

Giant Sublingual Epidermoid Cyst

SA HOQUE^a, MM ISLAM^b, MA RASHID^c

Summary:

Epidermoid and dermoid cysts represent less than 0.01% of all oral cavity cysts. The cysts can be defined as epidermoid when the lining presents only epithelium, dermoid cysts when skin adnexa are found, and teratoid cysts when other tissue such as muscle, cartilage, and bone are present.

In this article, we present a case of sublingual epidermoid cyst with a submental component in a 15 years old girl. She presented with complaints of a mass in the oral cavity, difficulty in speaking, dysphagia, progressive snoring during sleep, occasional shortness of breath and cosmetic problems for last

6 months. A mass displacing the tongue superiorly and posteriorly was noticed in oral cavity and a firm diffuse swelling was also noticed in the submental area, extending down to the thyroid notch. The differential diagnosis includes infectious process, ranula, lymphatic malformation, tumours etc. FNAC revealed preoperative diagnosis of an epidermoid cyst. Under general anesthesia a submental horizontal incision was made and the mass was excised completely. Histopathological examination of the mass confirmed diagnosis of an epidermoid cyst.

(J Bangladesh Coll Phys Surg 2013; 31: 159-161)

Introduction:

Dermoid cysts are classified as epidermoid, true dermoid & teratoid cysts^{1,2}. However the term “dermoid” is typically used to indicate all three categories³. Epidermoid cysts do not contain skin adnexal structure. True dermoid cysts contain skin adnexal structures such as hair, hair follicle, sweat gland & sebaceous gland. Teratoid cysts contain all three embryological elements such as nails, brain, muscle, glandular tissue.^{1,2,4}

Sex distribution is equal⁵. 7% of all dermoid cysts occur occurring in the head and neck area and 1.6% within the oral cavity⁶. They represent less than 0.01% of all oral cavity cysts⁷.

They may reach a large size involving more than one anatomical area and/or about the hyoid bone when in the neck⁸. Such a swelling on the floor of the mouth can occasionally cause serious problems for swallowing and speaking^{9,10}.

The treatment of dermoid cysts is surgery by an intraoral or extraoral route according to the location and the size of the mass¹¹.

Case Report

A 15 years old female from Bishwanath, Sylhet presented with the complaints of a mass in the oral cavity, difficulty in speaking, dysphagia, progressive snoring during sleep, occasional shortness of breath and cosmetic problems for the past 6 months. The swelling started insidiously, followed by a slow progression and attained a huge size. There was no history of previous surgery or trauma to the oral cavity or neck. On examination, there was a big sublingual mass with extension to submental region. Sublingual mass had normal covering mucosa displacing the tongue superiorly and posteriorly. A firm diffuse swelling was also noticed in the submental area, extending down to the thyroid notch giving the patient a double chin appearance. The swelling was non tender and firm in consistency. On pressure over tongue with glove finger swelling at submental area moved downward to increase in size. The swelling did not fluctuate, neither it did transilluminate. The regional lymph nodes was not palpable. FNAC of swelling made diagnosis of epidermoid cyst. She was advised excision of mass by extra oral route. Under general anesthesia with endotracheal intubation, the patient underwent surgical removal of the mass on 08.04.2012 at a private hospital at Sylhet, Bangladesh. A horizontal incision was made at submental area. Platysma was divided, muscles of floor of mouth were splitted and a giant cyst about 6.5cmX3.5cmX3cm was dissected from the surrounding tissues and removed. Downward pressure over tongue by glove figure assisted dissection of mass. The wound was closed primarily. There was no intra-

a. Dr. Shameem Anwarul Hoque, FCPS (Otolaryngology), Associate Professor of Otolaryngology, Jalalabad Ragib – Rabeya Medical College, Sylhet, Bangladesh.

b. Dr. Md. Mofakkarul Islam, DLO, Consultant, Otolaryngology, Jalalabad Ragib – Rabeya Medical College, Sylhet, Bangladesh.

c. Dr. M A Rashid, DA, Associate professor of Anesthesiology, Jalalabad Ragib – Rabeya Medical College, Sylhet, Bangladesh.

Address of Correspondence: Dr. Shameem Anwarul Hoque, 11, Housing Estate, Amborkhana, Sylhet 3100, Bangladesh, Mobile #0171500254, Email: sahoque@gmail.com

Received: 9 May, 2012

Accepted: 21 November, 2012

procedure complication. Proper haemostasis ensured. The postoperative period was without any complication and the tongue went back to its normal position. Histological examination of resected specimen confirmed the diagnosis of epidermoid cyst.



