

FIBROLIPOMA OF THE BUCCAL MUCOSA- A RARE ENTITY

INTRODUCTION:

Although a common benign neoplasm occurring 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, dome shaped, mobile, painless, sometimes fluctuant yellowish-colored nodules. Histopathologically lipoma is composed 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 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 as follows:

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;

31 **Lipomatosis** – extensive involvement of a wide area of fibrovascular or stromal tissues by
32 adipose tissue;

33 **Angiolipoma** – exhibits number of small vascular channels;

34 **Spindle cell lipoma** – uniform spindle shaped cells interspersed among normal adipocytes;

35 **Myolipoma** – if spindle cells are of smooth muscle origin;

36 **Myxolipoma** – lipomas with myxoid background stroma;

37 **Perineural lipoma** – lipomas associated with nerve tissue;

38 **Chondroid and osteo lipomas** – lipomas showing chondroid or osseous metaplasia;

39 **Adenolipoma** – ductal and tubular adnexal structures scattered throughout the fat lobules;

40 **Pleomorphic lipoma** – when spindle cells appear somewhat dysplastic or mixed with
41 pleomorphic giant cells with or without hyperchromatic enlarged nuclei [3]. This rare entity
42 should be considered in differential diagnosis to differentiate it from other mesenchymal
43 tumors of oral cavity as it plays a major role in treatment plan and diagnosis. This article
44 presents an unusual case of lipoma on the buccal mucosa.

45 **CASE REPORT:**

46 **Annamalai of aged 67 male** **Sixty-seven-years-old male patient** reported with a chief
47 complaint of sensitivity in left upper back teeth region of the jaw for past 6 months. Patient
48 was apparently normal before two months. History of sensitivity prevailed for the past 6
49 months. Sensitivity is mild, aggravates on eating cold foods and drinks. The sensitivity was
50 relieved on its own after a while.

51 Intra oral examination revealed a solitary well-defined exophytic growth present in the left
52 buccal mucosa measuring 2cm x 2cm in size. (Fig 1 and 2). Extends superio-inferiorly 2cm
53 from the upper and lower labial vestibule. Anteriorly from 1.5cm from the left commissure of
54 the lip to 1cm before the left commissure of the lip. Overlying appears pale and pigmented.
55 Surface over the growth is smooth.

56 All the inspectory findings including number, size, site, shape, surface and extensions were
57 confirmed. Growth is firm in consistency and pedunculated, non-tender and attached to the
58 underlying structures.

Considering the history and on the examination of the lesion Provisional diagnosis of Irritational fibroma was made and patient was investigated further. Giant cell fibroma, pyogenic granuloma, Neurofibroma, Peripheral Giant cell Granuloma were considered as the differential diagnosis.



Figure 1 and 2

An excisional biopsy of the lesion was done (Figure 3 and 4) and the specimen was processed histologically with haematoxylin and eosin stain. The histological diagnosis reveals the following macroscopic and microscopic features:

MACROSCOPIC FEATURE:

A single soft tissue bit measuring 0.68 x 0.5cm of size, greyish white in colour, spherical in shape with smooth surface, soft in consistency was submitted. The entire specimen was processed for histopathological examination.

MICROSCOPIC FEATURES:

The histopathology of the submitted soft tissue specimen showed surface epithelium and the underlying connective tissue.

The epithelium is of parakeratotic stratified squamous epithelium with absence of rete process. There is no evidence of any dysplastic features. The underlying fibrous connective tissue shows dense collagen fibres arranged in irregular bundles with many lobules of mature fat cells with intervening connective tissue. There is absence of any inflammatory reaction. In some areas there is presence of few dilated blood capillaries with engorged RBCs (Figure 5). The histopathology is suggestive of FIBROLIPOMA.

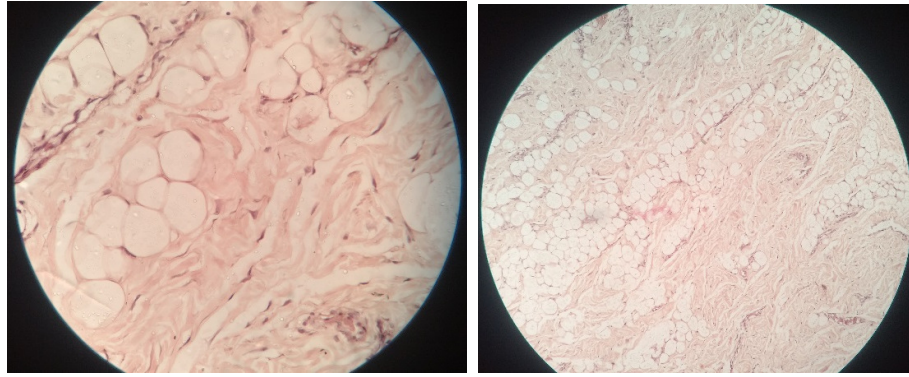


Figure 5 and 6

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 ischemia. Other aetiologies postulated are hormone alteration, metaplasia of muscle 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 is 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 cell lipoma; hamartomatous lesions; diffuse lipomatous proliferations and hibernoma [7].

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 tumor, 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 prompt treatment in the form of surgical excision followed by histopathological diagnosis is warranted.

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