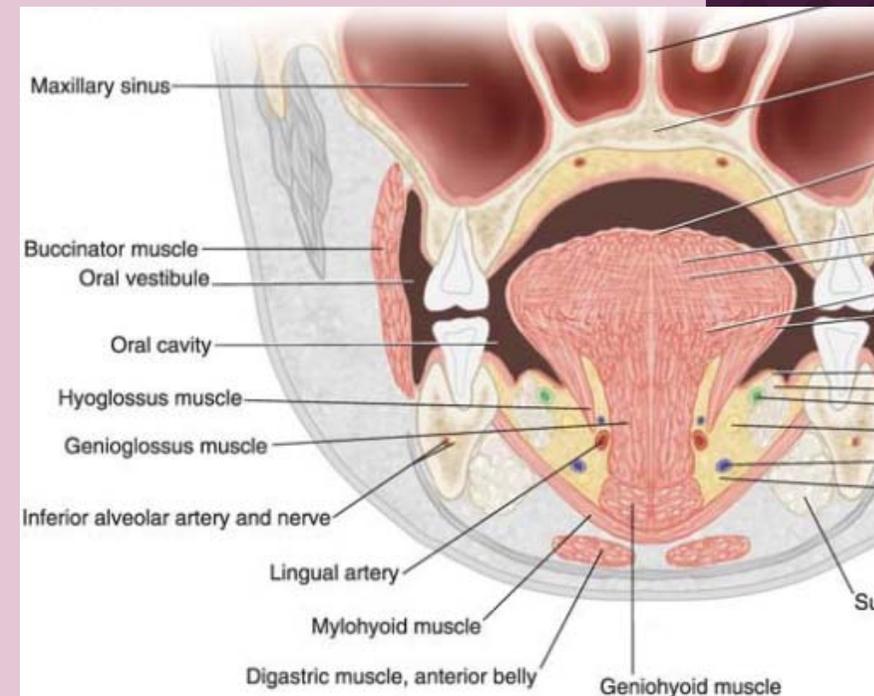
ORAL CAVITY (MOUTH)

- Extends from the **lips** to the **oropharyngeal isthmus**
- The **oropharyngeal isthmus**:
 - Is the junction of mouth and pharynx.
 - Is bounded:
 - **Above** by the **soft palate** and the **palatoglossal folds**
 - **Below** by the **dorsum of the tongue**
- Subdivided into **Vestibule** & **Oral cavity proper**



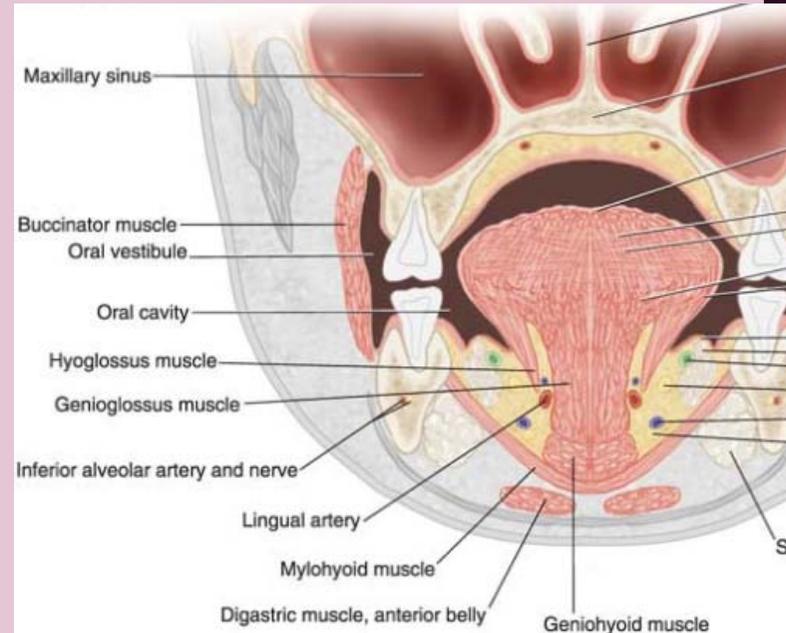
VESTIBULE

- ◉ Slitlike space between the cheeks and the gums
- ◉ Communicates with the exterior through the oral fissure
- ◉ When the jaws are closed, communicates with the oral cavity proper behind the 3rd molar tooth on each side
- ◉ Superiorly and inferiorly limited by the reflection of mucous membrane from lips and cheek onto the gums



