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Case Report

FIBROLIPOMA OF BUCCAL MUCOSA: A RARE ENTITY

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ABSTRACT:

Lipoma is a common obiquitious benign mesenchymal tumour of adipose tissue, but in the oral cavity and oropharynx it is relatively uncommon. Intraoral Lipomas represent about 1 to 5% of all neoplasms of the oral cavity. The benign nature of lipomas is supported by its bland pathologic appearance and absence of recurrence following complete removal. With a wide array of lesions to be considered in the differential diagnosis, clinicians must be aware of such rare lesions to treat the patient appropriately. Here we report a rare case of lipoma presenting on the buccal mucosa.

Key words: Benign mesenchymal tumor, Lipoma, Buccal mucosa.

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This article may be cited as: Naik R, K Nithin, B. R Mujib A, Kumar RK. Fibrolipoma of Buccal Mucosa: A Rare Entity. J Adv Med Dent Scie Res 2015;3(2):97-100.

NTRODUCTION

Although a common benign neoplasm occuring on trunk, shoulders, neck, and axilla, lipomas are rare in oral cavity. The most frequent site is buccal mucosa, followed by tongue, floor of mouth, buccal sulcus, palate, lips and gingiva. Lipoma accounts for 4–5% of all benign tumors in the body. Oral lipomas compromise 2.2% of all lipomas and 2.4% of all benign tumors of oral cavity.^[1] The etiology of lipoma is uncertain, but they appear to be more common in obese people.^[2] Most of the lesions are developmental anomalies. Those which occur in the maxillofacial region usually arise late in life, presumed to be neoplasm of adipocyte. Clinically, oral lipomas are slow-growing submucosal tumors presenting in the form of well-circumscribed, mobile, painless, sometimes fluctuant yellowish-colored nodules.^[3]This rare entity should be considered in differential diagnosis to differentiate it from other mesenchymal tumors of oral cavity as it plays a major role in treatment plan and diagnosis. This article presents an unusual case of large lipoma on the buccal mucosa.

CASE REPORT

A 64 year old male patient reported with the chief complaint of growth in relation to the right buccal mucosa since 1 year. The patient gave a history of pain due to trauma from 47 for the past 15 days. Intraorally a solitary lesion roughly oval in shape measuring approximately 2x2 cms in greatest dimension i.r.t 48 and 47 region on the right buccal mucosa along the plane of occlusion was observed (figure 1).



Figure 1: Clinical appearance of the lesion on the right buccal mucosa along the occlusal plane.

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It was of the same colour as that of the surrounding normal mucosa with an area of frictional keratosis due to trauma from 47. On palpation it was non tender, firm in consistency and was movable. The right submandibular lymph nodes were palpable measuring 1x1 cms in size, firm in consistency, non tender and mobile. The growth was excised and sent for histopathological examination. Haematoxylin and Eosin staining was performed and histopathology revealed the presence of a stratified squamous parakeratinized epithelium with abnormal proliferation of mature adipocytes (figure 2).



Figure 2: Histopathological picture showing stratified squamous parakeratinized epithelium, underlying stroma revealing abnormal proliferation of mature adipocytes.

The cells were large with clear cytoplasm and a flatenned dark nucleus to the periphery. Thin septa of fibrous tissue was seen between the closely packed normal looking fat cells (Figure 3).



Figure 3: Adipose cells arranged in lobular pattern separated by fibrous septa.

At the borders, lesion was surrounded by a thin fibrous capsule. The above features were consistent with the diagnosis of Lipoma. The entire lesion was excised, no recurrence has been observed since 6 months and the patient is under follow up.

DISCUSSION

The first description of oral lipomas was given by Roux (1848) in a review of alveolar mass; he referred to it as a "yellow epulis". Lipomas are benign, slow growing neoplasm composed of mature fat cells. The pathogenesis of lipoma is uncertain, metabolism of lipoma is completely independent of the normal body fat. It is however not dependent on the calorie intake, although normal body fat may be lost.^[2] Thus a person on a starvation diet will lose fat from normal fat depots in the body, but not from lipoma. Furthermore, fatty acid precursors are incorporated at a more rapid rate into lipoma fat than into normal fat while lipoprotein lipase activity is reduced. The etiology varies from the differentiation of multipotent mesenchymal cells in fat tissue, cartilage, and bone to metaplasia of a pre-existing lipoma. Mesenchymal cells are modified by systemic and local influences that range from local trauma to prolonged ischaemia. Other etiologies postulated are hormone alteration, metaphase of muscles cells, embryonic cell nest in origin.^[1] Most lipomas have chromosomal aberrations such as translocation involving 12q13-15, interstitial deletion of 13q and rearrangement involving 6p21–23. Chop gene is involved in adipocytic differentiation.^[4]The most common locations of lipoma in the oral cavity have been reported to be in the buccal mucosa, a region abundant in fatty tissue.^[5] When superficial, there is a yellow surface discoloration. The lesion may be pedunculated or sessile and occasional cases show surface bosselation.^[6] Depending upon the site, lipomas are categorized into superficial, deep, and periosteal.^[1]The variants of lipoma include angiolipoma, chondroid lipoma, myolipoma, spindle hamartomatous lesions; diffuse cell lipoma; hibernoma.^[7] lipomatous proliferations and Clinically, they present as soft and compressible masses with doughy consistency which are well defined clinically and radiologically. In some cases, they can present as fluctuant nodules.[8]

