



Intraoral Dermoid Cyst- A Rare Case Report

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ABSTRACT

Dermoid cyst are usually a congenital origin and although they may present at birth, but they do not clinically evident until early adulthood. Although, a dermoid cyst may occur in head and neck region, the intraoral dermoid cyst are rare. Here we present a case of intraoral dermoid cyst in sublingual region, who underwent surgical excision.

KEYWORDS : Cyst, Floor Of Mouth, Dermoid Cyst, Epidermoid

INTRODUCTION:

Dermoid cyst of the oral cavity are very rare cystic lesions of dysembryogenic origin. These cystic lesions may arise from sequestration of ectodermal and mesodermal cells in the midline during the fusion of first and second branchial arches. This may take place at 3rd or 4th week of development. But clinically this lesion may occur commonly in second or third decade of life due to unknown proliferative stimulation. The primary site of dermoid cyst are ovaries and testes, although they may occur at any fusion point of human body. Dermoid cyst may occur very rarely in head and neck region approximately 7% and the commonest site in head and neck area is external third of eyebrow. The reported incidence of dermoid cyst in floor of the mouth is 1.6%. The size of lesion may vary from few millimeter to several centimeter in diameter. The characteristic feature of dermoid cyst are painless, slow growing lesion in the floor of the mouth and may cause elevation of tongue, difficulty in speech and presence of double chin. Treatment of dermoid cyst in the floor of the mouth is complete surgical excision. We report a case of dermoid cyst of floor of the mouth of young adult who underwent surgical excision.

CASE REPORT:

A 19 year old female patient reported to Indira Gandhi Institute of Dental Sciences, Puducherry, India with the chief complaint of swelling in the left side of floor of the mouth for the past two years. On examination swelling in the anterior part of floor of the mouth which is elevating the tongue upwards and posteriorly. Despite this there was not much speech impairment. The swelling was more accentuated during swallowing. Intraorally, the floor of the mouth was covered by normal mucosa and fluctuation could not be elicited. Orifice of Wharton's duct appears normal. In addition to the above finding there was an extra oral submental swelling which was soft and compressible (Fig 1). Regional lymph nodes were not palpable. FNAC of the lesion was performed. Aspirate was yellowish creamy material. Ultrasound examination reveals well encapsulated cystic swelling in the floor of the mouth measuring 2.5 x 2.1 x 3.8 cm and its wall thickness ranges from 1.7 to 2 mm. No vascularity seen in the swelling. Computerized tomography (CT) of the lesion (fig 2) with contrast enhancement was done which showed well defined radiolucency in the floor of the mouth and submental space suggestive of cystic lesion.

The patient underwent surgical excision under general anesthesia by intraoral approach (fig 3). Mouth prop was placed in opposing arch. A traction suture was placed in tip of the tongue and pulled upward and forward for ease access of the lesion. The mucosal incision was placed in left side of floor of the mouth just parallel and lateral to submandibular duct. Blunt dissection done to expose the roof of the lesion. Due to its thickened wall, the lesion was easily removed in toto

(fig 4) by blunt dissection.

DISCUSSION

In 1998 Acree et al described the pathogenesis of dermoid cyst. According to him there are two theories of origin. The first one congenital origin thought to develop from epithelial nests which entrapped in midline during closure of first and second branchial arches. The second one noncongenital origin thought to arise due to traumatic occlusion of hair follicles or sebaceous glands.

Histologically dermoid cyst classified into three types which are epidermoid, dermoid and teratoid. The epidermoid cyst usually lined by simple squamous epithelium with fibrous wall. The second variant dermoid cyst lined with keratinized epithelium and contains skin appendages like sweat and sebaceous glands and hair follicles. It is also known as compound cyst. The third variant teratoid also known as complex cyst which lined by various types of epithelium ranges from simple squamous epithelium to ciliated respiratory type epithelium. It contains all the derivatives of ectoderm, mesoderm and endoderm (2). In our case histologic findings consistent with epidermoid cyst.

Dermoid cyst in the floor of the mouth further classified according to their anatomic position in relation to geniohyoid muscle. It may occur either above or below the geniohyoid muscle. If the cyst is located above the geniohyoid muscle may cause sublingual swelling which may displace the tongue upwards towards the palate may cause difficulty in speaking, eating and breathing. This type of cystic lesions are also known as genioglossal cyst or sublingual cysts. If the cyst occurs below the geniohyoid muscle may cause submental swelling appears as double chin. This kind of cyst also known as geniohyoid cyst.

Carcinomatous transformation of dermoid cyst has been reported. The ideal treatment for dermoid cyst is complete surgical excision through intraoral or extraoral approaches depends on location & size of dermoid cyst. If the cyst is located above the geniohyoid muscle may be removed through intraoral approach. But if cyst is located below the geniohyoid and larger cysts may be removed through submental approach. In 1981 Rapisid et al suggested that almost all the lesions of dermoid cyst in the floor of the mouth can be removed through intraoral approach even in cases of larger cysts (1). But both the approaches have their own advantages and disadvantages. Intraoral approach has high risk of infection but in case of extraoral approach there will be a visible scar in the submental region. In our case we operated through intraoral approach and avoided the visible submental scar in young adolescent girl. Because of its dense fibrous wall, the cystic lesion was removed in toto.

Fig 1: Preoperative picture showing swelling in submental region



Fig 2: CT showing dermoid cyst in floor of the mouth



Fig 3: Intraoperative picture showing dermoid cyst removal through intraoral approach



Fig 4: Dermoid cyst excised in toto



REFERENCES

1. Ichiro Akao et al. A case of large dermoid cyst in the floor of the mouth. *Auris Larynx* 30(2003) S137-S139 |
2. P.T. Blenkinsopp. Recurrent dermoid cyst of the floor of the mouth. *Br.J. oral surgery* (1980), 18, 34-39 |
3. S. Fuchshuber, G. Grevers, Wolfgang J. Issing. Dermoid cyst of the floor of the mouth - A case report. *Eur arch. otorhinolaryngol* (2002) 259:60-62 |
4. Harsha Jain, sanjay singh, Amit singh. Giant sublingual dermoid cyst in floor of the mouth. *J. Maxillofac. oral surg* (Apr-june 2012) 11(2):235-237 |