

Lipoma Of The Palate - A Diagnostic Conundrum: A Case Report

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Abstract:

Lipomas are very common benign soft tissue tumors mostly found on the trunk and proximal portions of the extremities but are rarely found in the oral cavity, comprising only 0.1% to 4% of all benign tumors in the oral cavity. This article describes a case of 27-year-old woman presenting a rare case of lipoma of palate which was difficult to diagnose and was managed by surgical excision under general anesthesia. A follow-up of 1 year was uneventful with no recurrence. Lipomas are infrequently found in the oral cavity, of which buccal mucosa is the common site of appearance but in this case, it was found in palate, a rare entity which needs to be considered in the differential diagnosis of swellings occurring on the palate. Accurate diagnosis provides reassurance of its benign nature, may require treatment planning or surgical removal if symptomatic, has low recurrence rate and requires patient education for informed decision making.

Key Word: Lipoma, Tumor, Palate, Swelling

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I. Introduction

Lipoma represents the most common benign tumour composed of mature adipose cells that are commonly seen on the trunk and proximal portions of the extremities however, lipomas of the oral and maxillofacial region are uncommon.^{1,2,3,4,5} The first person to describe soft tissue lipoma as yellowish epulis was Roux. and in 1880 the first case of intraosseous lipoma which is rarely seen in the oral and maxillofacial region was presented by Cornil and Ranvier.

About 15%-20% of soft tissue lipomas occur in the head and neck area, of which only 1%-4% are detected intraorally.^{6,7} Intraoral lipomas (IOL) are slow-growing benign neoplasms presenting as an asymptomatic, smooth-surfaced, nodular, pedunculated or sessile, and yellowish mass. Site of predilection of IOL is buccal mucosa as it is composed of adipose tissue and accounts for 50% of all the cases.^{8,9,10} IOL also develop in lips, tongue, floor of mouth, vestibule, retromolar pad whereas palate is an uncommon location. Size of IOL is usually less than 2cm and the etiology is not clearly understood.¹¹ But has been reported that mechanical factors, endocrine system, inflammation, obesity, chromosomal abnormalities, radiation, trauma, mucosal infections, and chronic irritation can lead to the occurrence of oral lipoma.^{12,13}

Palpatory findings reveal a soft, nontender, and mobile mass expanding slowly, and may take several months or years for progression.¹⁴ The gold standard for definitive diagnosis of lipomas is the routine Haematoxylin & Eosin stain. The adipose cells in a lipoma are usually much larger than in normal adipose tissue and may be up to 200 microns in size.¹⁵ Histologically, simple lipomas constitute 80% of all lipomas, whereas the remaining 20% include other types such as fibrolipomas, angioliipomas, intramuscular lipomas, pleomorphic lipomas, spindle cell lipomas, sialoliipomas, myxoid lipomas, and atypical lipomas.^{16,17}

II. Case Description

A 27 years female patient reported to the Dept of Oral Medicine & Radiology with the chief complaint of swelling in the palate since 3 months. On history, the swelling was small to begin with and gradually increased to the present size. No associated bleeding or pus discharge or pain was noted with the swelling. The patient complained of pain in the teeth adjacent to the swelling for which she consulted a local dentist and was prescribed antibiotics twice which did not provide any relief. On intraoral examination a grossly decayed maxillary left first molar was present and a localized swelling measuring about 5x2cm was present on the left side of the palate extending from the mesial surface of the first premolar to the anterior border of the soft palate

antero posteriorly and mediolaterally from the mid palatine raphe to the attached gingiva in relation to teeth 23 to 27 region. The mucosa over the swelling had a yellowish hue. On palpation, the swelling was smooth surfaced, nodular, soft in consistency and nontender. Also a similar swelling measuring about 2x2 cm was present in the left buccal mucosa extending from the lateral surface of maxillary tuberosity to the retromolar area superoinferiorly. Further investigation was carried out like Intraoral periapical radiograph (IOPA) with carious tooth and Ultrasonography (USG) of swelling. IOPA revealed apical periodontitis with root stump and on USG there was an evidence of anechoic cystic lesion with the impression of abscess, lipoma or cyst. Also incisional biopsy gave an impression of lipoma. So we arrived at a final diagnosis of lipoma of the palate and the patient was referred to Oral surgery department for treatment. Management of the present case included surgical excision under general anaesthesia and the patient was followed for 1 year with uneventful healing and no recurrence.



