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Sublingual Epidermoid Cyst: A Rare Case Report

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Abstract

Epidermoid cysts are an exceptionally rare cystic malformation of the oral cavity, their occurrence being the rarest in the floor of the mouth. They usually occur due to the entrapment of the ectodermal tissue of the first and second branchial arches which fuse during the third and fourth weeks in utero.

Keywords: Epidermoidcyst; Cystic Malformation; Ectodermal Tissue; Oral Cavity; Keratin.

Introduction

Epidermoid cyst, is a benign encapsulated, subepidermal nodule filled with keratin material. Although most commonly located on the face, neck, and trunk, epidermoid cysts can be found anywhere including the scrotum, genitalia, fingers, and very occasionally within the oral cavity. (1) Epidermoid cysts on the floor of the mouth are often relatively soft unfluctuating masses, frequently adhered to the child's hyoid bone. In adults, the cyst on the floor of the mouth is located between the geniohyoid and mylohyoid muscles. It brings about an upward displacement of the tongue, slurred speech, and difficulty in swallowing. When the cyst locates itself between the mylohyoid muscle and the neck's cutaneous muscle, it is referred to as a geniohyoid cyst with displacement outward and resembling a double chin.[2] This case report presents an interesting case of a sublingual epidermoid cyst, which clinically presented as a plunging ranula.

Case Presentation

A case of intraoral epidermoid cyst is being presented involving the floor of the mouth.

The case presented with a mildly fluctuant mass involving the sublingual region and the floor of mouth with relative upward displacement of the tongue (fig.1).

This had been reported as a slowly enlarging mass over a period of seven to eight years; and the patient was aware of the lesion but did not seek treatment. Pre-operative case assessment was taken into consideration using OPG, USG and CT.

The lesion was surgically excised fig.2) under general anaesthesia and submitted for histopathological evaluation.

Gross features revealed a capsulated mass with cheesy yellowish white flakes of what resembled to be inspissated keratin (fig.3).

Representative samples were sectioned and submitted for histopathological evaluation. Microscopy revealed presence of eight to ten layers of squamous epithelium surrounding a cystic lumen that contained flakes of keratin. The stromal wall did not contain any skin adnexa, but revealed a fibrocollagenous matrix with nonspecific inflammatory infiltrate (fig.4A, 4B). Hence the diagnosis of epidermoid cyst was inferred and the patient was advised periodic follow ups.

Discussion

Dermoid cysts of the floor of the mouth are painless lesions that swell over the course of time, until they gradually increase to a noticeable size when the patient finds it difficult to speak, chew or swallow properly. Dermoid cysts may be classified as congenital or acquired, even if there is no difference between the two on presentation or histologically (3-5). Congenital type found in the cervicofacial region is derived from entrapment of epithelial cells during midline fusion in embryonic development (9). Acquired cysts derive from traumatic or iatrogenic inclusion of epithelial cells or from the occlusion of a sebaceous gland duct (3,6-8). While dermoid cysts can be seen at virtually any age, the highest incidence occurs in patients between 15 and 35 years of age, with no gender predilection (10,11). Dermoid cysts usually develop insidiously with patients not becoming aware of their presence until they are large enough to interfere with eating, speaking or swallowing (12).

Depending on the anatomic location of the cyst and the muscles of the floor of the mouth, dermoid cysts may be defined as sublingual or submental (13). A sublingual cyst is located above the geniohyoid muscle and swelling with displacement of the tongue may occur. In cases that develop below the geniohyoid, a submental swelling with a “double chin” appearance may occur (12). Because these lesions may also become secondarily infected and in rare cases may undergo a malignant change, they are indicated for removal (12).

The only effective treatment of Dermoid cysts is surgical removal with complete enucleation. Treatment for a small cyst above the geniohyoid muscle may be possible through an intraoral approach and those occurring below the muscle may require an extra oral approach. Recurrence and malignant transformation to squamous cell carcinoma are rare (12).

Conclusion

Sublingual cysts are rare; epidermoid cysts are rarer in this site. So a meticulous clinic pathological differential diagnostic approach is a must in such cases for a successful surgical treatment planning.

