CASE REPORT

Oral Lipoma - A Case Report

Umamaheswari.G[1], A.Santha Devy[2], Vidyalakshmi.S[3], Satheesh Kumar.K[4]

ABSTRACT : Lipomas are benign tumors consisting entirely of mature fat cells (adipocytes) and they can occur anywhere in body among which intraoral lipoma comprises only 0.1% to 4.5% of all benign tumors. It is most frequently tend to occur in major salivary glands (especially the parotid gland) followed by the buccal mucosa, lip, tongue, palate, floor of the mouth, and gingiva. Lipomas are usually asymptomatic, slow growing round to ovoid mass with soft consistency. Large sized intra oral lipomas may cause discomfort, difficulty in chewing, dysphagia and dyspnea. The objective of this paper is to present a case of oral lipoma in the buccal mucosa in a 38 years old male patient.

Keywords: *Oral Lipoma, Buccal mucosa, Adipocytes*

Introduction :

Odontoma is an odontogenic mixed benign neoplasm that originates from epithelial and ectomesenchymal component. They are generally small but occasionaly grow to large sizes.[1] Most authors accept that odontoma represents a hamartomatous malformation rather than a true neoplasm. [2] Odontoma is called as composite odontoma, since it is composed of more than one type of tissue such as enamel, dentin, variable amounts of cementum and pulpal tissue.[3,4] Aetiology of odontoma is unknown. Local trauma/infection can cause odontoma. Males show a slight higher predilectioin when compared to females. [2,6] The mean age of incidence is around 14 years and most prevalent age of diagnosis is around 2nd decade of life.[5] Maxilla shows greater predilection than mandible at the ratio of 3:1.[2] In general odontomas are asymptomatic, occasionally presents with signs and symptoms related to their surrounding structures, such as unerupted / impacted teeth ,retained deciduous teeth ,swelling and evidence of infection.

Odontoma can be classified into three variants clinically: Central (intraosseous) odontoma, peripheral (extraosseous) odontoma and erupted odontoma. Intraosseous odontoma is further sub-classified into compound and complex odontoma. The compound type is more prevalent in maxillary anteriors (61%) and complex in (59%).[2] Compound odontoma characteristically comprises multiple, small tooth like structures whereas complex odontoma presents as a conglomerate mass of dentin and enamel. [5]

Case Report - 1

A 9 year old female came with the complaint of missing upper right second tooth. On intra oral examination a diffuse swelling was seen in the region of 12 which was firm to hard in consistency. Intra oral periapical radiograph in 12 revealed a radiopaque mass which had obstructed the eruption of 12 [**Figure 1a**]. Macroscopic examination revealed a small primary tooth like structure which was hard in consistency [**Figure 1b**]. Microscopic examination of the ground section of the specimen revealed well organized enamel and dentin like structures with no evidence of root [**Figure 1c**].

Case Report - 2

A 11 year old male came with the complaint of missing anterior tooth. On intraoral examination a firm swelling was noticed in maxillary anterior region in th region of 11, but it was not associated with any pain. Upon radiographic investigation, OPG revealed a radiopaque mass obstructing the eruption pathway of the impacted 11**[Figure 2a]**. The mass is removed and patient referred to orthodontic alignment. Macroscopy revealed hard tissue bits resembling teeth with crown and root like portions. Small tooth like structure fused to form large agglomerate masses **[Figure 2b]**. Macroscopic examination of the ground section revealed a thin hypoplastic enamel and dentin

like areas, a completely formed root with cementum like structure. Fusion of three teeth like structures were evident **[Figure 2c]**.

Discussion :

The world health organization (WHO) defined the odontoma as 'a malformation in which all the dental tissues are represented, individual tissues being mainly formed but occuring in more or less disorderly pattern'. It is the most commonly occurring benign odontogenic tumour (32-40%) and was coined in the year 1869 by Paul Broca.[2] Odontoma is considered to be a mixed tumour having both epithelial and ectomesenchymal component. Now, it is considered as a developmental anomaly or hamartomatous lesion, rather than true neoplasm. Odontomas most of the times occur solitarily and at times are associated with impacted tooth and other odontogenic cysts and neoplasms, for which the identification and removal of the lesion is urged. [1,2,3]

Etiology of odontomas still remains unknown, however some studies have focused on the remnants of dental lamina as the major etiological factor. Some suggest that it is due to complete functional discrepancy of ameloblasts or odontoblasts occurs during the development of enamel and dentin, but in an irregular arrangement due to the lack of association of these cells to reach a usual state of morphodifferentiation. It might be congenital or due to an altered gene or postnatal genetic intervention of odontogenesis. [7] Genetic incongruities like Gardner's syndrome, Hermann's syndrome and local trauma, infectious or inflammatory processes, have been accredited to the development of odontomas. [1]