Fig 1- Patient Photograph



Fig 2- photograph showing Lipoma on the palate



Fig 3- photograph showing lipoma on the left buccal mucosa

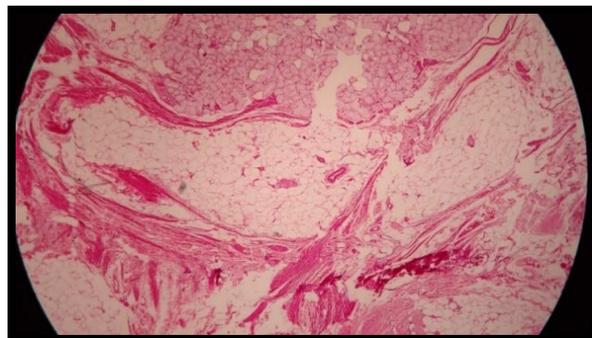


Fig 4- Histological feature showing round to oval mature fat cells interspersed with connective tissue



Fig 5- Follow up after 1 week of excision



Fig 6- Intraoral periapical radiograph irt 26

III. Discussion

Lipoma is a benign tumour of fat that can occur in any part of the body but is rare in the oral cavity. The clinical features of intraoral lipoma vary according to the location of the lesion. Buccal mucosa is the most common location comprising 50 % of all cases, followed by the tongue, lip, floor of the mouth and buccal vestibule, retromolar area, gingiva, palate and others. According to literature lipomas in the oral cavity exhibit a mean diameter of 2cm.^{18,19} Highest site predilection is buccal mucosa because of availability of adipose tissue and lowest is hard palate and gingiva.^{20,21,22,23,24} Some authors reported no gender difference, but oral and maxillofacial lipomas are more common in men.^{25,26} When considering only IOL, this benign neoplasm affects more females than males with a female:male ratio of 1.8:1.^{27,28,29,30,31,32,33} In the present case, lipoma was seen in a 27 year old female on the hard palate which is an uncommon location. There have been reports that oral lipoma can occur in all age groups but are most often seen in patients ranging in age from 40 to 60 years.^{34,35,36,37}

Literature search shows diverse reports about the association between lipoma and sex. The incidence of oral lipoma has been reported to be identical in males and females, or male prevalence has been emphasized or vice versa.³⁸ It was difficult to diagnose the present case due to the uncommon location. Provisional diagnosis of palatal abscess was considered as there was a deep carious lesion and pain in relation to the swelling. Periodontal abscess, Pleomorphic adenoma, lipoma were included in the list of differential diagnosis. Periodontal abscess was ruled out as there was a carious lesion involving the pulp, next pleomorphic adenoma was also excluded as there were no signs and symptoms of salivary gland involvement and lipoma was considered in differential diagnosis as the swelling did not show any signs of inflammation.^{39,40,41} Lipoma occurring superficially in the head and neck region can be diagnosed clinically whereas deep lipomas and IOL are hard to diagnose clinically. Distinguishing IOL and adjacent tissues is hard especially when the tumour is adherent to muscles and salivary glands.⁴² In this case also it was difficult to distinguish from palatal abscess as there was a grossly decayed tooth adjacent to the swelling. Investigations advised were Intraoral periapical radiograph with carious tooth which revealed pulpal involvement and periapical abscess but the swelling on the palate was not related to this carious tooth. Consequently, Ultrasonography was advised which gave the impression of either cyst, lipoma or abscess. Subsequently incisional biopsy was advised which confirmed the lesion to be lipoma. Hence the final diagnosis was Lipoma.

