



## Epidermoid cysts

### AUTHORS

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### Abstract

Epidermoid cysts are benign subcutaneous lesions and represent less than 0.01% of all oral cavity lesions<sup>2</sup>. These cysts are defined as epidermoid when the lining represents only epithelium.

In this article we present a case of a 14 year old girl who came to otorhinolaryngology OPD , with complaints of a mass in the oral cavity, since 7 months . The mass was seen in the floor of the mouth and externally in submental area 1cm above the hyoid bone vertically. On examination , a globular swelling of size approximately 4X3cm , which was initially peanut size in oral cavity and had gradually progressed to the size of a lemon , which was soft to cystic in consistency, mobile, non tender , displacing the tongue superiorly was seen. The transillumination test was positive. The swelling showed visible vessels, but had No erythema, no visible discharging sinus/pus. It was not associated with dysphagia, odynophagia, breathlessness, hoarseness of voice . Under general anesthesia and intubation, the surgical excision of the mass was done. Intraorally, transverse incision was taken just below the level of right lower lateral incisors to lower left lateral incisors and the specimen was delivered from the floor of the mouth. Histopathological examination was consistent with epidermoid cyst .The patient did well postoperatively.

### Introduction

Epidermoid cysts are epidermal inclusion cysts, lined by stratified squamous epithelium

They are nonodontogenic lesions more common in head and neck and rarely occur intraorally i.e they account for less than 0.01% of all the cysts<sup>2</sup>

The floor of mouth is the most commonly affected region of oral cavity of which sublingual region is the most common space for epidermoid cyst<sup>1</sup>. These are epidermal inclusion cysts, lined by stratified squamous epithelium similar to skin .

### Case Report

A 14 year old female patient was admitted under otorhinolaryngology department with complaints of a mass in the oral cavity and the same swelling was noticed submentally since 7 months .The swelling was insidious in onset , gradually progressive and initially approximately of size 1x1cm which progressed to a size of 4x3cm over a period of 7 months. It was not

associated with any aggravating or relieving factors. There was no history of similar complaints in the past , any previous surgery or trauma to the oral cavity or neck. On examination of the oral cavity, a soft to cystic, non mobile, non tender mass approximately of size 4x3cms present in the sublingual region which moves with protrusion of tongue and deglutition was seen . The swelling was not associated with local rise of temperature and no sinus or fistula was seen over the swelling. The mass was transillumination positive.

The swelling was also noticed in the submental area, extending vertically 1cm above the hyoid bone and 1cm inferior to the submentum .

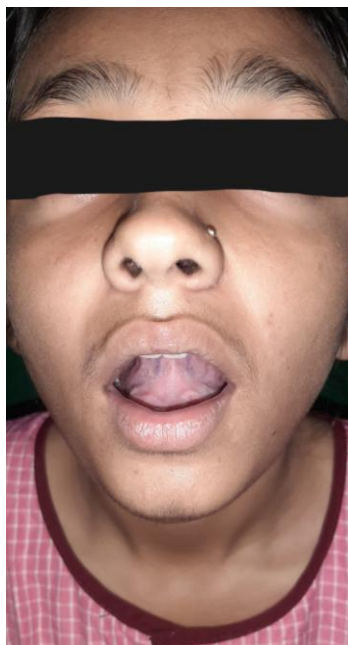
USG NECK was done and it showed thin walled submandibular midline cystic lesion extending upwards between the geniohyoid muscle into the sublingual space , showing upward movement on deglutition , protrusion of tongue. Possibilities are plunging ranula and thyroglossal duct cyst . multiple tiny colloid cysts in both lobe of thyroid gland .

The MRI NECK showed a well defined thin walled non enhancing cystic lesion approximately measuring 5.6x3.8x4.2cm (CCxAPxTR) in the midline of the neck centred in the floor of mouth s/o benign lesion ? Ranula and ? Epidermoid cyst.