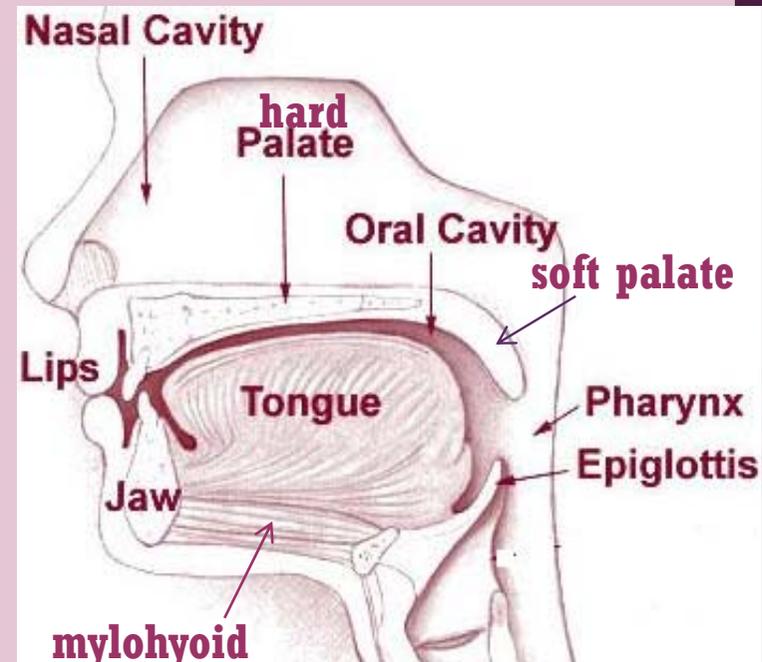
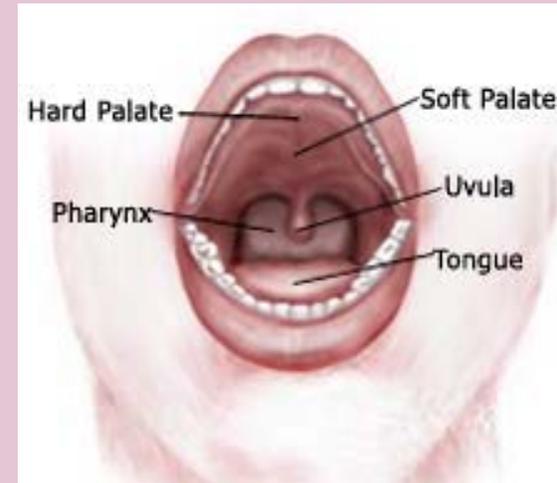
VESTIBULE CONT'D

- The **lateral wall of the vestibule** is formed by the cheek
 - The cheek is composed of **Buccinator** muscle, covered **laterally** by the skin & **medially** by the mucous membrane
- A small **papilla** on the mucosa opposite the **upper 2nd molar tooth** marks the opening of the **duct of the parotid gland**