References

1. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan. 2023 Aug 8.
2. Neville BW, Damm DD, Allen CM, Bouquot JE. Oral and maxillofacial pathology. 2nd ed. Philadelphia: Saunders; 2002. [Google Scholar]
3. Lowry, R. E., Tempero, R. M., and Davis, L. F. Epidermoidcyst of the floor of the mouth.J. Oral Surg.37: 271, 1979.7.

4. Meyer, I. Dermoid cysts (dermoids) of the floor of themouth.Oral Surg. Oral Med. Oral Pathol.8: 1149, 1955.8.
5. Zachariades, N., and Skoura-Kafoussia, C. A life threat-ening epidermoid cyst of the floor of the mouth: Re-port of a case.J. Oral Maxillofac. Surg.48: 400, 1990.9.
6. Erich, J. B. Sebaceous, mucous, dermoid and epider-moid cysts.Am. J. Surg.50: 672, 1940.10.
7. Walstad, W. R., Solomon, J. M., Schow, S. R., and Ochs,M. W. Midline cystic lesion of the floor of the mouth.J. Oral Maxillofac. Surg.56: 70, 1998.11.
8. Brusati, R., Galioto, S., Tullio, A., and Moscato, G. Themidline sagittal glossotomy for treatment of dermoidcysts of the mouth floor.J. Oral Maxillofac. Surg.49:875, 1991
9. Erich JB. Sebaceous, mucous, dermoid and epidermoid cysts. Am J Surg. 1940;50:672. doi: 10.1016/S00029610(40)904639. [CrossRef] [Google Scholar]
10. Meyer I. Dermoid cysts (dermoids) of the floor of the mouth. Oral Surg Oral Med Oral Pathol. 1955; 8:1149–1164. doi: 10.1016/0030-4220(55)90380-7. [PubMed] [CrossRef] [Google Scholar]
11. King RC, Smith BR, Burk JL. Dermoid cyst of the floor of the mouth. Oral Surg Oral Med Oral Pathol. 1994;78:567–576. doi: 10.1016/0030-4220(94)90166-X. [PubMed] [CrossRef] [Google Scholar]
12. Neville BW, Damm DD, Allen CM, Bouquot JE. Oral and maxillofacial pathology. 3. St. Louis: Saunders Elsevier; 2009. pp. 33–35. [Google Scholar]
13. Di Francesco A, Chiapasco M, Biglioli F, Ancona D. Intraoral approach to large dermoid cysts of the floor of the mouth: a technical note. Int J Oral Maxillofac Surg. 1995; 24:233–235. doi: 10.1016/S0901-5027(06)80135-9. [PubMed] [CrossRef] [Google Scholar]

Legend Figures

Fig. 1: Sublingual mass with prominent upward displacement of tongue.

Fig. 2: Excised mass

Fig.3: Well capsulated mass with cheesy keratin flakes

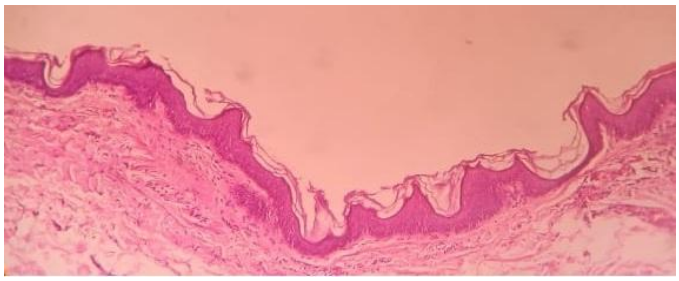

Fig. 4 A: Photomicrograph showing lining epithelium with keratin in cystic lumen (4x view)

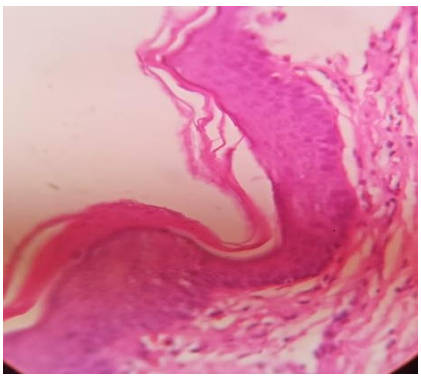

Fig. 4 B: Photomicrograph showing lining epithelium with keratin in cystic lumen (10 x views)