

## Case Report

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# An enlarged congenital dermoid cyst under the floor of mouth; a rare entity

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## ABSTRACT

Dermoid cysts are rare congenital anomalies that arise due to the retention of germinal epithelium. A 26-year-old man was admitted for having complaints of a large, painless, soft sublingual mass with dysphagia and snoring. After general and systemic examination, the patient underwent surgical resection via a cervical approach revealing a (10\*7 cm) cyst. Treatment of these sublingual cysts is surgical resection depending upon the size of the tumor.

**KEYWORDS:** Cysts, Sublingual dermoid cysts, Congenital tumor.

## INTRODUCTION

Dermoid cysts are rare entities that occur mainly in the male and female reproductive system, especially in the ovaries and testes but can occur anywhere in the body [1]. Dermoid cyst on the floor of mouth accounts for 1 to 1.6% of all the occurring cysts [2]. Midline fusion between the first and second arches during the fourth week of development leads to the formation of dermoid cysts. These are uncommon non-neoplastic lesions that progress slowly and manifest symptoms in the second or third decade of life [3]. The most common site for developing congenital sublingual dermoid cyst is the floor of the mouth [4]. Large and giant cysts are rare entities that pose a severe threat to the individual and the surgeon operating this.

## CASE REPORT

A 26 years old man was admitted for a bulky submental mass, enlarging and evolving since birth. The patient had snoring complaints, difficulty in swallowing and chewing with snoring, and a muffled voice. General Physical examination followed by a systemic examination recorded no abnormal findings. Oral examination revealed a large (10\*7 cm) painless, bulky mass restricting tongue motility located in a submental region with his tongue touching the palate's roof, giving an appearance of "Second tongue" or "Double Tongue." (Figure-I) Ultrasound and CT scans were not performed to financial barriers. The large-sized

cyst precipitated the risk of endotracheal intubation to be performed under severe circumstances. A curved incision from one angle of the mandible to another angle was made in the submental region to expose the tumor (Figure-II). The cyst was mobilized by applying pressure from sublingual down. After resection, the cyst was excised intact (Figure-III). The patient was admitted to the hospital for three days for post-operative follow-up. The biopsy report revealed the cystic mass, non-malignant. The patient was kept for follow-up for one month but did not complain about any sequelae or complications.

## DISCUSSION

Dermoid cysts are rare soft, painless, gradually enlarging and evolving cysts located anywhere on the body caused by germinal epithelium retention [5]. The cyst classification comprises three main types, Epidermoid cysts, teratoid cysts, and true dermoid cysts. Sublingual dermoid cysts are rare swellings composed of epidermis, sweat glands, sebaceous glands, and hair follicles in the wall [6]. Dermoid cysts evolve and predominate in the late 20s and 30s of life. Authors state the reason behind an increase in the bulk of the swelling in puberty is due to increased secretion of sebum through the sebaceous glands [7]. Patients with a congenital dermoid cyst at the mouth's floor present with a sizeable sublingual mass are gradually increasing and evolving resulting in difficulty chewing, swallowing, and breathing difficulties with muffled voice production.

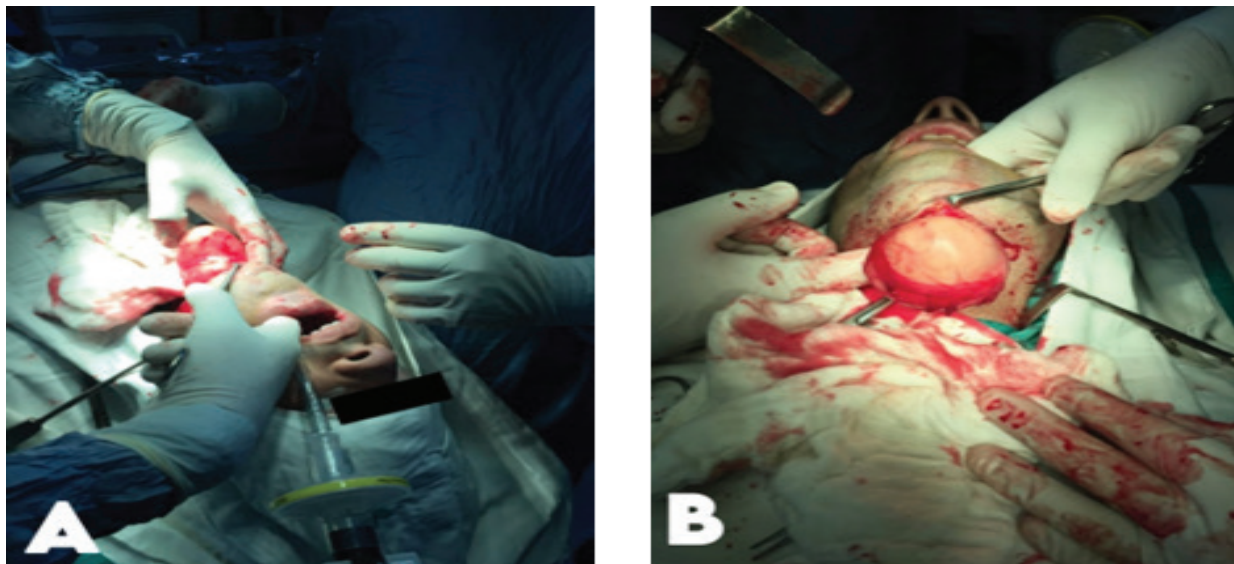
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**Figure-I:** (A) Extra-Oral frontal view of the giant dermoid cyst, (B) Intra-oral view of cyst indicating Double tongue, second tongue appearance, (C) Intraoral view with the tongue touching the roof of the palate.



**Figure-II: Pre-Operative Views (A) Superior view (B) frontal view.**

Protrusion of tongue or swelling beneath the chin can be suspected as submental, sublingual, cervical mass, Ludwig's angina, ranula, thyroglossal duct swelling, cystic hygroma, and branchial cleft cyst as the differential diagnosis [8].

Sublingual Dermoid cysts may lie deep or superficial to the Genohyoid or Mylohyoid muscles. The cyst site carries immense significance as it allows the correct surgical approach to excise the cyst. The diagnosis is confirmed by CT Scan, Magnetic Resonance Imaging (MRI), and histologic specimen imaging. Ultrasound imaging reveals a pseudo solid cystic mass, while a CT scan indicates a thin-walled, cystic mass filled with fatty secretions. Due to the large swelling, endotracheal intubation can be challenging and difficult, which can be substituted by tracheostomy. The cyst is excised surgically by two approaches depending upon the size of the cystic swelling [9]. Reoccurrence is rare but may follow incomplete resection. Studies relate rare cases of dermoid cysts associated with squamous cell carcinoma invasive in nature.



**Figure-III: Excised Cyst.**





**Figure-IV: Post-Operative View (A) Intraoral view with normal protrusion of tongue (B) Floor of the tongue.**

#### CONCLUSION

Congenital sublingual dermoid cysts are uncommon entities, and surgical excision remains the mainstay treatment. Authors suggest that cysts excised via intraoral approach is an ideal approach and gives the surgeon a better view and easy access to the cyst<sup>[10]</sup>. The cervical approach is the superior method for a large size cyst as compared to the intraoral approach.

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#### Author's Contribution:

**Muhammad Hamza Rana:** Manuscript writing, and literature review.

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