

Intra-oral lipoma – A Rare Entity

GAYATHRI S. RAO, LAXMIKANTH CHATRA, PRASHANTH SHENAI

ABSTRACT

Lipomas are common benign tumours but a rare intra-oral tumour representing 2.4% of all benign tumours of oral

cavity. We report here a case of fibrolipoma in a 60-years-old male patient.

Key Words: Fibrolipoma, Oral lipoma, Vestibule

INTRODUCTION

Lipomas are benign mesenchymal neoplasm composed of mature adipocytes, usually surrounded by a thin fibrous capsule [1].

They are best known as universal or ubiquitous tumour, due to its wide distribution in the human body and which is derived from mature fat cells. In the oral cavity they are relatively uncommon with a reported rate of 1/5000 [2], and comprising 2.4% of all benign tumours of oral cavity [3].

The first description of oral lipomas was made by Roux in 1848. He referred it as a 'yellow Epulis' [4]. Morphologically intra-oral lipomas can be classified as diffuse form affecting the deeper tissues, superficial form and encapsulated form [5]. Multiple head and neck lipomas have been observed in neurofibromatosis, Gardner syndrome, Ecephalo-Craniocutaneous lipomatosis, Multiple familial lipomatosis and Proteus syndrome, Cowden's syndrome, Multiple hamartoma syndrome and Dercum's disease [6,7,8].

It has been suggested that the oral lipomas are more common in males but fibrolipomas are more frequent in females, in contrast with the whole body where lipomas are twice as common in females as in males [1]. With respect to the site of occurrence of specifically fibrolipomas they are rarely seen in the vestibular area [1,8,9].

Here we report a case of fibrolipoma occurring in the upper posterior vestibule of a 60-years-old male.

CASE REPORT

A 60-years-old male patient visited the outpatient department with complaint of completely missing teeth. His medical history was non-contributory. On intra-oral examination, there were completely edentulous upper and lower ridges [Table/Fig-1]. Soft tissue examination revealed a single small soft

tissue growth on the upper right posterior vestibular area just opposite to the maxillary tuberosity area. The nodule / growth was 1cm in size with smooth and glossy surface with no color change.

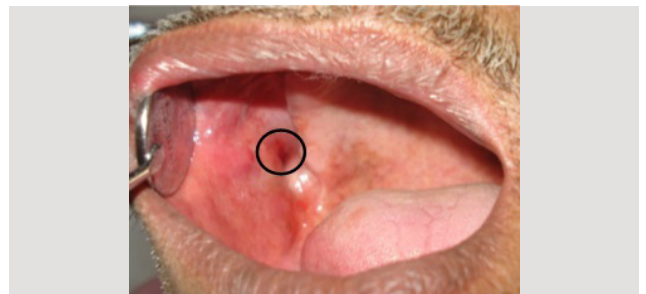
This growth on palpation was soft in consistency, pedunculated, freely mobile and non tender. Slip sign for the growth was positive. The pedunculated mass was completely excised [Table/Fig-2] and the specimen was send for histopathologic examination.

Histopathologic picture showed stratified squamous epithelium with connective tissue showing proliferation of fat cells. There was good amount of fibrous tissue also interspersed in it [Table/Fig-3].

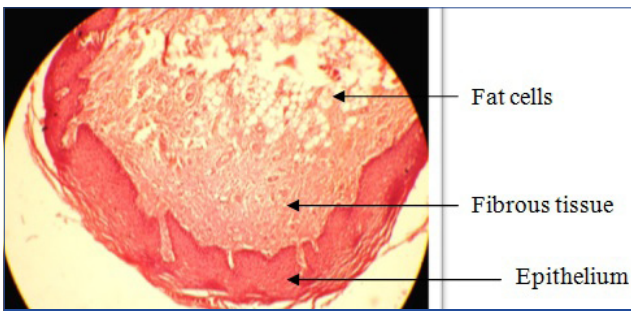
Thus, a final diagnosis of fibrolipoma was made. Patient was followed up for a period of 6 months; there was no sign of recurrence.



