

Oral Cavity Diseases

RANULA

(*Rana = Frog*, Ranula looks like belly of frog, hence the name—Latin).

_ Ranula is an *extravasation cyst arising from sublingual gland or mucous glands of Nuhn or glands of Blandin* in the floor of the mouth. Occasionally it can occur in submandibular salivary gland also.

_ initially there is blockage of the duct (of sublingual gland) causing retention cyst, which causes rupture of the acini due to increased pressure leading into extravasation cyst.

plunging ranula: It is intraoral ranula with cervical extension, It often extends into the submandibular region through the deeper part of the posterior margin of mylohyoid muscle as soft, fluctuant, nontender, dumbbell shaped swelling in the submandibular region. It is bidigitally palpable. US and/or MRI is diagnostic. It is treated by surgical excision through neck approach along with excision of submandibular and sublingual salivary glands. Small plunging ranula is often excised per orally along with excision of sublingual salivary gland.

Clinical features of ranula

- ❖ Bluish swelling in the floor of the mouth
- ❖ Laterally placed
- ❖ Nontender
- ❖ Fluctuant and cross fluctuant (plunging ranula)
- ❖ Brilliantly transilluminant

Complications:

- ✓ It may damage the Wharton's duct.
- ✓ It may rupture.
- ✓ it may get infected.
- ✓ It may interfere with speech and swallowing occasionally.

Differential Diagnosis

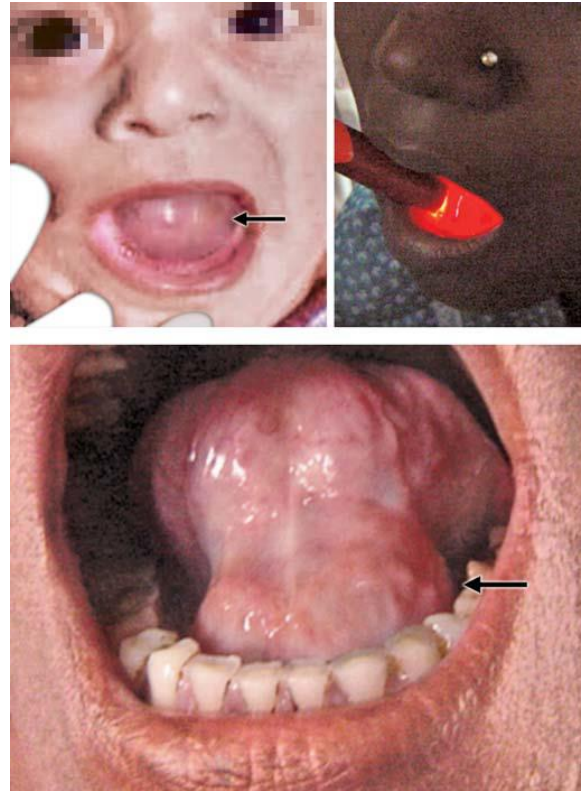
- ✓ Lymph cyst.
- ✓ Sublingual dermoid.

Treatment

_ *Marsupialisation* can be done initially and later once the wall of the ranula is thickened it is excised (*Marsupial* means pouch where baby is kept, carried and sucked on the mother's belly, like in Kangaroo).

_ If ranula is small it can be excised without marsupialisation.

_ Excision of sublingual salivary gland is often needed. In plunging ranula submandibular salivary gland needs to be excised.



SUBLINGUAL DERMoids

They are *sequestration dermoids* lined by squamous epithelium containing keratin. It is smooth, soft, fluctuant, nontransilluminant bidigitally palpable swelling.

Types

1. **Median sublingual dermoid:** It is derived from epithelial cell rests at the level of fusion of *two mandibular arches*. It may be supramylohyoid or inframylohyoid. It is located between two genial muscles, in relation to mylohyoid muscle. It is a midline swelling which is smooth, soft, cystic, nontender, nontransilluminant.

Treatment is excision through oral approach.

Complication is abscess formation.

2. **Lateral sublingual dermoid:** It develops in relation to submandibular duct, lingual nerve and stylohyoid ligament. It is derived from *first branchial arch*. It forms a swelling in the lateral aspect of the floor of the mouth.

Treatment: Small one is removed per orally. Larger one, through submandibular incision.



A and B: Sublingual dermoid.

STOMATITIS

– It is inflammation of oral mucosa by trauma, radiotherapy, chemicals, nutritional deficiency or infection.

1. Traumatic stomatitis may be due to dentures, teeth bite, and brushing of teeth harshly which presents as painful thin covering of furr with increased salivation. Proper mouth wash will cure the condition.

2. Aphthous stomatitis is seen in malnutrition, debility, steroid usage. Present as multiple hyperaemic painful vesicles later forming deep round painful ulcers. It is treated with mouth wash and if needed by antibiotics. Recurrent aphthous stomatitis with ulcers is often familial, more common in women, common in lip, cheek, tongue which are very painful with more salivation. It heals spontaneously. But during active period, it interferes with speech, swallowing distressfully. It is treated by many drugs like levamisole, antibiotics, vitamin B and C, local applications of anaesthetics (xylocaine)/choline salicylate/benzalkonium chloride.