### Figure 1

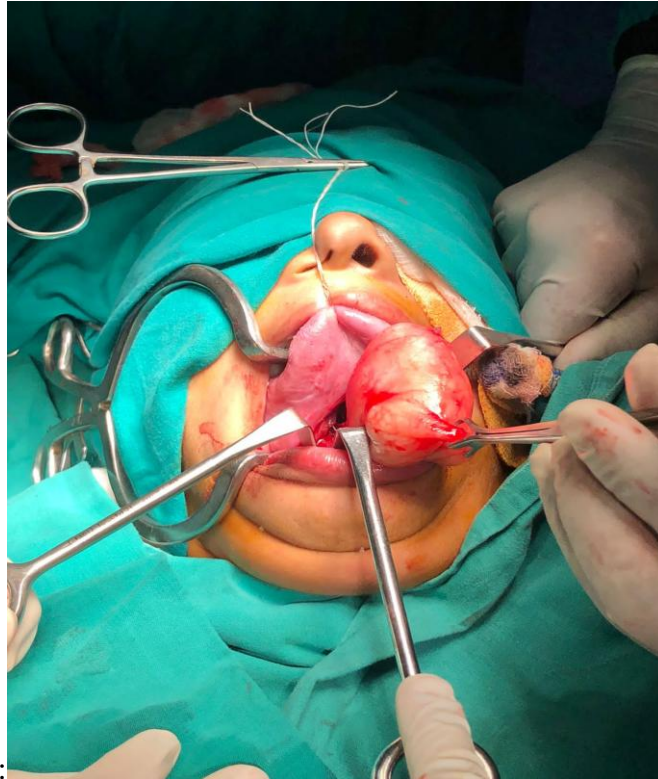
A MRI scan showing a well-circumscribed non-enhancing cystic mass extending from the sublingual area to the thyroid notch level.

### Figure 2



A per-operative view to the cyst.





**Figure 3:INTRAOPERATIVE :**







## Discussion

A Ranula is a mucous extravasation cyst involving sublingual gland and is a type of mucocoele<sup>3</sup>. Its characteristic features are blue colour, dome shaped, fluctuant swelling usually in the tissues of the floor of the mouth. The location of ranula is usually lateral to the midline, most commonly seen in young children and adults, may grow to become large sized<sup>6</sup>. Transillumination test is always positive due to its cystic nature.

Epidermoid cysts they present a characteristic double chin. These are generally diagnosed in young adults in the second and third decades of life, although the case presented here was an 14 year old girl.

Histologically, midline dermoid cysts of the floor of the mouth are classified according to Meyer's classification, thus dividing them into three groups: epidermoid cysts, which consist of an epithelial-lined wall that may be partly keratinized; dermoid cysts, which are epidermoid-like cysts but show evidence of skin appendages, such as hair follicles, hair, sweat, and sebaceous glands; and teratomas, which contain, in addition to skin appendages, mesodermal elements such as bone, muscle, respiratory and gastrointestinal tissues, and a fibrous capsule<sup>4</sup>. The latter type is the only variety that may have a malignant change.

Anatomic classification divides the cysts of the floor of the mouth into three groups according to their relation to the muscles of the floor of the mouth: sublingual or median genioglossal cysts, located above the geniohyoid muscles; median geniohyoid cysts, located in the submental region between the geniohyoid and mylohyoid muscles; and lateral cysts, located in the submaxillary region<sup>5</sup>.

The differential diagnosis of sublingual lesions includes: Ranula, lymphatic malformation, dermoid cyst, epidermoid cyst, heterotopic gastrointestinal cyst and duplication foregut cyst. For this reason, bimanual palpation and conventional radiography are not always sufficient in making differential diagnoses<sup>8,9</sup>. In these cases, it is necessary to use ultrasonography, computed tomography, or magnetic resonance imaging together with cytologic examination by fine-needle aspiration biopsy<sup>7</sup>. USG is reliable, economical and is usually the first line of investigation. Computed tomography and magnetic resonance imaging help in more precise localization of the lesion. All of these investigations help the surgeon for a better surgical approach.

Surgical enucleation is the only effective treatment for these kinds of lesions. Several techniques like intraoral and extraoral techniques are used for the surgeries.

Prognosis is very good, with a very low incidence of relapse. Malignant changes have been recorded<sup>10</sup>.

## Conclusion

Appropriate imaging techniques are necessary in the preoperative diagnosis of cysts of the floor of the mouth. Surgical enucleation is the only effective treatment for these kinds of lesions.

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