Complete surgical excision is the main stay treatment of lipoma with no recurrence after adequate excision. Other treatment modalities include Injectable steroids which can cause the atrophy of the adipose tissue and reduce the size of the tumour. A monthly injection of 1:1 mixture of lidocaine and triamcinolone acetonide is recommended to be administered to the centre of the lesion.⁴³ Management of the present case included surgical excision under general anaesthesia and the patient was followed for 1 year with uneventful healing and no recurrence.

IV. Conclusion

Intraoral lipoma is a seldom seen medical condition that should be considered when evaluating oral cavity swellings as part of the differential diagnosis. A lipoma of the palate is clinically significant because it should be considered in the differential diagnosis of oral cavity swellings, provides reassurance of its benign nature, may require treatment planning or surgical removal if symptomatic, has low recurrence rate and requires patient education for informed decision making.

Authors' contribution Dr Kajal V Gokak, Dr Daneshwari Koshti, Dr Vaishali Keluskar and Dr Snehalata Narvekar equally contributed to this article.

Conflicts of Interests: None

References

- [1]. Neville BW, Damm DD, Allen CM, Bouquot JE (2009) Oral And Maxillofacial Pathology, 3rd Edn. Saunders, Elsevier, Pp 523–524.
- [2]. Roux M. On Exostoses: Their Character. Am J Dent Sci. 1848;9:133-134
- [3]. Barker GR, Sloan P. Intraosseous Lipomas: Clinical Features Of A Mandibular Case With Possible Etiology. Br J Oral Maxillofac Surg. 1986;24:459-463.
- [4]. Buri C N, Krasí C D, Vi snji C M, Kati C V. Intraosseous Mandibular Lipoma: A Case Report And Review Of The Literature. J Oral Maxillofac Surg Nov 2001;59(11):1367–71.
- [5]. Basheer S, Abraham J, Shameena PM, Balan A. Intraosseous Lipoma Of Mandible Presenting As A Swelling. J Oral Maxillofac Pathol. 2013;17:126-128
- [6]. Mehendiratta M, Jain K, Kumra M, Manjunatha BS. Lipoma Of Mandibular Buccal Vestibule: A Case With Histopathological Literature Review. BMJ Case Rep. 2016;2016:Bcr20162
- [7]. Furlong MA, Fanburg-Smith JC, Childers ELB. Lipoma Of The Oral And Maxillofacial Region: Site And Subclassification Of 125 Cases. Oral Surg Oral Med Oral Pathol Oral Radiol Endod Oct 2004;98(4):441–50
- [8]. Manor E, Sion-Vardy N, Joshua BZ, Bodner L. Oral Lipoma: Analysis Of 58 New Cases And Review Of The Literature. Ann Diagn Pathol. 2011;15:257-261.
- [9]. Fregnami ER, Pires FR, Falzoni R, Lopes MA, Vargas PA (2002) Lipomas Of The Oral Cavity: Clinical Findings, Histological Classification And Proliferative Activity Of 46 Cases. Int J Oral Maxillofac Surg 32:49–53