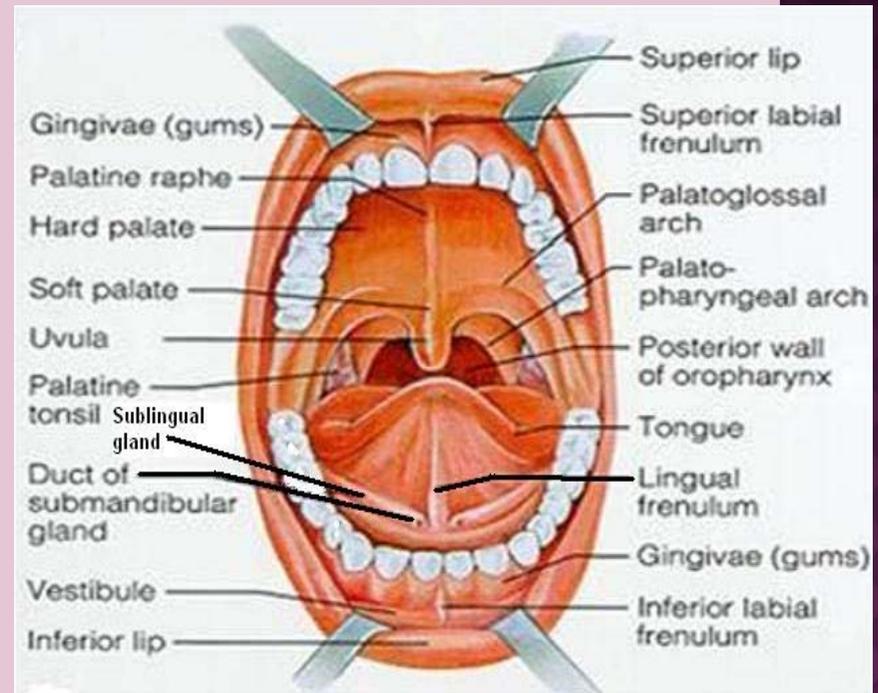
ORAL CAVITY PROPER

- It is the cavity within the **alveolar margins** of the maxillae and the mandible
- Its **Roof** is formed by the **hard palate anteriorly** and the **soft palate posteriorly**
- Its **Floor** is formed by the **mylohyoid muscle**. The anterior 2/3rd of the tongue lies on the floor.



FLOOR OF THE MOUTH

- Covered with mucous membrane
- In the midline, a mucosal fold, the **frenulum**, connects the tongue to the floor of the mouth
- On each side of frenulum a small **papilla** has the **opening of the duct of the submandibular gland**
- A rounded ridge extending backward & laterally from the papilla is produced by the **sublingual gland**



NERVE SUPPLY

o Sensory

- Roof: by greater palatine and nasopalatine nerves (branches of maxillary nerve)
- Floor: by lingual nerve (branch of mandibular nerve)
- Cheek: by buccal nerve (branch of mandibular nerve)

o Motor

- Muscle in the cheek (buccinator) and the lip (orbicularis oris) are supplied by the branches of the facial nerve

PREMALIGNANT ORAL LESIONS

- ◉ Leukoplakia
- ◉ Erythroplakia
- ◉ Oral submucous fibrosis
- ◉ Oral candidiasis
- ◉ Sideropenic dysphagia (Paterson-Kelly Syndrome)
- ◉ Oral lichen planus