WHO classified odontoma into three variants namely, central, peripheral and erupted. Central or intraosseous variant is further subclassified into compound and complex , where compound odontoma presents as malformations in which dental tissues are well-organized in orderly pattern than in the complex odontoma, such that lesion consists of more teeth like structures. Complex odontoma is a malformation in which all dental tissues are well formed but occurring in less orderly pattern without anatomical resemblance to a tooth. [2,5]

Compound odontomas are painless benign lesion with limited growth potential compared to complex odontomas. It usually occur in children and young adult below the age range of 20 years with equal sex predilection. Maxillary anterior region is most frequently involved site. Radiographically, it is characterized by a radiopaque mass of different sizes, with variable amount of enamel, dentin, cementum and pulp and they resemble malformed or supernumerary teeth. The lesion is usually circumscribed by a narrow, radiolucent rim which corresponds to the fibrous capsule. [1,8,9]

Compound odontoma comprises of multiple structures such as enamel, dentin, cementum and even pulp chamber which resembles small teeth like structure, associated with this presence loose fibrous matrix were also present. Under decalcification, enamel that capped the teeth like structure were lost and leaves ample amount of enamel matrix. [5]

The conservative surgical excision of compound odontomas considered to be a treatment of choice. [8] Since odontomas are often associated with unerupted impacted teeth there could be a possibility of tooth eruption after surgical excision of the lesion. There is no recurrence reported till date, however the lesion may recur if it is incompletely removed at its early soft tissue stage.[3] Odontomas involving the maxillary antrum may lead to various complications such as orbital infections, epidural and subdural emphysema, meningitis, cavernous sinus thrombosis, brain abscess and death. [10]

This literature elaborates on two cases that reported to our OPD, with a complaint of missing upper anterior teeth. Both the cases upon examination and investigations were found to be compound odontoma. Our cases were in accordance with the literature with respect to age, radiographic findings, and clinical presentation. The macroscopic and microscopic features revealed structures resembling enamel, dentin and cementum. The lesions were enucleated conservatively and followed up. No recurrence was noticed during the follow up period. Earlier detection and treatment is emphasized to avoid complications that may arise in case of syndromic association and occurrence of an ameloblastic fibro odontoma. [11,12]

Figure 1: Clinical Picture showing a well defined peduculated growth of size 2x2 cm in right buccal mucosa

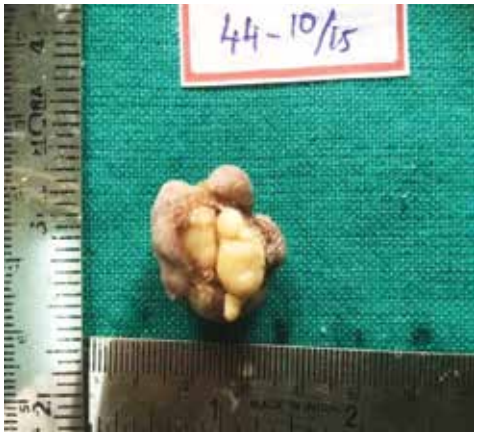


Figure 2a: Showing a yellowish brown soft tissue mass with lobulated surface

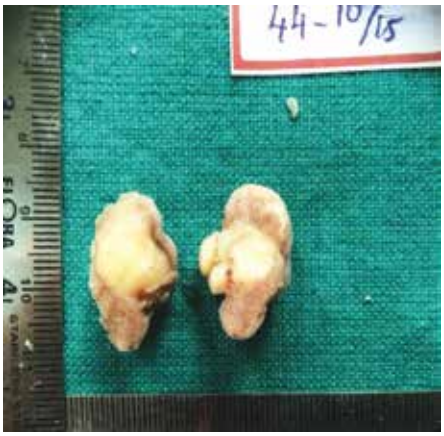
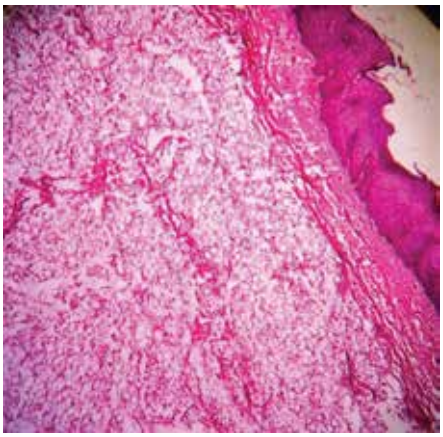


Figure 2b: The cut surface showing pale yellow greasy appearance.



