



## LIPOMA OF TONGUE - A RARE LOCATION: CASE REPORT

## Pathology

**Goutami  
DasNayak**

Assistant Professor, Department of Pathology, KIMS Bhubaneswar, Odisha .

**Krishna Arpita  
Sahoo\***

Senior Resident, Department of ENT, SCB Medical college, Cuttack, Odisha.  
\*Corresponding Author

**Shushruta  
Mohanty**

Senior Resident,, Department of Pathology, MKCG Medical College, Berhampur, Odisha

## ABSTRACT

Lipoma is the most common tumour of the human body. Lipoma is the commonest benign tumour occurring at any anatomical site, where fat is present. In oral cavity and oropharynx, it is a relatively uncommon neoplasm. Tongue, which is totally devoid of adipocytes, is an uncommon site for lipoma. Here, we report a rare case of lipoma of tongue in 60-year-old male patient, with its clinical presentation, the histological picture and management.

## KEYWORDS

Adipose tissue, tongue, lipoma

## INTRODUCTION

Lipoma is the most common benign neoplasm of adipose tissue. It's incidence in head and neck region is about 15–20% and in the oral cavity only 1–4% of all benign tumors.<sup>[1]</sup> Lipoma of tongue occurs only 0.3% of all tongue tumors.<sup>[2]</sup> In the oral cavity, they are commonly present as slow growing asymptomatic lesion with characteristic yellowish colour and soft consistency. Lipomas are commonly associated with lower and upper extremities. The most common site of lipoma in the oral cavity is buccal mucosa, but lipoma of tongue, floor of mouth, gingiva, retromolar area are very rare.<sup>[1,3]</sup>

In this case report, we present the clinical, histological features of lipoma of the tongue and its review literature. The benign fatty tumour, the lipoma, is composed of adult fat cells that are divided into lobules by septae of fibrous connective tissue. It appears most frequently in the subcutis of adults and is histologically indistinguishable from normal adipose tissue. The metabolism of the lipoma differs from that of the normal adipose tissue.

## CASE REPORT

A 60- year-old male, presented with a history of a swelling on ventral aspect of tongue on right side since 6 years. It was gradually increasing to the present size and was painless. Past and family history was not contributory. Clinical examination revealed a solitary, sessile, nodular lesion of yellowish colour measuring approximately 3 x 2 cm with multiple engorged blood vessels over its surface. It was large and ovoid in shape. Surface of the mass was smooth, non-tender, and soft in consistency. (Fig.1, Fig.2) On the basis of clinical examination, provisional diagnosis as benign soft tissue tumour was made. Extra-orally lymph node was not palpable. Routine haematological profile was normal. So, we planned for excisional biopsy of the mass and the mass was sent for histopathological study. (Fig.3) The mucosal layers were closed together with absorbable sutures obliterating the dead space. He made an uneventful recovery from the surgery.

On gross examination, the specimen was of dark yellow colour, smooth surface measuring 3 x 2 x 1.5 cm. Histopathology showed hyperplastic stratified squamous epithelium covered soft tissue and an underlying zone had a lesion enclosed by a thin fibro-collagenous capsule and composed of lobules of mature adipose tissue.(Fig.4, Fig.5) There was no evidence of malignancy. No cellular atypia, necrosis, mitotic activity, vascularisation or lipoblastic proliferation was observed. The histopathological findings confirmed the diagnosis of lipoma of tongue.

## DISCUSSION

Lipoma commonly appears on upper, lower extremities and trunk. Lipoma of the oral cavity is rare, with the prevalence rate of less than 1-5 % of neoplasms.<sup>[1]</sup> The first description of lipoma was found by Roux

in 1848 in a review of alveolar masses; he referred to lipoma as “yellow epulis.”<sup>[2, 3]</sup> The first case reported of lingual lipoma was credited to Barling in 1858.<sup>[4]</sup>