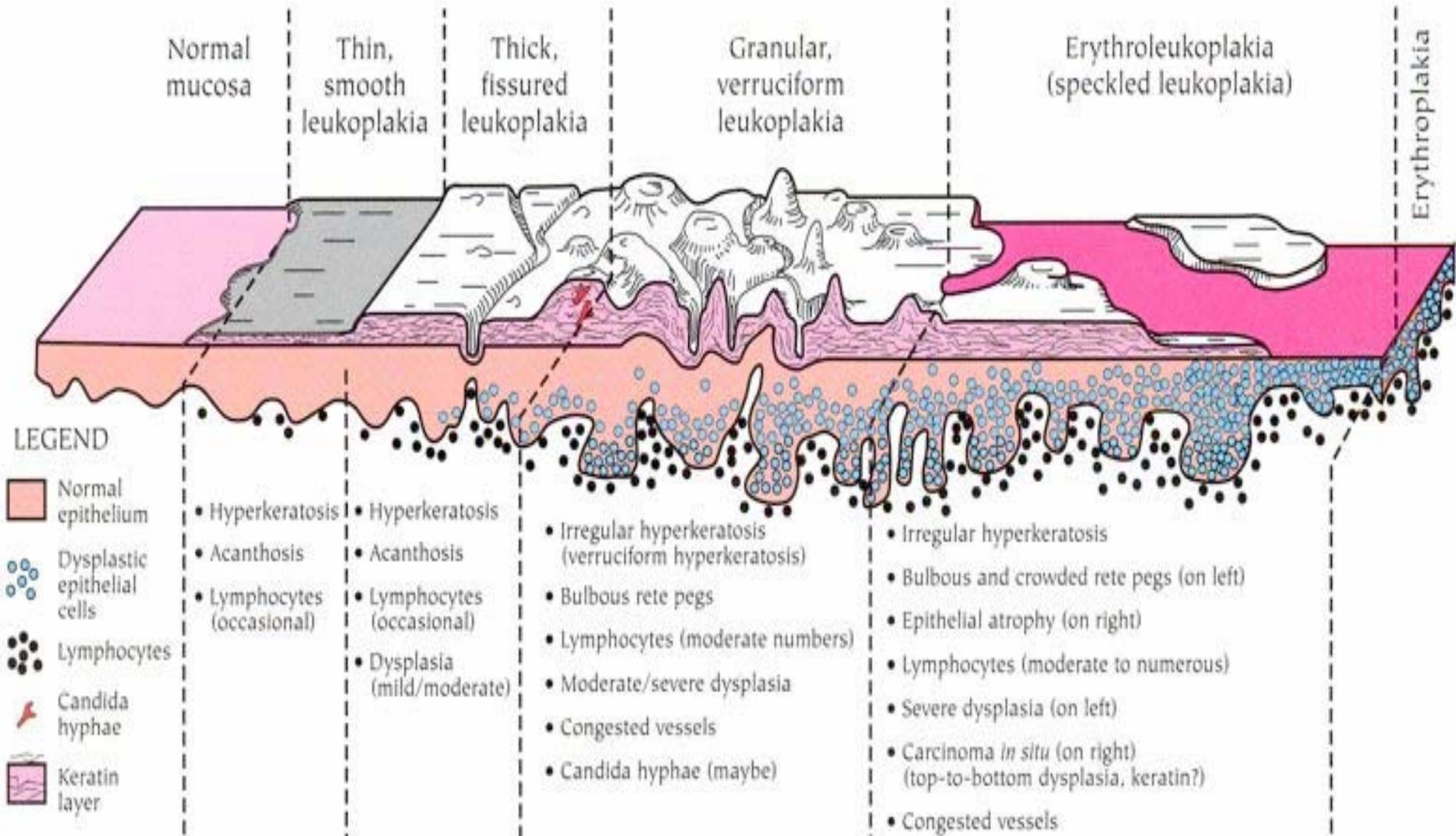
LEUKOPLAKIA

(LEUKO-WHITE; PLAKIA-PATCH)

- ◉ Oral leukoplakia is defined by the WHO as “a white patch or plaque that **cannot** be characterized clinically or pathologically as any other disease” .
- ◉ Thus a diagnosis by **exclusion**.
- ◉ The term is strictly a **CLINICAL** one and does not imply a specific histopathologic tissue alteration.
- ◉ The clinical color (white) results from a thickened surface keratin layer (which appears white when wet) or a thickened spinous layer, which masks the normal vascularity (redness) of the underlying connective tissue.

LEUKOPLAKIA

- ◉ Leukoplakia occurs most often in middle-aged and older men and arises most frequently on the buccal mucosa, alveolar mucosa, and lower lip.
- ◉ Overall, the malignant transformation potential of leukoplakia is 4 % (estimated lifetime risk).
- ◉ However, **specific clinical subtypes** are associated with much high potential malignant transformation rates (as high as 47 %).



ETIOLOGY:

1. Tobacco chewing or smoking
2. Alcohol
3. Local irritations
4. Vitamin deficiency : Vit A and Vit B
5. Endocrine disturbances
6. Candidiasis
7. Syphilis

CLINICAL FEATURES

- More common in men than women
- Common above 40 years of age

Common Site: It can be found anywhere in oral cavity

1. Buccal mucosa and Alveolar mucosa
2. Tongue
3. Lower lip
4. Hard and soft palate
5. Floor of the mouth
6. Gingiva



MANAGEMENT

- Proper history
- Prevention of the cause
- Surgical excision of the small lesion
- In females: supplementation of Oestrogen
- Topical chemotherapy and radiation

ERYTHROPLAKIA

- These are red patches found in the oral cavity
- Erythroplakia not very common than Leukoplakia
- There is no sex difference
- Occurs in 6th and 7th decades of life

