

Less Explored Dimension of Lipoma: A Case Report

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ABSTRACT

Background: Lipomas are benign mesenchymal tumors composed of mature adipocytes. It's occurrence in the head and neck region is about 15–20% and in the oral cavity only 1–4% of all benign tumors.[1] The incidence of lipoma of tongue contributes to 0.3% [2] They present as a slow- growing, well circumscribed, encapsulated and sessile or pedunculated mass. To diagnose a lipoma is a bit tricky for the young surgeons when compared to the experienced due to its resemblance with traumatic fibroma, salivary gland lesions (mucocele and mixed tumors), granular cell tumor, neurofibroma etc. Lipoma in the oral cavity could cause functional hinderances like in speech, mastication, swallowing, maintenance of oral hygiene and also esthetically depending on the location, size, and number of the lipoma. The treatment aspects can be broadly divided into either pharmacological therapy or surgical excision. So here we are reporting one such case where the lipoma was present on the lateral aspect of the tongue, and how we diagnosed and why it was important for treating it, the way we did. so, this case report could be a small take away lesson for the beginners, on how to approach such cases.

Keywords: Lipoma, Oral cavity, MRI.

INTRODUCTION

Lipoma is a soft tissue mesenchymal neoplasm composed of fat cells of Adult type^[1]. It's occurrence in head and neck region is about 15–20% and in the oral cavity only 1–4% of all benign tumors.^[1] Lipoma of tongue occurs in only 0.3% of all tongue tumors. Oral lipoma affects predominantly the buccal mucosa, floor of mouth, tongue and lips^[1]. Lipoma is usually asymptomatic and slow growing in nature, well circumscribed with a smooth overlying surface, yellowish in colour, soft in consistency. Occasionally it may cause discomfort

on mastication. Treatment of lipoma is mostly surgical excision.

In this article we report a case of 55-year-old female patient who came to our department with a chief complaint of swelling on the left side of her tongue.

CASE REPORT

A 55 years old female patient presented to our department of Oral and Maxillofacial Surgery, complaining of a growth on left side of the tongue

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for six months which is associated with pain and difficulty in chewing food for 20 days. It was initially small in size and gradually increased to present size. The uniqueness of this case is the location of the lesion, presenting in an old patient, leading us to a variety of lesions to be considered for coming to an ultimate diagnosis.

Her medical history revealed that she was a known hypertensive for the past 5 years and is on medication [Tab Telmisartan-40mg].

Patient had no deleterious or Para-functional habits so helping us to primarily rule out a traumatic fibroma or a cancerous growth.

On clinical examination, a soft tissue mass measuring 3 x 2 cm in size located 3 cm away from tip of the tongue which is well circumscribed and ovoid in shape was present on left lateral border of tongue. Swelling is covered by normal appearing thin oral mucosa and covered by a smooth surface presenting as a sessile. No ulceration, numbness or inflammation were seen, but depapillation of tongue was appreciated which was one of the symptoms worthy of a note usually skipped by the young surgeons on those minor details. [Figure:1]. Dilated blood vessels are seen on the ventral surface of the tongue [Figure:2].

On palpation swelling was soft to firm, fluctuant, non-tender fixed to underlying mucosa which is non compressible, with no numbness and no local rise of temperature. [Figure:3] No lymphadenopathy seen. Slip sign was positive, which is another key aspect in diagnosing a lipoma.

Patient came with a MRI report suggesting of well-defined capsulated homogenous fat signal intensity mass lesion on the lateral margin of the tongue of the left side. Shows homogenous suppression on fat sequence without any restriction on diffusion. No evidence of erosion of adjacent mandible. This lesion was suggestive of a benign lipoma. [Figure- 4]

Aspiration results were negative, thus ruling out vascular and cystic lesions.

Case was planned for excisional biopsy under local anaesthesia. Lingual nerve block and infiltration was given around the lesion. Longitudinal incision was preferred over horizontal incision on tongue as

it may cause damage to blood vessels and muscles [Figure: 5].



Fig 1: Dorsal side of tongue.



Fig 2: Ventral surface of the tongue showing engorged blood vessels.