[Table/Fig-1]: Intra-oral examination showing edentulous ridges



[Table/Fig-2]: Buccal vestibule showing area of excision of lipoma



[Table/Fig-3]: H/P showing fat cells interspersed with fibrous tissue

DISCUSSION

Lipomas are common benign mesenchymal neoplasms that rarely occur in the oral cavity.

The aetiology of lipoma varies from differentiation of multipotent mesenchymal cells in fat tissue, cartilage, and bone to metaplasia of a pre-existing lipoma. Mesenchymal cells are modified by a systemic and local influences that range from local trauma to prolonged ischaemia [10].

The pathogenesis of fibrolipoma remains unclear. It has been thought as congenital to be caused by endocrinal imbalance, to be the product of a degenerated fibromatous tumour, or to arise from maturation of lipoblastomatosis [11].

Histologically oral lipomas are classified based on the histologic feature and growth patterns as simple lipoma, fibrolipoma, angioliipoma, infiltrating or intra-muscular lipoma, spindle cell lipoma, pleomorphic lipoma, osseoliipoma, chondroliipoma, myxoliipoma and sialiipoma [11].

Histologically lipoma is similar to that of normal adipose tissue but differ metabolically. Lipomas are not used as an energy source unlike the normal adipose tissue during starvation. The reason is because of activity of lipoprotein lipase which is markedly greater in lipomas compared to normal adipose tissue. This enzyme activity also contributed to the growth of tumour [8].

Despite the histological similarity to normal adipose tissue, lipomas have distinctive clonal chromosomal abnormalities like translocations involving 12q 13-15, locus interstitial deletions of 13q, and rearrangement involving 8q 11- 13 locus [12].

Considering the age, lipomas have wide age distribution from second decade to ninth decade of life [13] with peak incidence age of 40 to 50 years [2,14]. Present case was seen in a 60-years-old patient. It has been suggested that oral lipomas are common in males, while oral fibrolipomas are more frequent in females [13] in contrast with the whole body where lipomas are twice as common in females as in males [1]. Present case of fibrolipoma was seen in 60-years-old male patient.

With respect to the site various studies conducted reveal a rare occurrence of fibrolipoma in the vestibular region. Manor

E et al., [8]. conducted study on 58 cases of lipoma over a 20 years period from 1990 to 2010 and revealed only 2 cases of fibrolipoma in the vestibular region. Another study by Furlong MA et al., [9] on 125 cases of lipoma from 1970 to 2004 revealed zero cases of fibrolipoma in the vestibule. Present case of fibrolipoma was situated in the right upper posterior vestibule.

Lipomas and fibrolipomas are both usually well- circumscribed and thinly encapsulated that help in their differential diagnosis with herniated adipose tissue and fibrous polyp with fat entrapment respectively [1].

Clinically lipomas are slow growing, pedunculated/ sessile mass with yellowish hue. They are mobile, non tender, soft in consistency, smooth surfaced and compressible mass [1,14]. Characteristically positive slip sign can be elicited. However the present case did not show yellowish hue but a positive slip sign was elicited.

Definitive diagnosis can be arrived at based on histologic appearance. Differential diagnosis considered for present case was irritational fibroma. However, with the presence of slip sign and consistency of the lesion the former was ruled out. Other diagnoses that should be differentiated from lipoma include pyogenic granuloma, traumatic neuromas, epidermoid cyst, dermoid cyst [6,15].

The treatment of oral lipoma including all histologic variant is conservative local excision. Recurrence is rare [1,8]. No difference in prognosis is reported between the variants of oral lipomas except intra-muscular lipoma where in complete surgical excision may result in a high recurrence rate [8].

Regarding the proliferative activity that is examined by expression of PCNA (proliferating cell nuclear antigen) and Ki-67, Fregnani ER et al., [1] found that fibrolipomas have greater proliferating activity than that of classic lipomas, but no differences in clinical behavior was noticed after surgical treatment like absence of recurrence.

CONCLUSION

Oral lipomas are relatively uncommon tumours predominantly affecting buccal mucosa of fourth to sixth decade. The treatment remains conservative surgical excision irrespective of histopathologic variant. Fibrolipoma occurring in one of the rare site; buccal vestibule of a 60 year male patient is described.

