

Pathognomonic Features in Lipoma of the Tongue

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Case Summary

A 55-year-old female patient presented with swelling in the right side of her tongue gradually increasing in size over the past 15 days. Otherwise, she was asymptomatic.

The patient was a habitual betel nut chewer.

On local examination, a 2 × 2 cm globular swelling was noted in the right lateral border of the tongue. No other lesions were noted. No palpable cervical lymphadenopathy.

A contrast-enhanced computed tomography (CT) scan of the neck showed an 11 (anteroposterior) × 16 (transverse) × 12 (craniocaudal) mm, well-defined fat density lesion in the anterior third of the tongue (along the right lateral border) with no obvious enhancement. The rest of her tongue was normal. No notable cervical lymphadenopathy was observed. The lesion was excised from the patient under local anesthesia. The patient is currently on follow-up and doing well.

It is difficult to make a clinical diagnosis of oral lipoma because of the possibility of diagnosis of various benign tumors including mucocele, encapsulated abscess, lipoma, neuroma, rhabdomyoma, neurofibroma, fibroma, or salivary gland tumor.



Fig. 1 Preoperative image showing a mass and intraoperative image showing an ovoid encapsulated yellow soft tissue mass with smooth external surface in the right lateral border of tongue.

Macroscopically, the lesion measured 2 × 1.5 × 1 cm. The lesion was an encapsulated yellow soft tissue, ovoid, and with a smooth external surface (→ **Fig. 1**).

Microscopically, a thin fibrous capsule is seen. The tumor shows lobular architecture separated by variably thick fibrovascular septa.¹ These tumor cells are mature adipocytes with small eccentrically placed nuclei where the nuclei are often compressed (→ **Fig. 2**) with no notable inflammation, or cellular atypia, lipoblasts, or features of malignancy. Thus, final diagnosis was histopathologically confirmed as lipoma.

Discussion

The common mesenchymal tumors of the soft tissue are benign lipomas. The vestibule, floor of the mouth, tongue,

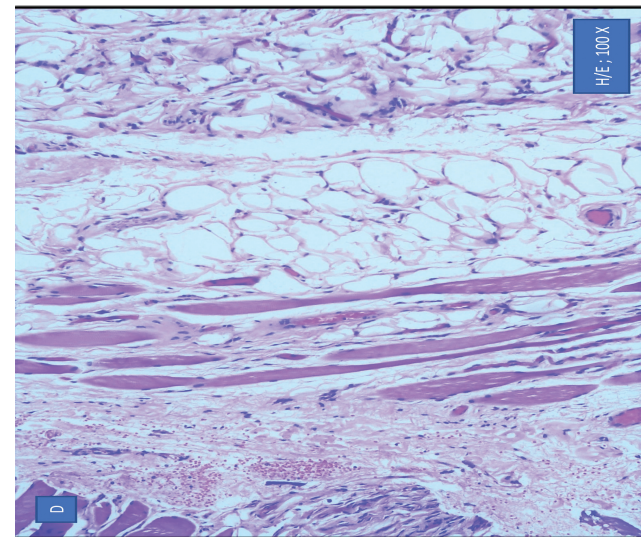


Fig. 2 Microscopically the sections showing sheets and lobules of benign adipocytes separated by variably thick fibrovascular septa. Focally, the adipocytes are seen to infiltrate around skeletal muscle tissue.

lip, palate, buccal mucosa, and major salivary glands are additional potential locations for occurrence.^{2,3} It is estimated that between 1 and 4.4% of all benign oral lesions develop in the oral cavity, with tongue lipomas most frequently occurring in the superficial submucosal connective tissue. Thus, showing the relatively rare occurrence of tongue lipomas.⁴

Lipomas are more frequently seen in adults in the age group of 40 years; they can occur in all age groups with an equal gender predilection.⁴

Although the etiology of lipomas is still unknown, various potential etiologies are heredity, hormones, trauma, infection, chronic irritation, infarction, and fat degeneration.⁵

Lipomas usually are asymptomatic and slow growing.

Lipoma or classical lipoma has histopathologically benign variations including angiolipoma, angiomyolipoma, myolipoma, fibrolipoma, chondroid lipoma, chondrolipoma, osteolipoma, intramuscular lipoma, myelolipoma, sialolipoma, spindle cell/pleomorphic lipoma, hamartomatous lesions, diffuse lipomatous proliferations, and hibernoma.⁶

Imaging modalities such as ultrasound, CT scan, or magnetic resonance imaging (MRI) may be performed to aid the diagnosis of lipoma.

The low mass density of lipomas can be indicated in a CT scan alongside differentiated infiltrating lipoma and well-encapsulated lipomas. For a greater soft tissue definition, MRI is preferred. An MRI shows vastly improved definition of lingual tumor boundaries in pre-operative settings. The vicinities of these tumors to large vessels, tumor vascularity, etc., are better visualized in MRI.⁷ However, the gold standard for diagnosis continues to be histopathological examination. The tumor appears in histopathological examination as adult fat cells subdivided into lobules by fibrous connective tissue septa.⁸ Capillaries being compressed by the surrounding adipocytes is depictive of tumor vasculature. Lipomas are considered to have excellent prognosis and recurrence is not common after complete excision. Hence complete surgical resection is considered to be the cornerstone of treatment. Due to its benign nature and very low recurrence rate, the lesion

does not need any additional adjuvant therapy after complete resection.

Author's Contributions

M.N. conceptualised the study, reviewed the manuscript and he is the guarantor. R.B. designed the study, defined intellectual content, performed literature review, prepared and edited the manuscript. R.M and V.C.K. reviewed the manuscript.

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Conflict of Interest

None declared.

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