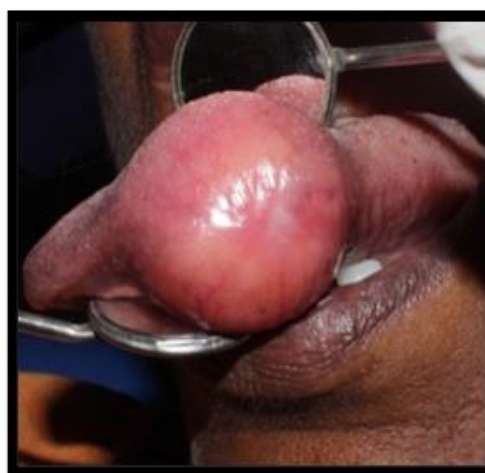


Fig 3: Lateral aspect of the tongue.

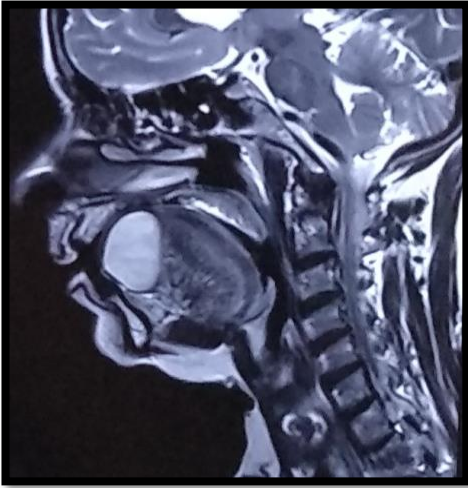


Fig 4: MRI- Sagittal Section.



Fig 5: Longitudinal incision placed on the lesion.



Fig 6: Removal of the lesion.

Immobilisation of tongue was done by placing stay suture. Blunt dissection was carried out to reach the soft tissue mass after which yellow mass popped out and was delineated from the surrounding muscle tissue. As the lesion was a well encapsulated mass, it was removed completely along its intact margins. [Figure: 6]. Redundant muscle layer involved in the lesion was stripped which helped in



Fig 7: Excised specimen.

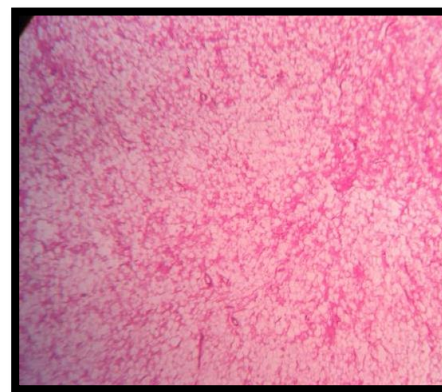


Fig 8: Histopathological specimen.

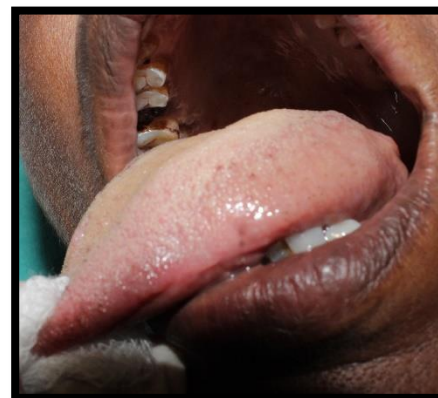


Fig 9: Healing of the tongue was uneventful and has helped the patient in both speech and mastication.

attaining a better approximation of the tissues on primary closure with horizontal mattress suture. Postoperatively patient was maintained on oral antibiotics and analgesics. As tongue is highly mobile organ, it may have high chance of slippage of sutures and thus care should be taken to prevent it.



Fig 10: Healing of the tongue was uneventful and has helped the patient in both speech and mastication.

Postoperative instructions were given to avoid excessive tongue movements.

Excised specimen was sent for histopathological examination [Figure: 7].

Histopathological report revealed soft tissue section showing cross and transverse sections of muscle tissue, sections of nerve tissue, neurovascular bundle intermixed with loosely arranged bundle of collagen fibres, endothelial lined blood capillaries filled with RBCs and extravagated RBCs.

