

## Oral Lipoma

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**Abstract:** Lipoma is a common tumour to be found over a body but intraoral lipomas are a rare clinical entity and represent only about 0.1 to 5% of all neoplasms of the oral cavity. The buccal mucosa, tongue, and floor of the mouth are among the common locations. The clinical presentation is typically as an asymptomatic mass. The overlying epithelium is intact, and superficial blood vessels are usually evident over the tumour. Histopathologically, lipomas are benign soft tissue neoplasm of mature adipose tissue. Hereby, we report two cases of intraoral lipoma, one close to floor of mouth and other over buccal mucosa. Lesions were excised surgically and didn't show any recurrence.

**Keywords:** Oral lipoma, Adipocytes, Infiltrating lipoma, Intramuscular lipoma.

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### I. Introduction

Lipoma is a common mesenchymal benign tumour of soft tissue constituting about 50 % of all soft tissue neoplasm<sup>1</sup>. They are usually found as long-standing soft nodular asymptomatic swellings covered by normal cutaneous tissue. Classically it comprises of well encapsulated mature adipocytes of varying sizes with signet shape nucleus. Histologically they can be classified as simple lipomas or its variants, such as fibrolipomas, spindle cell lipomas, intramuscular or infiltrating lipomas, angiolipomas, pleomorphic lipomas, myxoidlipomas, and atypical lipomas<sup>2</sup>. These histologic variety does not affect the overall clinical progress of lipoma<sup>3</sup>.

In head and neck region, about 20 % of neoplasm cases are lipoma<sup>4</sup>. Though this benign growth is common in whole body, it is uncommon to find it in oral cavity.

Roux first described the oral lipoma in 1848 in review of alveolar mass, who called it as "yellow epulis"<sup>5</sup>. It accounts for 0.1-5% of oral benign tumors<sup>6</sup>. Oral lipomas constitute 2.2% of all lipomas<sup>5</sup>.

Oral lipomas affect predominantly the buccal mucosa, floor of mouth, tongue and lips. The most frequent site is buccal mucosa, followed by tongue, floor of mouth, buccal sulcus, palate, lips and gingiva. Intra oral lipoma can also occur within the major salivary glands mainly parotid<sup>6</sup>.

We here present two cases of intraoral lipoma, one at lingual side of mandible and one over buccal mucosa.

### II. Case Report

#### CASE 1

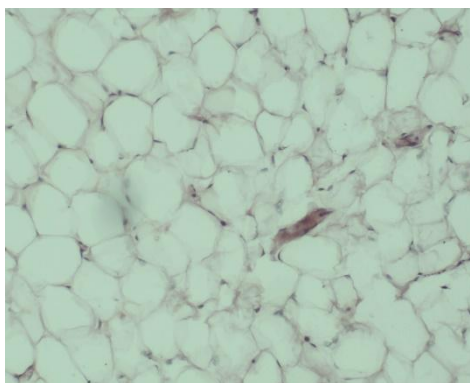
40 year old female referred to Oral Maxillofacial surgery unit with complaint of swelling in lower right lingual aspect of jaw. Swelling was asymptomatic and was present since 4 years which had gradually increased. No significant medical history and extraoral finding was evident. She had no difficulty in mastication, deglutition and speech. There was no associated oral risk habit. No overlying ulceration, local bleeding, sinus tract was present. Intraoral examination showed a well defined oval yellowish swelling of 2x1.5 cm size present on the lingual aspect of 45 and 46 extending from mucogingival junction to the floor of mouth (Fig. 1). The swelling was non tender, mobile, sessile and soft in consistency. It had smooth and intact shiny surface. 45 and 46 were undergoing endodontic treatment with no clinical sign of relation with the floor swelling. A clinical diagnosis of lipoma was made with differential diagnosis of fibroma, lymphoepithelial cyst, mucocele.



**Fig. 1:** Localised sessile swelling on the lingual aspect of right side of mandible.

Excision biopsy was planned under local anesthesia. Blunt dissection was performed; the mucous membrane undermined, encapsulated yellow mass excised. Specimen was sent to histopathologic examination. The patient showed uneventful healing with no post operative complication.

Histopathological examination revealed lobules of mature adipocytes surrounded by thin fibrous connective tissue septa. Adipose cells were uniform round with clear cytoplasm and eccentrically placed nucleus mimicking signet ring appearance confirming the diagnosis of lipoma(Fig. 2).



**Fig. 2:** 10X power image of specimen showing fat cells with peripheral displaced nucleus giving signet ring appearance.