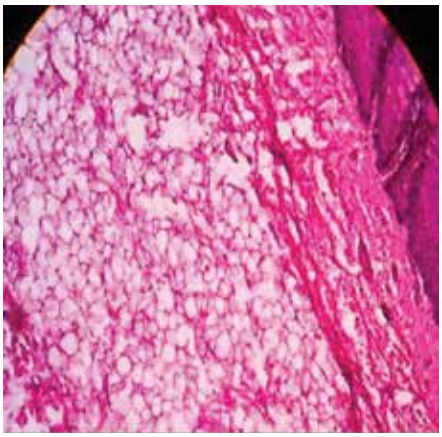


Figure (3a, 3b): Photomicrography shows adipocytes in lobulated pattern of arrangement separated by fibrous septae within the connective tissue, encapsulated by fibrous tissue and overlying epithelium is stratified squamous epithelium. (H&E- 4 X & 10 X)

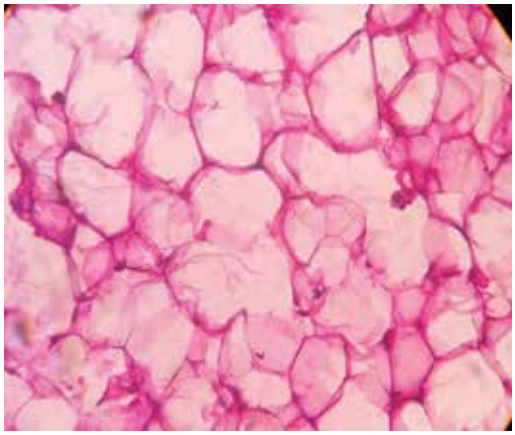


Figure 3c: Photomicrography shows round to polygonal shape adipocytes with peripherally pushed nucleus, cytoplasm is clear/ scanty. H & E- [40x]

Longstanding compound odontoma associated with ameloblastic fibro odontoma [12] may further transform into ameloblastic fibro sarcoma which also occurs in the earlier period of life.[13]

Reference:

1. Fregnani ER, Pires FR, Falzoni R, Lopes MA, Vargas PA. Lipomas of the oral cavity: clinical findings, histological classification and proliferative activity of 46 cases. Int J Oral Maxillofac Surg. 2003; 32:49–53.
2. Goldblum JR, Weiss SW, Folpe AL. Enzinger and Weiss's Soft Tissue Tumors: 6th ed. Elsevier Saunders; 2013
3. de Visscher JG. Lipomas and fibrolipomas of the oral cavity. J Maxillofac Surg. 1982; 10:177–181
4. Akyol MU, Ozdek A, Sokmensuer C. Lipoma of the tongue. Otolaryngol Head Neck Surg 2000; 122: 461–462
5. Ayasaka N, Chino Jr T, Chino T, Antoh M, Kawakami T. Infiltrating lipoma of the mental region: report of a case. Br J Oral Maxillofac Surg. 1993; 31: 388–390
6. Malave DA, Ziccardi VB, Greco R, Patterson GT. Lipoma of the parotid gland: report of a case. J Oral Maxillofac Surg. 1994; 52:408–411
7. Debnath SC, Saikia A. Lipoma of the parotid gland extending from the superficial to the deep lobe: a rarity. Br J Oral Maxillofac Surg. 2010; 48:203–204.
8. Hatziotis JC. Lipoma of the oral cavity. Oral Surg Oral Med Oral Pathol. 1971;31:511–524
9. Byeong-Gi Park, Dong-Ju Choi, Jun-Woo Park, Jong-Sik Kim. Oral cavity lipoma: a case report J Korean Assoc Oral Maxillofac Surg. 2015;41:213-216
10. Das Gupta TK. Tumors and tumor-like conditions of the adipose tissue. Curr Probl Surg. 1970;7:3–60
11. Rajendran R, Sivapathasundharam B. Shafer's Textbook of Oral Pathology: 7th ed. India: Elsevier; 2012
12. Fletcher C, Unni K, Mertens F, (editors). Adipocytic tumors. World Health Organization classification of tumours: pathology and genetics of tumours of soft tissue and bone, Lyon, France: IARC Press; 2002, pp 9–46.
13. Horton JE. Lipomas of the tongue: report of a fibrolipoma. OralSurg Oral Med Oral Pathol 1968;25:914-8.

Address of Correspondence
Dr.Umamaheswari G
Post graduate student
Department of Oral Pathology and Microbiology
Indira Gandhi Institute of Dental Sciences
Sri Balaji Vidhyapeeth University
PondicherryIndia
+91-9655018009
vgumamaheswari@mail.com

Authors:
[1]Post graduate student, Department of Oral Pathology and Microbiology, Indira Gandhi Institute of Dental Sciences, Sri Balaji Vidhyapeeth University, Pondicherry

[2]Professor & Head, Department of Oral Pathology and Microbiology, Indira Gandhi Institute of Dental Sciences, Sri Balaji Vidhyapeeth University, Pondicherry

[3]Reader, Department of Oral Pathology and Microbiology, Indira Gandhi Institute of Dental Sciences, Sri Balaji Vidhyapeeth University, Pondicherry

[4]Post graduate Student, Department of Oral Pathology and Microbiology, Indira Gandhi Institute of Dental Sciences, Sri Balaji Vidhyapeeth University, Pondicherry

How to cite this article :

Umamaheswari.G, A. Santha Devy, Vidyalakshmi.S, Satheesh Kumar.K. Oral Lipoma - A Case Report. Journal of Scientific Dentistry, 2017;7(1):37-41

Source of Support : Nil, **Conflicts of Interest :** None declared