- [10]. Furlong MA, Fanburg-Smith JC, Childers EL. Lipoma Of The Oral And Maxillofacial Region: Site And Subclassification Of 125 Cases. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2004;98:441-450.
- [11]. Manor E, Sion-Vardy N, Joshua BZ, Bodner L. Oral Lipoma: Analysis Of 58 New Cases And Review Of The Literature. *Ann Diagn Pathol.* 2011;15:257-261.
- [12]. Cocca S, Viviano M, Parrini S. Unusual Complications Caused By Lipoma Of The Tongue. *J Kor Assoc Oral Maxillofac Surg.* 2017;43:S6-S8.
- [13]. Furlong MA, Fanburg-Smith JC, Childers EL. Lipoma Of The Oral And Maxillofacial Region: Site And Subclassification Of 125 Cases. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2004;98:441-450
- [14]. Zhong L, Zhao S, Chen G, Ping F. Ultrasonographic Appearance Of Lipoma In The Oral And Maxillofacial Region. *Oral Surgery, Oral Medicine, Oral Pathology. Oral Radiol. Endodontol.* Dec 2004;98(6):738-40
- [15]. Kumar P, Naraniya A (2012) Intraoral Fibrolipoma: A Rare Histological Variant. *Indian J Oral Sci*3: 39-41
- [16]. (Cavezzi O, Guerra De Aguiar E, França Sartori J, Lima FO. K Spindle Cell Lipoma Of The Tongue: A Case Report Of An Unusual Occurrence. *J Oral Maxillofac Pathol* 2013;17 (1):148.)
- [17]. Fregnani ER, Pires FR, Falzoni R, Lopes MA, Vargas PA (2002) Lipomas Of The Oral Cavity: Clinical Findings, Histological Classification And Proliferative Activity Of 46 Cases. *Int J Oral Maxillofac Surg* 32:49-53
- [18]. E. R. Fregnani, F. R. Pires, R. Falzoni, M. A. Lopes, And P. A. Vargas, "Lipomas Of The Oral Cavity: Clinical Findings, Histological Classification And Proliferative Activity Of 46 Cases," *International Journal Of Oral And Maxillofacial Surgery*, Vol. 32, No. 1, Pp. 49-53, 2003.
- [19]. M. A. Furlong, J. C. Fanburg-Smith, And E. L. B. Childers, "Lipoma Of The Oral And Maxillofacial Region: Site And Subclassification Of 125 Cases," *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology And Endodontology*, Vol. 98, No. 4, Pp. 441-450, 2004
- [20]. De Freitas MA, Freitas VS, De Lima AA, Pereira FB Jr, Dos Santos JN (2009) Intraoral Lipomas; A Study Of 26 Cases In A Brazilian Population. *Quintessence Int* 40:79-85
- [21]. Studart-Soares EC, Costa FW, Sousa FB, Alves AP, Osterne RL (2010) Oral Lipomas In A Brazilian Population: A 10-Year Study And Analysis Of 450 Cases Reported In The Literature. *Med Oral Patol Oral Cir Bucal* 15(5):E691-E696
- [22]. Juliase LE, Nonaka CF, Pinto LP, Freitas Rde A, Miguel MC (2010) Lipomas Of The Oral Cavity: Clinical And Histopathologic Study Of 41 Cases In A Brazilian Population. *Eur Arch Otorhinolaryngol* 267.
- [23]. Said-Al-Naief N, Zahurullah FR, Sciubba JJ (2001) Oral Spindle Cell Lipoma. *Ann Diagn Pathol* 5(4):207-215
- [24]. Manor E, Sion-Vardy N, Joshua BZ, Bodner L (2011) Oral Lipoma: Analysis Of 58 New Cases And Review Of The Literature. *Ann Diagn Pathol* 15(4):257-261
- [25]. Furlong MA, Fanburg-Smith JC, Childers EL. Lipoma Of The Oral And Maxillofacial Region: Site And Subclassification Of 125 Cases. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2004 Oct; 98(4): 441-50. Pubmed PMID: 15472660.
- [26]. Avelar RL, Carvalho RWF, Falcão PGCB, Antunes AA, Andrade ESS. Lipomas Da Região Oral E Maxilofacial: Estudo Retrospectivo De 16 Anos No Brasil. *Rev Port Estomatol Cir Maxilofac.* 2008 Oct-Dec; 49: 207-11.
- [27]. 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 Feb; 32(1): 49-53. Pubmed PMID: 12653233.
