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## CASE STUDY

### RANULA – A CASE REPORT

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#### ABSTRACT

Ranula is a non-cancerous cyst like space in mouth that contains mucus; usually caused by obstruction of a salivary gland. The term ranula is derived from Latin word “Rana” meaning frog, as the swelling may resemble a frog’s translucent under belly. It occurs usually in the floor of the mouth.

##### Clinical types of ranula-

- The simple ranula-it has an epithelial lining
- The plunging ranula-it is an extravasation pseudocyst.

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## INTRODUCTION

RANULA was first described by Hippocrates. Formation of the ranula is due to rupture of the excretory duct which is followed by extravasation and salivary accumulation into surrounding tissues leading to formation of a pseudocyst that is deficient of epithelial lining. It appears as soft, dome-shaped, fluctuant swelling with varying sizes and sometimes may have a bluish hue.

### Etiology

- Trauma and ductal obstruction
- Sialolith-represents precipitation of calcium salts around the central nidus of cellular debris.

### Appearance and incidence

- Often appears as a painless and clear or bluish color growth or mass
- Sizes may vary; fluctuant, freely movable and non-tender.
- They are most common in the 2<sup>nd</sup>-3<sup>rd</sup> decade of life and more often in females.

- Usually, the lesion forms to one-side of the lingual frenum; however if the lesion extends deep into the soft tissue; it can cross the midline.

### Pathophysiology

The pathophysiology involved in extravasation is hypertension in the duct due to obstruction leading to acinar rupture in the salivary gland and then extravasation of mucus. The initial stage is a traumatic rupture of the excretory duct and 2<sup>nd</sup> stage is extravasation and subsequent accumulation of saliva within the tissue.

### Histopathology & aspiration cytology

- Shows non-keratinising stratified squamous epithelium with a fibrous capsule having central pooling of mucin along with mucinophages following H&E Staining.
- Aspiration cytology reveals mucin with muciphages and biochemical analysis will show increase in amylase and protein content. This is diagnostic of salivary gland involvement.

### Treatment

- A variety of surgical procedures have been tried in numerous cases ranging from incision and

## Ranula and its resemblance with frog belly



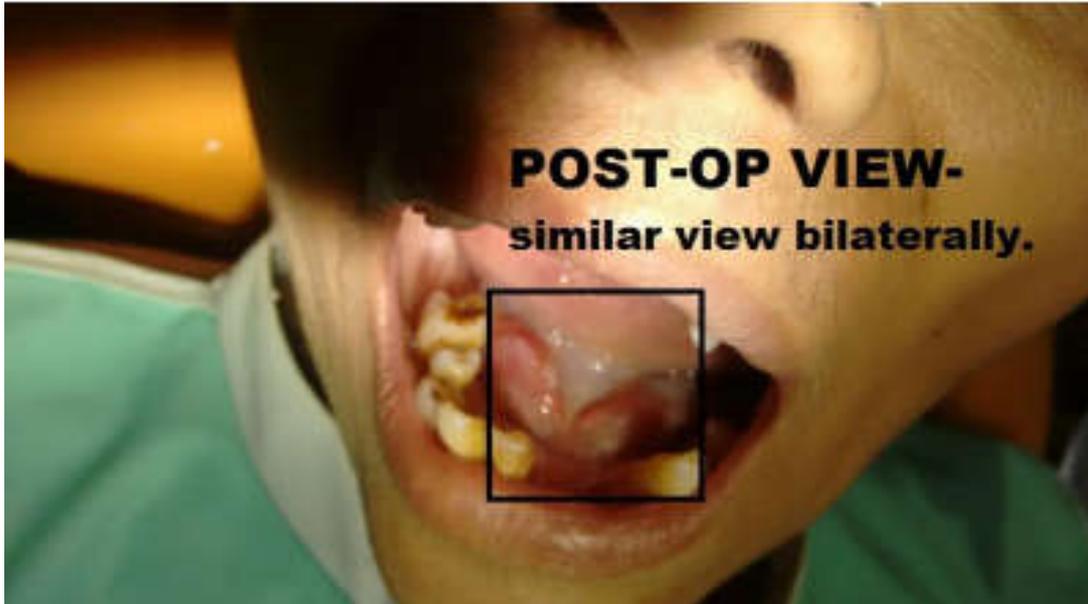
## Variable factors and it's incidence of ranula and it's types

Variable	Number of patients (n=112)
Gender (%)	
Male:female	37:75 (33:67)
Age (mean $\pm$ SD, years)	27 $\pm$ 17
Diagnosis (%)	
Simple ranula	94 (83.9)
Plunging ranula	18 (16.1)
Extent of surgery (%)	
Simple cyst excision	23 (20)
Excision of cyst with sublingual gland	89 (80)

## Pre-operative view of intraoral ranula in patient's mouth



### Post operative view



drainage, marsupialization, marsupialization with packing, excision of ranula, sclerotherapy with OK-432 {PICIBANIL} and excision of the salivary gland.

- The recurrence rate varies; according to the procedure performed.

### Case Report

A 48 years old female came to dental department, with the chief complaint of swelling in floor of the mouth since 2-3 months. History of subsiding of swelling along with frequent recurrence was given by the patient. On clinical examination, a diffuse swelling measuring about 1.5 cms in diameter in right submandibular triangle was evident. Swelling was non-tender, soft, fluctuant, movable with no localized temperature. While swallowing swelling was moving with no discoloration of overlying mucous membrane. Oral hygiene of patient was poor with Grade II Mobile lower incisors. On aspiration, a viscous clear fluid was aspirated with similar appearance like saliva.

### Conclusion

Complete excision of salivary gland is the most effective treatment of ranula, it's a complex procedure and involves risk of injury to nerves and other anatomic entities nearby. Hence marsupialization is suitable and effective treatment of intraoral ranula. Low-level Laser Therapy is most effective for a painless and better healed tissues.

**Surgical procedure:** Under local anaesthesia, an intra-oral incision was made in the floor of the mouth on the right side; deroofing of the cystic lesion was performed with packing the entire pseudocystic cavity with betadine soaked gauze with pressure dressing to avoid post-op swelling. Layered closure was done using 3.0 VICRYL SILK SUTURE, to prevent any collection in the dead

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