3. Candida stomatitis (Monilial thrush) is due to fungal infection, *Candida albicans* which is seen in diabetics, individuals on steroid therapy, long-term antibiotics, patients who are bedridden, on prolonged ICU care, in infants, and debilitated patients. Initially multiple red spots which are painful appear in the tongue and buccal area which later turn into curdy white patches. Often it

extends into pharynx and esophagus causing dysphagia. It is treated with antifungal drugs like clotrimazole or fluconazole.

4. Vincent's ulcerative stomatitis (Vincent's angina/trench mouth) is due to infection by Gram –ve anaerobic bacteria *Borrelia vincentii* and *Fusiformis fusiformis*. It is common in adolescents and young adults below the age of 35 years. Presents with fever, excessive salivation, red swollen gums with painful ulcers covered with yellow slough (pseudomembrane) which can be removed like membrane – ulcerative gingivitis. From the gums it spreads to cheek, palate, and pharynx. Tongue involvement is uncommon. Tender neck lymph nodes are palpable. Musty foetor oris is typical. Edentulous patients will not develop this infection. Infection in tonsillar crypts is called as Vincent's angina. It is confirmed by swab culture. It is treated by antibiotics (penicillin group); peeling of membrane, mouth wash, supportive measures, vitamin B and C.

5. Nutritional stomatitis is due to—(1) vitamin B deficiency like nicotinic acid (pellagra), riboflavin deficiency. It is common in tongue presenting as red area with atrophy of papillae. (2) Vitamin C deficiency is commonly seen as bleeding gums and loosening of teeth. (3) Iron deficiency anaemia causes superficial glossitis mainly in females.

6. Angular stomatitis is superficial lengthy red brown fissures/ ulcers in and around the angle of the mouth with cracks. *Candida* and streptococci infections are common. It is often called as cheilosis/perleche. It is treated with vitamin B, C, iron and protein supplements with adequate oral hygiene. Perleche is seen in children who suck their finger.

SYPHILITIC LESIONS OF ORAL CAVITY

Chancre in lip: It is highly contagious primary chancre, presents as painless macule later forming painful superficial ulcer. Ulcer eventually heals with a scar. It can be on both upper and lower lip—*primary syphilis*. *Mucous patches* which are greyish white contagious patches seen on lip, cheek and fauces. Mucous patches fuse together to form *linear snail track ulcers* in fauces, pillars—*secondary syphilis*. *Hutchinson's contagious condyloma* in midline tongue can occur. *Gummatous painless ulcer* is seen in anterior 2/3rd of tongue, palate and

nasal septum (causes perforation and collapse of nasal bridge). *Syphilitic chronic glossitis* is seen in *tertiary syphilis* which is a precancerous condition.

ORAL SUBMUCOSAL FIBROSIS

- _ It is a progressive fibrosis deep to the mucosa of the oral cavity which causes *trismus* and *ankyloglossia*.
- _ The mucosa of cheek, gingivae, palate and tongue shows *a mottled/marbled pallor*.
- _ It is common among Asians and Indians.
- _ *Aetiology*: Hypersensitivity to chilli, betelnut, tobacco and vitamin deficiencies probably alter the collagen metabolism leading to juxtaepithelial fibrosis, epithelial atrophy and dysplasia.
- _ 4.5-7.6% of oral submucosal fibrosis turns into malignancy (Paymaster—1956 study shows 30-33% incidence—very high).
- _ *Treatment*: Precipitating factors has to be avoided.
- _ Surgical excision when required, followed by skin grafting, has to be done.



Submucosal fibrosis of right cheek. Note the stiff fibrotic bands and scarring.

PREMALIGNANT CONDITIONS OF ORAL CAVITY

High risks—lesions with definite risk of malignant change

_ Leukoplakia.

_ Erythroplakia.

_ Chronic hyperplastic candidiasis: It is common in commissures of the mouth and tongue. Dense plaque of leukoplakia is common with curdy white patches due to *Candida albicans* infection. It often may not respond to drugs, surgery or laser. Immunodeficiency is often associated with this. It is treated by topical or systemic antifungal drugs/surgical excision or laser therapy.

Medium risks—premalignant but not associated with higher incidence of carcinoma:

_ Oral submucosal fibrosis.

_ Syphilitic glossitis.

_ *Sideropenic dysphagia* (*Sideropenia* is iron deficiency without anaemia); or Plummer-Vinson syndrome. Sideropenia is common in Scandinavian females. It causes atrophy of epithelium and becomes potentially malignant. Proper iron therapy controls the disease and reduces the risk.

DON'T FORGET

"We are weaving the future on the loom of today"