REFERENCES

- [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(1):49-53.
- [2] Rajendran R. Benign and malignant tumours of the oral cavity. In: Rajendran, Sivapathasundharam B, editor. *Shafer's textbook of oral pathology*, 5th ed. Noida: Elsevier. 2006. p.194-95.

- [3] Bataineh AB, Mansour MJ, Abalkhail A. Oral infiltrating lipomas. *Br J Oral Maxillofac Surg.* 1996; 34(6):520-23.
- [4] Roux M. On exostosis: there character. *Am J Dent Sc.* 1848; 9:133-34.
- [5] Rajendran R. Benign and malignant tumours of the oral cavity. In: Rajendran R, Sivapathasundharam B, editor. *Shafer's textbook of oral pathology*, 6th ed. *Noida: Elsevier.* 2009. p.137.
- [6] Sivapathasundharam B, Krishnan PA. Oral lipoma: report of a case. *JIAOMR.* 2001; 12(3):92-5.
- [7] Sekar B, Augustine D, Murali S. Lipoma, a rare intra-oral tumour – a case report with review of literature. *OMPJ* 2011; 2(2):174-76.
- [8] Manor E, Sion -Vardy N, Joshua BZ, Bodner L. Oral lipoma: analysis of 58 new cases and review of the literature. *Annals of diagnostic pathology.* 2011; 15:257-261.
- [9] Furlong MA, Fanburg -Smith JC, Childers ELB. Lipoma of the oral and maxillofacial region: site and sub-classification of 125 cases. *Oral Surg Oral Med Oral Pathol, Oral Radiol Endod.* 2004; 98:441-50.
- [10] Castilho RM, Squarize CH, Nunes FD, Pinto Junior DS. Osteolipoma: a rare lesion in the oral cavity. *Br J Oral Maxillofac Surg.* 2004; 42(4):363-64.
- [11] Epivatianos A, Markopoulos AK, papanayotou P. Benign tumours of adipose tissue of the oral cavity: a clinicopathologic study of 13 cases. *J Oral Maxillofac Surg.* 2000; 58(10):1113-18.
- [12] Benign lipomatous tumours. In: enxinger FW, Weiss SW, editor. *Soft tissue tumours*, 4th ed. *St.Louis: Mosby.* 2001. p. 574-80.
- [13] Studart – Soares EC, Gurgel- Costa FW, Bitu- Sousa F, Alves APNN, Osterne RLVO. Oral lipomas in a Brazilian population: a 10 year study and analysis of 450 cases reported in the literature. *Med Oral Patol Oral Cir Buccal.* 2010 ;15(5):e691-6
- [14] Alexander, Rapisdis D. lipoma of oral cavity. *Int J Oral Surg.* 1982; 11:30-35.
- [15] Aadoh AA, Nimkur TL, Manasseh AN, Echejoh GO. Buccal soft tissue lipoma in an adult Nigerian: a case report and literature review. *Journal of medical case report.* 2008; 2:382-85.

AUTHOR(S):

1. Dr. Gayathri S. Rao
2. Dr. Laxmikanth Chatra
3. Dr. Prashanth Shenai

PARTICULARS OF CONTRIBUTORS:

1. Assistant Professor, Department of Oral Medicine and Radiology, S.D.M College of Dental Sciences and Hospital, Dharwad, Karnataka, India.
2. Professor and Head, Department of Oral Medicine and Radiology, Yenepoya Dental College, Mangalore, India.
3. Professor, Department of Oral Medicine and Radiology, Yenepoya Dental College, Mangalore, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Gayathri S. Rao,
Assistant Professor, Department of Oral Medicine and Radiology, S.D.M college of Dental Sciences and Hospital, Dharwad, Karnataka, India.
Phone: +919241545973, Fax: +9108362467612
E-mail: doc.gayathri@gmail.com

FINANCIAL OR OTHER COMPETING INTERESTS:

None.

Date of Submission: **Feb 12, 2013**
Date of Peer Review: **May 07, 2013**
Date of Acceptance: **Aug 18, 2013**
Date of Publishing: **Aug 30, 2013**