- [28]. Nielsen GP, Mandahl N. Lipoma. In: Fletcher CDM, Unni KK, Mertens F, Editors. *World Health Organization Classification Of Tumours. Pathology And Genetics Of Tumours Of Soft Tissue And Bone.* IARC Press: Lyon; 2002. P. 20-2.
- [29]. Epivations A, Markopoulos AK, Papayanatu P. Benign Tumors Of Adipose Tissue Of The Oral Cavity: A Clinicopathologic Study Of 13 Cases. *J Oral Maxillofac Surg.* 2000 Oct; 58(10): 1113-7. Pubmed PMID: 11021705.
- [30]. Bandéca MC, De Pádua JM, Nadalin MR, Ozório JE, Silva-Sousa YT, Da Cruz Perez DE. Oral Soft Tissue Lipomas: A Case Series. *J Can Dent Assoc.* 2007 Jun; 73(5): 431-4. Pubmed PMID: 17555654.
- [31]. Juliase LE, Nonaka CF, Pinto LP, De Freitas AR, Miguel MC. Lipomas Of The Oral Cavity: Clinical And Histopathologic Study Of 41 Cases In Brazilian Population. *Eur Arch Otorhinolaryngol.* 2010 Mar; 267(3): 459-65. Pubmed PMID: 19562364.
- [32]. Studart-Soares EC, Costa FW, Sousa FB, Alves AP, Osterne RL. Oral Lipomas In A Brazilian Population: A 10-Year Study And Analysis Of 450 Cases Reported In The Literature. *Med Oral Patol Oral Cir Bucal.* 2010 Sep 1; 15(5): E691-6. Pubmed PMID: 20383107.
- [33]. De Freitas MA, Freitas VS, De Lima AA, Pereira Jr. FB, Dos Santos JN. Intraoral Lipomas: A Study Of 26 Cases In A Brazilian Population. *Quintessence Int.* 2009 Jan; 40(1): 79-85. Pubmed PMID: 19159027
- [34]. E. R. Fregnani, F. R. Pires, R. Falzoni, M. A. Lopes, And P. A. Vargas, "Lipomas Of The Oral Cavity: Clinical Findings, Histological Classification And Proliferative Activity Of 46 Cases," *International Journal Of Oral And Maxillofacial Surgery*, Vol. 32, No. 1, Pp. 49-53, 2003.
- [35]. M. A. Furlong, J. C. Fanburg-Smith, And E. L. B. Childers, "Lipoma Of The Oral And Maxillofacial Region: Site And Subclassification Of 125 Cases," *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology And Endodontology*, Vol. 98, No. 4, Pp. 441-450, 2004.
- [36]. T. Naruse, S. Yanamoto, S.-I. Yamada Et Al., "Lipomas Of The Oral Cavity: Clinicopathological And Immunohistochemical Study Of 24 Cases And Review Of The Literature," *Indian Journal Of Otolaryngology And Head & Neck Surgery*, Vol. 67, Supplement 1, Pp. S67-S73, 2015.
- [37]. E. Manor, N. Sion-Vardy, B. Z. Joshua, And L. Bodner, "Oral Lipoma: Analysis Of 58 New Cases And Review Of The Literature," *Annals Of Diagnostic Pathology*, Vol. 15, No. 4, Pp. 257-261, 2011
- [38]. Karakosta P, Matiakis A, Anagnostou E, Kolototronis A. Oral Lipoma Located At The Left Lower Vestibule- Report Of A Case And A Brief Review Of The Literature. *Balkan J Of Dent Med.* 2018;22:49-52.
- [39]. Bandeca MC, De Padua JM, Nadalin MR, Ozorio JE, Silva-Sousa YT, Cruz Perez DE. Oral Soft Tissue Lipomas: A Case Series. *J Can Dent Assoc* 2007; 73(5): 431-4.
- [40]. Adoga AA, Nimkur TL, Manasseh AN, Echejoh GO. Buccal Soft Tissue Lipoma In An Adult Nigerian: A Case Report And Literature Review. *J Med Case Reports* 2008; 2: 382
- [41]. Lawoyin JO, Akande OO, Kolude B, Agbaje JO. Lipoma Of The Oral Cavity: Clinicopathological Review Of Seven Cases From Ibadan. *Niger J Med* 2001; 10(4):189-91.
- [42]. Singh B. Difficulties In Diagnosing Lesions In The Floor Of The Mouth – Report Of Two Rare Cases, Vol. 33; 2004. P. 5. 4
- [43]. Surej Kumar LK, Kurien NM, Raghavan VB, Varun Menon P, Khalam SA. Lipoma: A Case Report. *Case Rep Med.* 2014;2014:480130