Simple lipoma occurs in all age groups but is more common after 40-50 years and without any gender difference.<sup>[5]</sup> The etiology of lipomas remains unclear, but the trauma, chromosomal abnormality, hereditary, chronic irritation, hormonal imbalance, and metabolic conditions are some of the causative factors that have been proposed.<sup>[6]</sup> Multiple head and neck lipomas are associated with many systemic conditions such as neurofibromatosis, gardner syndrome, familial multiple lipomatosis, madelung's disease, and Bournville's syndrome ,Proteus syndrome.<sup>[6,7]</sup>

These tumours are usually asymptomatic and slow growing in nature. They seldom cause a major problem to the patient when they grow to large sizes or develop ulceration. They have a characteristic yellowish colour with a soft, doughy feel, in the buccal mucosa, floor of the mouth and tongue.<sup>[7]</sup> Superficial lipoma may be diagnosed by clinical examination. The deeper lipomas assessed by means of imaging modalities such as magnetic resonance imaging or computed tomography scan.

Oral lipomas are mostly classified on their histological variants like simple lipoma, infiltrating lipoma, chondrolipoma, spindle cell lipoma, myxolipoma, pleomorphic lipoma, angiolipoma, atypical lipoma, fibrolipoma, neurofibrolipoma.<sup>[8]</sup> Intramuscular lipomas are rather rare types which are characterised by invasion into the muscle tissues or growth between the muscle fibres. The ability of an intramuscular lipoma to infiltrate into the adjacent muscle tissue and its rate of recurrence (3-62.5%) contribute further to a false clinical diagnosis of a malignant tumour.

The differential diagnosis includes ranula, dermoid cyst, pleomorphic adenoma, mucoepidermoid carcinoma, angiolipoma, fibrolipoma.<sup>[9,10]</sup> The diagnosis is confirmed by microscopic examination, which shows adult fat tissue cells embedded in a stroma of connective tissue and surrounded by a fibrous capsule. Histopathologically, findings in the present case were compatible with lingual lipoma. There was an absence of lipoblast proliferation, pleomorphism, cellular atypia, and increased mitotic activity.<sup>[11]</sup> The metabolism of the lipoma differs from that of the normal adipose tissue. Lipoma has a characteristic radiographic appearance. On Computed Tomography (CT) scan it shows a high density from 83 to 143 Hounsfield units with well or poorly defined margins depending on the capsule. Ultrasonography shows a hypoechoic lesion, which is round or elliptical in shape with intact capsule.<sup>[9,12]</sup>

Complete surgical excision is the mainstay of treatment, irrespective

of the histological subtype. However, it rarely recurs in the oral cavity after complete excision along with a little cuff of surrounding normal tissue to prevent recurrence.<sup>[12]</sup>

**CONCLUSION**

The clinician should be aware of the clinical characteristics of oral lesions like lipoma and be able to differentiate malignant and benign tumours and plan its proper management.



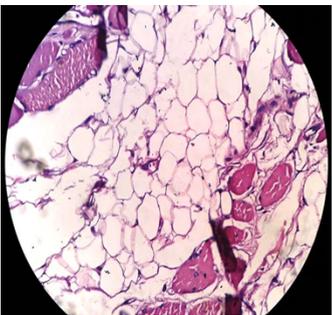
**Fig 1- Smooth swelling on ventral surface of tongue on right side.**



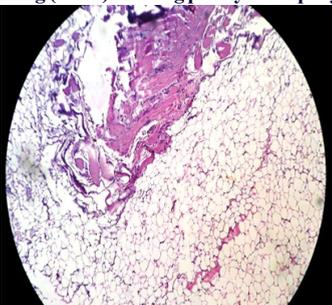
**Fig 2- Lateral view**



**Fig 3 – Dissection of the mass from ventral surface of the tongue.**



**Fig 4- H& E staining ( 10 X )showing plenty of adipocytes.**



**H& E staining (40 X) showing mature adipocytes in lobules**

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**Figure Legends**

1. Smooth swelling on ventral surface of tongue on right side
2. Lateral view
3. Dissection of the mass from the ventral surface of tongue
4. H& E staining ( 10 X )showing plenty of adipocytes
5. H& E staining (40 X) showing mature adipocytes in lobules