The microscopic examination revealed numerous pale staining round to polygonal cells with peripherally placed prominent nucleus with thin cell membrane resembling adipocytes. The intervening connective tissues were few and delicate composed of collagen fibres and endothelial lined blood capillaries filled with RBCs and also extravagated RBCs. [Figure8]

The histopathological report suggested as lipoma.

Outcome and Follow up-

Patient was followed for 6 months with no recurrence. Fig.9 and 10 show that the healing of the tongue was uneventful and has helped the patient in both speech and mastication.

DISCUSSION

Roux gave the first description of an intraoral lipoma in 1848 and he referred to it as a "yellow epulis" [2]

It is most common in adults and very uncommon in children, more common in females than males. Generally oral lipomas occur in all ages more frequently seen in 4th decade of life. Lipoma is mainly solitary and approximately 5% of patients have multiple lipoma. Oral lipomas can occur most commonly in buccal mucosa followed by lip, tongue, palate, vestibule and floor of the mouth [4]. Tongue is a rare site for lipoma. A characteristic slip sign may be elicited by gently sliding the fingers off the edge of the tumour.

Aetiology of lipoma remains unknown but two main theories have been established.

- (i) The "Hypertrophy theory", which states that obesity and inadvertent growth of adipose tissue may contribute to their formation. This theory is less convincing at explaining the lesions that occur in areas lacking pre-existing adipose tissue.
- (ii) The "Metaplasia theory" suggests that the lipomatous development occurs due to aberrant differentiation of mesenchymal cells in lipoblasts.

Other mechanisms such as trauma, infection, chromosomal abnormalities or hormonal imbalances have also been proposed.

Histologically they can be classified as simple lipomas and variants, such as fibrolipomas, spindle cell lipomas, intramuscular or infiltrating lipomas, angiolipomas, salivary gland lipomas, pleomorphic lipomas, myxoid lipomas, and atypical lipomas [5]. Simple lipomas are most frequent in oral and maxillofacial region, followed by fibrolipomas or spindle cell lipomas [9].

Lipomas are differentiated from other tumours in oral cavity. The histopathologic differential diagnosis includes fibroma, leiomyoma, pleomorphic adenoma in a minor salivary gland, papilloma, epidermoid cyst and others. [7]

It is usually easy to diagnose lipoma but often more chances to be deviated. Superficial lipoma can be diagnosed by clinical examination but with deep-seated lingual lipoma, diagnosis may be assisted by using non-invasive techniques, including ultrasound, computed tomography or magnetic resonance imaging [6]. As in our patient MRI was

helpful in diagnosing the lesion as there was a fat intensified signal which was identified. An easier way and quick to access diagnostic tool would be an ultrasound examination.

Treatment can be of two types.^[10] Main stay of treatment is surgical excision. Surgical approach is dependent on the site of tumor. Superficial lipomas are easily removed, but if they are positioned deeply, excision is difficult. Surgeries of tongue are difficult to perform as it is a highly mobile and vascular structure. Upcoming surgeons should be careful while dealing with such a lesion on tongue as the chances of damaging the vessels and also risk of postoperative stricture or fibrosis could cause difficulty in speech. Medical management of lipomas has been proposed which involves injecting steroids to cause atrophy of adipose tissue. Lesions which are less than 2.5cm in diameter show a better prognosis. The injection of a mixture of 1:1 parts lidocaine with triamcinolone acetoacetonide is repeated once a month.

When lipoma are left untreated they may grow large and cause orofacial deformities, macroglossia, atrophy of tongue musculature, dental abnormalities like anterior open bite, masticatory difficulties, interference with movement of tongue, airway and speech problems, secondary trauma leading to ulceration ^[8]. After surgical excision, relapse and malignant transformation are rare.

CONCLUSION

Lipoma is a benign tumour of fatty tissue with rare occurrence patterns in the oral cavity. Tongue is a rare site for its occurrence and challenge to surgeon as it is highly mobile structure to deal with while operating with highly vascular. Surgical excision is treatment of choice and recurrence rarely follows the excision of the tumour. Because of its varied expression in the oral cavity, reporting of each variety of case can add to the review of literature and also help to attain knowledge on the different dimensions of diagnosing and treating it.

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CONFLICTS OF INTEREST

The authors declare they have no potential conflict of interests regarding this article.

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