Histopathologically lipoma composed is predominantly of mature adipocytes possibly admixed with collagenic streaks, and is often well demarcated from the surrounding connective tissue. A thin fibrous capsule may be seen and a distinct lobular pattern may be present.^[4] Because of the histologic similarity between normal adipose tissue and lipoma, accurate clinical and surgical

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information is very important in making a definitive diagnosis, but the cells vary slightly in size and shape and are somewhat larger, measuring up to 200 mm in diameter.^[8] Subcutaneous lipomas are usually thinly encapsulated and have distinct lobular patterns. Deep-seated lipomas have a more irregular configuration, largely depending on the site of origin. All are well vascularised, but under normal conditions, the vascular network is compressed by the distended lipocytes and is not clearly discernible.^[5] Lipoma exhibits various histological subtypes (Table1),

Most of these variants do not affect the prognosis ^[2] but their histopathological features may overlap with other lesions. The most frequently seen subtype is simple lipoma followed by fibrolipoma.^[9] Infiltrating lipoma is an uncommon mesenchymal neoplasm that tends to recur after excision.^[10] No case of infiltrating lipoma undergoing malignant changes has been reported in the literature.^[11] On occasions, lipomas of the buccal mucosa cannot be distinguished from a herniated buccal fat pad, except by the lack of a history of sudden onset after trauma.^[1] Histopathologically they lack encapsulation and are not well circumscribed, which help in differentiating it from lipoma. In view of their clinical features, other tumors and cysts like fibroma, pleomorphic adenoma, mucoepidermoid carcinoma,^[12] liposarcoma,^[13] oral dermoid and epidermoid cysts carcinoma,^[12] and oral lymphoepithelial cysts must also be considered in the differential diagnosis of oral lipomas.^[14]

Oral lymphoepithelial cysts lesions are usually small at the time of diagnosis. Also, most oral lymphoepithelial cysts are found on the floor of the mouth, soft palate and mucosa of the pharyngeal tonsil,^[15]which are uncommon sites for oral lipomas. Oral dermoid and epidermoid cysts also present as submucosal nodules and, typically, occur on the midline of the floor of the mouth.^[16] However, oral dermoid and epidermoid cysts can occur in other locations of oral mucosa. Because an oral lipoma can occasionally present as a deep nodule with normal surface colour, salivary gland tumors and benign mesenchymal neoplasms should also be included in diagnosis.^[12] Liposarcoma is differential the important in the differential diagnosis, because well differentiated liposarcoma often contains many areas of lipomatous tissue. Spindle cell and pleomorphic types of lipoma must be distinguished from liposarcoma.^[12] The ability of infiltrating lipoma to infiltrate adjacent muscle and recur locally may lead to false clinical diagnosis such as liposarcoma. These sarcomas are characterized by areas of lipoblastic proliferation, myxoid differentiation, cellular pleomorphism, increased vasularity, and mitosis, features that are not present in infiltrating lipoma.^[1] The treatment of oral lipomas, including all the histological variants is complete surgical excision. No recurrence has been observed.^[17] Although the growth of oral lipomas is usually limited, they can reach great dimensions, interfering with speech and mastication and reinforcing the need for excision.

Fibrolipoma	Lipomas with predominant fibrous tissue between fat cells
Infiltrating lipoma	"Infiltrate" into surrounding tissues, producing thin extensions of adipose
	tissue radiating from central tumor mass
Intramuscular lipoma	Infiltrating variant infiltrating into the striated muscle
Lipomatosis	Extensive involvement of a wide area of fibrovascular or stromal tissues
	by adipose tissue
Angiolipoma	Exhibits number of small vascular channels
Spindle cell lipoma	Uniform spindle shaped cells interspersed among normal adipocytes
Myolipoma	If spindle cells are of smooth muscle origin
Myxolipoma	Lipomas with myxoid background stroma
Perineural lipoma	Lipomas associated with nerve tissue
Chondroid and	Lipomas showing chondroid or osseous metaplasia
osteo lipomas	
Adenolipoma	Ductal and tubular adnexal structures scattered throughout the fat lobules
Pleomorphic lipoma	When spindle cells appear somewhat dysplastic or mixed with
	pleomorphic giant cells with or without hyperchromatic enlarged nuclei.

Table 1: Varia	nts of Lipoma ^[4]
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CONCLUSION

This rare entity in oral cavity should always be considered in differential diagnosis while dealing with oral soft tissue tumors. A painless, soft slow growing tumour, either sessile or pedunculated with a smooth surface and well defined margins should be given a benefit of doubt of being a lipoma. Chances of malignant transformation are rare, yet there is always a possibility. Hence promt treatment in the form of surgical excision followed by a histopathological diagnosis is warranted.

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Acknowledgement: Our sincere thanks to Mr.Puttapa Kashipur, Senior technician, Bapuji Dental College and Hospital, Davangere, Karnataka for helping us with processing and staining.

Source of Support: Nil

Conflict of interest: None declared

Journal of Advanced Medical and Dental Sciences Research [Vol. 3] Issue 2| April - June 2015