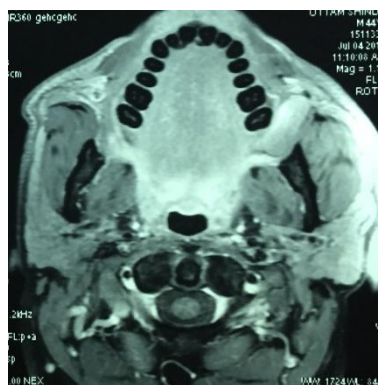
## CASE 2

A 47 year old male patient reported to department of oral maxillofacial surgery in our institute with a chief complaint of swelling in left buccal mucosa since 5-6 years. Past medical history reveals history of diabetes since 4 years and under medication for the same. His medical and family history was non-contributory and general physical examination revealed no other abnormalities. Extra orally, no obvious findings were seen. Intraoral examination revealed a solitary, localized, soft, mobile & non-tender swelling in left posterior buccal mucosa, at the level of plane of occlusion in 26, 27 & 28 region. Overlying mucosa was smooth with slight erythema(Fig. 3).



**Fig. 3:** Exposure of well capsulated yellowish mass over left buccal mucosa.

Radiological investigation was done. MRI showed a well defined hyperintense mass in upper left posterior buccal vestibule region. The density of mass was equivalent to fatty tissue (Fig.4).



**Fig. 4:** MRI showing a well defined hyperintense mass in upper left posterior buccal vestibule region.

Patient's routine blood investigations were within the normal limits. Excision of growth was done. On gross examination excised tissue was approx. 2 x 1.5cm in size, yellowish in colour with smooth greasy surface. The microscopic examination showed similar finding as in case 1. On the basis of clinical, radiological and histopathologic findings diagnosis of lipoma was given.

### III. Discussion

Lipoma is a common benign soft tissue neoplasm composed of mature fat cells. Intraoral lipomas are relatively rare clinical entity and represent only about 0.1 to 5% of all neoplasms of the oral cavity. Clinically they present as asymptomatic soft tissue growth or swelling with a period of reporting to medical professional of about 1 month to 10 years with mean of 2 years<sup>6</sup>.

Intraoral lipomas rarely affect individuals below 40 years<sup>1,4-9</sup>. However in a case report by Juneja et al, they has presented intraoral lipoma in 18 year old patient<sup>10</sup>.

The patients presented in our report are both in 5<sup>th</sup> decade of life. The lipomas are present over buccal mucosa and near the floor of mouth which to our knowledge is a rare location for an intraoral lipoma. The buccal mucosa (53.7%) is most commonly affected followed by buccal vestibule(14.6%) and the tongue(9.8%)<sup>10</sup>. The hard palate and floor of mouth contain less adipose tissue and hence lipomas over these sites are rare among those found in oral cavity<sup>11</sup>.

The exact etiology is unknown, although local trauma, inflammatory, mechanical endocrine factors have been proposed to be the causative factors.

The clinical features of intraoral lipoma vary depending on the rate of growth, size and location. They are asymptomatic, lobular growth, with yellow hue visible through oral mucosa unless present deep in the muscle. Size of the growth can vary from 10mm to upto 80 mm<sup>12</sup>. Cases we presented had intraoral growth of about 2 x 1.5cm.

Intraoral lipoma are relatively easy to diagnose clinically by their yellowish asymptomatic, well localised growth with differential diagnosis of fibroepithelial lesion, lymphangiomas, schwannoma, neurofibroma, fibromas, etc. The so-called infiltrating lipoma may be difficult to diagnose due to its deeper location. In such a scenario CT and MRI would be very helpful for approaching a diagnosis<sup>1</sup>.

One of our patient reported was a diagnosed case of Type II Diabetes Mellitus. Park et al, in his case report reviewed the relationship of Oral lipoma and Diabetes<sup>6</sup>. It stated that due to lipid peroxidation in hyperglycaemic condition in diabetes, mitochondrial mutation occurs, which may be responsible for an lipomatosis growth.

The classic microscopic appearance of lipoma is thin encapsulated mass of fat cells with signet shaped nucleus in the absence of vascularity<sup>3</sup>.

The mainstay treatment of Lipoma is surgical excision with no recurrence. Intramuscular Lipoma has been shown to a recurrence of about 50 – 80 %<sup>1</sup>.

To conclude we found lipomas in oral cavity in relatively rare location. Also we suggest a preferred differential diagnosis of lipoma in a case of gingival swelling in a Diabetic patients. In the present case reports surgical excision was done immediately with histological analysis. Prognosis is good for the patients and no recurrence reported with mean follow up of one year.

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