Etiology:

1. Smoking: Pipe smokers
2. Trauma
3. Dental irritation

Common Site:

- Buccal muosa, soft palate, Floor of the mouth, Retromolar area, Tongue, Mandibular mucosa and sulcus

TYPES

1. Homogenous form:

- Which appears as a **bright red**, **soft**, **velvety** lesions and quite extensive in size
- **Site: Commonly** found in buccal mucosa and soft palate

2. Speckled erythroplakia:

- These are **soft**, **red lesions**, **slightly elevated** with an **irregular outline**
- Surface being **granular**—These are often referred to as **speckled leukoplakia/erythroplakia**

Common Site: Anywhere in the oral cavity

3. Erythroplakia interspersed with patches of Leukoplakia:

- ◉ In this erythematous patches are not as bright as the homogenous form

Common Site: Tongue and floor of the mouth

ORAL SUBMUCOUS FIBROSIS

- ◉ This is due to fibroelastic change of oral mucosa with epithelial atrophy leading to stiffness of oral mucosa and causing trismus and inability to eat.

Etiology :

- ◉ Chewing bettel nut, Panmasala
- ◉ Vitamin B deficiency
- ◉ Protein deficiency

CLINICAL FEATURES:

- Most common between 20-40 years of age, but can occur in any decades of life
- The disease is characterized by **burning sensation** of mouth particularly when eating spicy foods.
- This is accompanied by the formation of the **vesicles**, **ulceration** or **recurrent stomatitis** with excessive salivation or **xerostomia**
- Ultimately the patient develops **stiffing** of certain area of the oral mucosa with difficult in opening the mouth and swallowing.
- The **fibroelastic band** eventually appear on mucosa usually involving the buccal mucosa, soft palate, lips and tongue
- ◉ Treated with Local Hydrocortisone injection and Systemic corticosteroids

- ◉ Investigations for all premalignant lesions: Biopsy
- ◉ Treatment: Radiation therapy

ORAL CANDIDIASIS

1. Acute candidiasis:

- Acute pseudo membranous oral candidiasis
- Acute atrophic oral candidiasis

2. Chronic candidiasis

- Chronic hyperplastic oral candidiasis—Resembles leukoplakia
- Chronic atrophic oral candidiasis—found in dentures sore mouth
- Chronic mucocutaneous oral candidiasis

CHRONIC MUCOCUTANEOUS CANDIDIASIS:

- ◉ Involment of skin,scalp,nail and mucous membrane

Types:

1.Chronic familial muco-cutaneous candidiasis

- ◉ It is an inheritant disorders occurs before the age of 5 years
- ◉ There is equal sex distribution
- ◉ Oral lesions occurs in children

2. Chronic localised mucocutaneous candidiasis:

- This also occurs earlier in life but no genetic transmission
- There is widespread involvement of face and scalp, mouth is the primary site

3. Candidiasis endocrinopathy syndrome:

- It is genetically transmitted candidiasis and infection of the skin scalp, nails and mucous membrane classically in the oral cavity
- Seen in Hypothyroidism, Hypoparathyroidism, Diabetes mellitus

4. chronic diffuse mucocutaneous candidiasis:

- ◉ It has late onset over 55 years of age
- ◉ It is the least common form
- ◉ There is no family history and usually no abnormality

Treatment:

- ◉ Fluconazole tablets
- ◉ Amphotericin B
- ◉ Nystatin Suspension

PLUMMER-VINSON SYNDROME (PATERSON-KELLY SYNDROME)

- ◉ This is an uncommon condition characterized by an **iron-deficiency anemia** with an associated **glossitis** and **dysphagia**.
- ◉ It is of significance because of its association with a high frequency of oral and esophageal squamous cell carcinoma.
- ◉ Sideropenic dysphagia

PLUMMER-VINSON SYNDROME: CLINICAL FEATURES

- ◉ This syndrome is most common in females between the ages of 30 and 50 years.
- ◉ It is more common in patients of Scandinavian and northern European background.
- ◉ Patients complain of a burning tongue/mouth.
- ◉ Smooth red tongue are often presenting features.
- ◉ koilonychia and brittle nail.
- ◉ The symptoms of anemia such as fatigue, shortness of breath and weakness often lead the patient to seek medical care.

