

## CONGENITAL RANULA, CASE SERIES AND REVIEW OF LITERATURE

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### ABSTRACT

**Introduction:** Congenital ranula is a type of retention cyst. It is rarely symptomatic and sometimes present with respiratory distress and swallowing difficulty. In most cases it either resolves on its own or removed by transoral surgery.

**Methodology:** We operated 3 cases of congenital ranula and their unique findings are reported.

**Conclusion:** Congenital ranula is rarity. As seen in our first case if neglected it can lead to bony dystrophy and dental attrition with tongue atrophy. The scarcity of literature leads a road for new researches

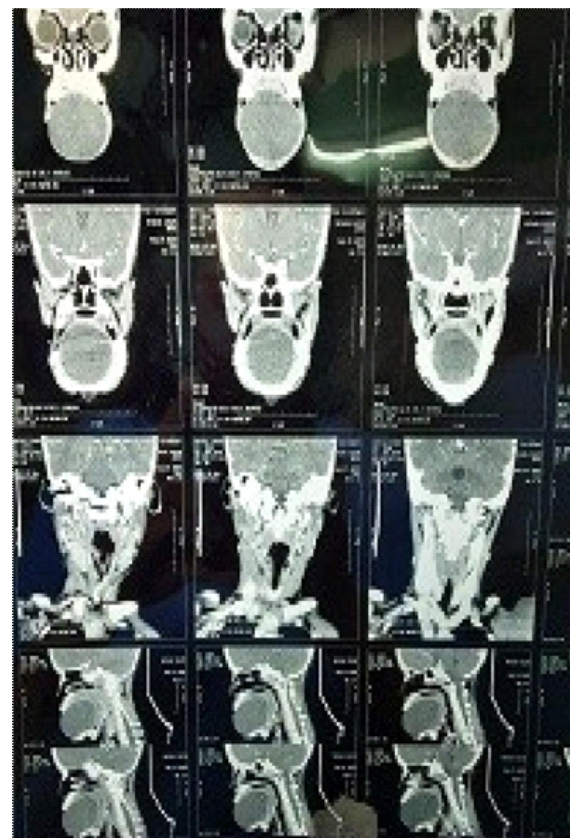
### INTRODUCTION

Ranula founds its origin from obstruction of main sublingual duct or acini or by extravasation of mucous into surrounding tissue. It can be divided into simple or plunging depending on their location. Diagnosis can be made through clinical examination ,CT scan and if needed FNAC. Various methods are available for the management of ranula like marsupilisation , sclerotherapy ,complete excision of sublingual salivary gland.

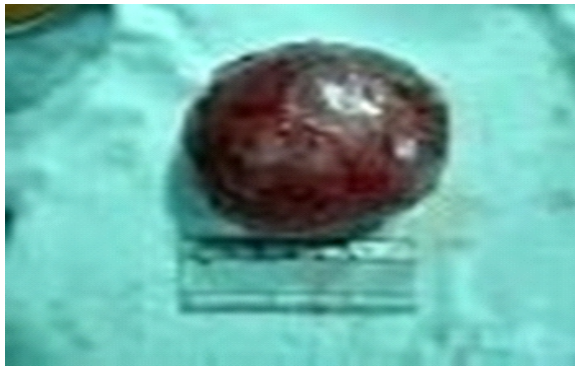
We describe a case series with a review of available literature with respect to congenital ranula.

### Case1

A 12 year male child came with complaints of swelling in mouth and sustained mouth opening since many years without any difficulty in



swallowing or breathing. Patient `s mother revealed that child was having intraoral swelling since birth which increased to this extent. On



examination of oral cavity there was large swelling 8\*7cms in floor of mouth, pushing the tongue, intraoral swelling has widened the arch of mandible in a way that mandible was much wider than upper alveolus and only last molars were in occlusion whereas rest of rest of teeth of upper and lower alveolus were much apart. Clinically differential diagnosis were congenital sublingual dermoid and congenital ranula. Patient underwent FNAC which confirmed it to be ranula and CECT Head and neck described it cystic swelling which was above the mylohyoid muscle. Patient underwent surgery by transoral approach and the mass was removed in toto . Histopathology correlate with FNAC

## Case 2

A case of 5 year old male child presenting with complaints of swelling over floor of mouth since birth and it gradually progressed in last 6 months period ,there was no history of trauma ,no associated complaints of difficulty in breathing and swallowing .On examination a swelling present over floor of mouth of size approximately 2\*2 cms ,cystic in consistency transilluminant in nature . CT neck was done which suggested the



diagnosis as Ranula. Intraoral excision along with removal of sublingual gland was done under GA. Histopathology confirmed the diagnosis and patient is doing well on follow up.

## Case 3

A case of 3 year old male child presenting with complaints of swelling over floor of mouth since birth and it gradually progressed ,there was no history of trauma ,no associated complaints of difficulty in breathing and swallowing .On examination a swelling present over floor of mouth of size approximately 1\*1 cms ,,cystic in consistency transilluminant in nature .CT neck was done suggesting the diagnosis as Ranula. Marsupialization under GA was done and patient is doing well on follow up

## DISCUSSION

All three cases are male.None presented with breathing or swallowing difficulty. Depending on the size of lesion surgical approach is different in all three. Our first case is one of rarest among all

reported case of congenital ranula. Patient presented at 12 year of age whereas all the previous reported cases are either antenatal or postnatally detected. Size reported in all the various reports as mentioned are within 4cms whereas the size in present case was 7.9\*7.2\*5.5 cms .Our first case was a neglected case of congenital ranula which lead to gross mandibular deformity.

Incidence of Congenital Ranula is 0.74% and most of the reported cases presented at time of birth or within 6 month postnatal period.

It is a type of retention cyst, described in literature as 'simple cyst lined by stratified squamous epithelium with the presence of mucous gland within the cyst wall'.

Various reports have been published to ascertain the cause of ranula formation .Redpath<sup>2</sup> et al reported congenital atresia of submandibular gland as the cause .Hoggins<sup>3</sup> et al and Pownell<sup>4</sup> et al found imperforate submandibular salivary ducts in their case reports Zhang<sup>5</sup> et al 2010 in their cadaveric study to investigate the relationship of clinical and anatomic study on duct of submandibular and sublingual gland reported that in 33.67% cases only minor sublingual gland ducts communicated with oral mucosa,40 % cases major salivary gland duct communicated with middle portion of sublingual gland duct and in 23.3 % a major sublingual gland duct aroused along deep surface of gland.

Congenital ranula are mostly asymptomatic ,can rarely present as feeding disability or ARDS .Various mode of investigation can be used for diagnosis ie USG,CT AND MRI occlusal view.

Treatment of congenital ranula varies from simple aspiration to marsupilization to complete excision .

## CONCLUSION

Congenital ranula is rarity . The scarcity of literature leads a road for new researches in this entity .As seen in our case if neglected this can even lead to bony dystrophy and dental attrition with tongue atrophy.

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## DECLARATIONS

- CONFLICTS OF INTEREST (CASE 1 presented as poster presentation in FHNO Conference 11th to 13th October 2019)
- ETHICAL COMMITTEE APPROVAL OBTAINED
- NO FUNDING

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