Fig.-1: Swelling in sublingual region



Fig.-2: Swelling at submental area (double chin)



Fig.-3: Per-operative view of the cyst

Discussion:

Epidermoid cysts may be classified as congenital or acquired. Other authors proposed that midline cysts may represent a variant form of thyroglossal duct cyst^{3,11,9,12}. Because they can displace the tongue, patients usually present with dysphagia, dysphonia, and dyspnea, and in the case of lower localization, they present a characteristic double chin¹¹.

Dermoid cysts are generally diagnosed in young adults in the second and third decades of life¹¹.

The differential diagnosis of sublingual lesions includes: infectious process, ranula, lymphatic malformation, dermoid cyst, epidermoid cyst, heterotopic gastrointestinal cyst and duplication foregut cyst. In these cases, it is necessary to use ultrasonography, FNAC, CT scan or magnetic resonance imaging⁹. Ultrasonography represents the first choice of imaging technique because it is reliable, economical, and without x-ray exposure. CT scan and magnetic resonance imaging allow more precise localization of the lesion in relationship to geniohyoid and mylohyoid muscles, and enable the surgeon to choose the most appropriate surgical approach¹¹.

Complete surgical excision is the only effective treatment and is usually straightforward^{4,5}. Several techniques are reported in the literature, which may be divided into intraoral and/or extraoral approach⁸. The extraoral approach is generally preferred in the case very large sublingual cysts, whereas the intraoral approach is used for smaller sublingual cysts¹³.

Malignant changes have been recorded in dermoid cysts by New and Erich but not in the floor of the mouth, although a 5% rate of malignant transformation of oral dermoid cysts of the teratoid type has been reported by other authors¹⁴.

Conclusion

Dermoid cysts of floor of mouth may involve more than one anatomical area specially submental area and reach a large size. Such a swelling can occasionally cause serious problems for swallowing and speaking. FNAC and imaging are necessary in the preoperative diagnosis and selection of appropriate surgical approach. Complete surgical excision is the only effective treatment for these kinds of lesions. Prognosis is very good, with a very low incidence of relapse.

References:

1. Simo R & Jeannon J P. Benign neck disease, In: Watkinson J C & Gilbert R W, editor, *Stell & Maran's Textbook of Head and neck surgery and oncology*, 5th ed, Hodder Arnold, 2012 : 218-219.
2. Calderon S, Kaplan I. Concomitant sublingual and submental epidermoid cysts: a case report. *J Oral Maxillofac Surg.* 1993;51:790-792.
3. Howell CJT. The sublingual dermoid cyst: Report of five cases and review of the literature. *Oral Surg Oral Med Oral Pathol.* 1985;59:578. doi: 10.1016/0030-4220(85)90184-7.
4. Lin D T & Deschler D G . Neck masses, In: Lalwani A K editor, *Current diagnosis & treatment otolaryngology – Head & Neck Surgery*, 2nd ed, McGraw Hill Medical, 2008:402.
5. Clarke P. Benign neck disease: infections and swellings, In : Gleeson M, editor, *Scott-Brown's Otorhinolaryngology, Head and neck Surgery*, 7th ed, volume 2, Hodder Arnold, 2008: 1782.
6. Turetschek K, Hospodka H, Steiner E. Case report: epidermoid cyst of the floor of the mouth: diagnostic imaging by sonography, computed tomography and magnetic resonance imaging. *Br J Radiol.* 1995;68:205-207.
7. Rajayogeswaran V, Eveson JW. Epidermoid cyst of the buccal mucosa. *Oral Surg Oral Med Oral Pathol.* 1989;67:181-184. doi: 10.1016/0030-4220(89)90326-5.
8. Bitar MA, Kumar S. Plunging congenital epidermoid cyst of the oral cavity. *Eur Arch Otorhinolaryngol.* 2003;260: 223-225.
9. Walstad WR, Solomon JM, Schow SR, Ochs MW. Midline cystic lesion of the floor of the mouth. *J Oral Maxillofac Surg.* 1998;56:70-74.
10. Koca H, Seckin T, Sipahi A, Kazanc A. Epidermoid cyst in the floor of the mouth: Report of a case. *Quintessence Int.* 2007;38:473-477.
11. Longo F, Maremonti P, Mangone GM, De Maria G, Califano L. Midline (dermoid) cysts of the floor of the mouth: report of 16 cases and review of surgical techniques. *Plast Reconstr Surg.* 2003;112:1560-1565.
12. De Ponte FS, Brunelli A, Marchetti E, Bottini DJ. Sublingual epidermoid cyst. *J Craniofac Surg.* 2002;13:308-310.
13. Lowry RE, Tempero RM, Davis LF. Epidermoid cyst of the floor of the mouth. *J Oral Surg.* 1979;37:271.
14. Zachariades N, Skoura-Kafoussia C. A life threatening epidermoid cyst of the floor of the mouth: Report of a case. *J Oral Maxillofac Surg.* 1990;48:400.