PLUMMER-VINSON SYNDROME: LABORATORY & MICROSCOPIC FEATURES

- ◉ Hematologic studies show a hypochromic, microcytic anemia consistent with iron-deficiency anemia.
- ◉ Biopsy of the oral mucosa reveals epithelial atrophy with submucosal inflammation.
- ◉ In advanced case one may see epithelial atypia, dysplasia, carcinoma *in situ* or frank squamous cell carcinoma.

PLUMMER-VINSON SYNDROME: TREATMENT AND PROGNOSIS

- ◉ Treatment centers on correcting the iron-deficiency anemia and if this is successful, the glossodynia and esophageal symptoms improve.
- ◉ Patients should be evaluated periodically for oral, pharyngeal and esophageal cancer.
- ◉ The frequency of malignancy in these patients has ranged from 5 to 50 %.

ORAL LICHEN PLANUS

- A chronic inflammatory disease that causes **bilateral papules**, **striations** or **plaques**
- May cause **erythema**, **erosions** and **blisters**
- Found on buccal mucosa, tongue and gingiva
- Female:Male ratio: 1.4:1
- Predominantly seen in adults over 40 years.

PATHOGENESIS OF OLP

- ◉ Oral Lichen planus is a purely T cell mediated inflammatory response.
- ◉ keratinocyte apoptosis in OLP - cause unknown
- ◉ No microorganism

CLINICAL PRESENTATION

- Three common types

- Reticular
- Erosive
- Plaque

Variants of Plaque and Erosive types

Atrophic

Bullous

- Histopathology

Picture 1: Plaque-like OLP



Picture 2: Reticular OLP



Picture 3: Erosive OLP



Picture 4: Reticular OLP



TREATMENT OF OLP

- No treatment for OLP is curative
- Goal:
 - Reduce painful symptoms
 - Resolution of oral mucosal lesions
 - Reduce risk of oral squamous cell carcinoma
 - Improve oral hygiene
- Eliminate exacerbating factors
 - Repair defective restorations or prosthesis
 - Remove offending material causing allergy
- Diet
 - Eliminate smoking and alcohol consumption
 - Eat fresh fruit and vegetables (but avoid tomatoes and nuts)
- Reduce Stress

TREATMENT OF OLP

- Medication

- Topical corticosteroids
- Systemic Steroid Therapy

STOMATITIS

- ◉ Inflammation of lining of mouth
- ◉ Caused : by injury,
 - mechanically
 - chemically
 - thermal
 - radiotherapy
 - idiopathic
 - malnutrition

TRAUMATIC STOMATITIS

- ◉ Caused by:
 - hard tooth brush,
 - ill-fitting dentures
 - jagged teeth
 - simple cuts & burns
- ◉ Pain
- ◉ Movement restricted
- ◉ Increase salivation
- ◉ Remove causative factor
- ◉ mouth wash with NS

APHTHOUS STOMATITIS

- ◉ Generalized debilitating disease
- ◉ Solitary or multiple aphthous ulcer
- ◉ Vesicle with hyperaemic base
Break to form small white circular ulcer
Painfull
- ◉ T/t oral hygiene rinse with Listerin or NS solution
- ◉ Send C/S -antibiotic if culture positive

MONILIAL STOMATITIS (THRUSH)

- ◉ Infant first few week of life
- ◉ People debilitating disease
- ◉ Prolong antibiotic therapy
- ◉ Diabetics
- ◉ Fungus **candida albicans**
- ◉ Spots small red patches turn white (desquamated epithelium)
- ◉ Painful excessive salivation
- ◉ T/t oral hygiene glycerine nystatin

ANGULAR STOMATITIS

- ◉ Cracks or superficial ulcer at corner of mouth
- ◉ Children rub & lick corner of mouth
- ◉ Over closure of mouth
- ◉ Dribbling saliva corner of mouth
- ◉ Inflammed red brown fissures at corner of mouth
- ◉ Vitamin B,C & iron supplement

