

Lipoma of Tongue: A Common Lesion at an Uncommon Location

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Abstract

Though lipoma is a most common benign tumour its incidence in oral cavity is very rare. These lesions are usually slow growing and painless hence go unnoticed for years. Because of the rarity of this tumour, here we are discussing a case of very large and long standing lipoma of tongue and its surgical management.

Keywords: Lingual Lipoma; Intraoral Lipoma; Wide Excision; Tongue Lipoma

Introduction

Lipoma is a benign mesenchymal tumour composed of mature adipocytes. Incidence of lipoma 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 0.3% of all tongue tumors [2]. Clinically all the lipomas are slow growing and asymptomatic. Intraoral lipomas with significantly large size may hamper routine masticatory functions and phonetics. Large lipomas present of ventral surface of tongue or palate may cause respiratory difficulty hence excision of these lesions is mandatory.

Here, we are documenting a case of excessively large lipoma present over ventral surface of tongue and its surgical management.

Case Report

A 37 year male patient reported to department of head and neck oncosurgery with complain of large painless growth over the tongue since last 7 to 8 years. The lesion was gradually increasing. Patient had mild difficulty in speaking and swallowing but not in breathing.

On examination, there was about 8 * 8 cm sized pedunculated growth present on ventral and right lateral surface of tongue extending up to floor of mouth. Surface of Lesion was smooth and shiny and yellowish red in colour with multiple engorged blood vessels over its surface. Overlying mucosa was thin without any

ulceration or inflammation. The remaining tongue and the oral mucosa didn't show any other abnormalities on inspection (Figure 1). There was sensory or functional impairment noticed. On palpation the lesion was non-tender, soft, rubbery, nonpulsatile and compressible. Venous congestion was noted at the bottom of the lesion. There was no induration on palpation of tongue. There were no palpable cervical nodes. The clinical diagnosis made was benign mesenchymal tumour with a differential diagnosis of Lipoma, fibroma, haemangioma and neurofibroma. Looking at the size of lesion, the patient was advised to undergo MRI before any surgical intervention. But patient was reluctant to undergo imaging because of financial constraints. FNAC of the lesion was carried out and diagnosis made was lipoma.

Figure 1: Clinical photograph showing large polypoidal mass involving right lateral and ventral surface of tongue.

Wide excision of lesion was planned under general anaesthesia. Circumferential incision was given at the junction of the lesion and the tongue mucosa. During dissection it was noted that the tumour was firmly fixed to the underlying tongue muscles and there was no plane between the lesion and tongue muscles. The tumour was excised completely together with a thin margin of part of genioglossus and intrinsic muscle tissue in the inferior part (Figure 2). Around 4 to 5 large feeding vessels were present at surgical bed. All the feeding vessels were identified and ligated and excision of the lesion was done. Tongue defect closed with interrupted vicryl sutures. Excised specimen was sent for histopathological examination.

Grossly, the tumour was polypoid measuring about 8 x 8 cm. On cut section, it was partially encapsulated and had yellowish greasy

Figure 2: Intraoperative photograph of lesion showing thin margin of attached tongue musculature.

lobulated appearance (Figure 3). On histopathological examination, the tumour was covered by an intact squamous epithelium of tongue mucosa. Beneath the epithelium was seen a partially encapsulated tumour composed of mature adipocytes arranged in lobules and admixed with delicate vasculature. No nuclear atypia, necrosis or mitosis was noted (Figure 4a and 4b). Hence, a histopathology diagnosis of lipoma of tongue was made.

Figure 3: Gross specimen showing polypoidal mass with thinned out intact mucosa.

On one month follow up, there was good healing of tongue and no functional disability to the patient.

Figure 4: Microphotograph showing (a) intact squamous epithelium overlying the tumour composed of mature adipocytes with delicate vasculature x10 (b) x40.

Discussion and Conclusion

Lipoma is a benign mesenchymal tumour of mature adipocytes. Extremities are the sites of greater incidence of this mesenchymal tumor. Lipoma of tongue is very rare and accounts for 0.3% of all tongue tumours. Microscopically, it is composed of mature adipocytes; however, in 20% of cases, it demonstrates histological variants that include spindle cell lipoma, pleomorphic lipoma, angiolipoma, fibrolipoma, myxoid lipoma and atypical lipoma.

Clinical course of lingual lipoma is usually asymptomatic until it grows to larger sizes where it may cause respiratory obstruction or difficulty in mastication. The duration of the oral lipoma at the time of presentation ranges from 15 days to 50 years [3]. Lesions outside the oral cavity could show greater recurrence rates after surgical excision, but intraoral lipomas, although rarely show recurrence if completely excised [3].

We report a case of 40-year-old male with a slow growing mass present since the last 2 years, which measured 7 cm in diameter over the right lateral border of tongue the mass was painless but he had difficulties swallowing and tongue movement was impaired; however, taste and somatic sensation was intact. Large tumors have been shown to cause anterior open bite [4]. The infiltrating lipomas are sometimes so extensive that it can cause muscle dysfunction or sensory changes. The clinical differential diagnosis includes fibroma, dermoid cyst, minor salivary gland tumours, mucocele, haemangioma, lymphangioma, rhabdomyoma or neuroma.

On extensive search of English literature, as per our knowledge only 73 cases of lingual lipoma have been reported. In Indian literature, only 18 cases of lingual lipoma have been reported till date [5,6].

Magadam reported a 60-year-old man with a 3 cm mass in his tongue, which he had first noticed about 10 years earlier. Because of the absence of pain and bleeding, he was not initially alarmed, but later he complained of masticatory problems [3].

In other studies: Chunkitchung reported a 62-year-old man with a 6 cm mass in his tongue that was slow growing for 2 years. He had difficulties swallowing large food items. Moreover, his speech was not very clear due to the bulkiness of the mass [7].

Chidzonga reported a 58-year-old female with an 11 cm mass that had been present for 3 years. She had a large “anterior open bite” and slurred speech with the tumor bobbing up and down and in and out of the mouth when speaking. Despite the feeding and breathing difficulties, she was well nourished and not in any particular distress [8].

Chandak also reported a 75-year-old man with a mass on the anterior border of the tongue, which he had first noticed 16 years earlier. He had difficulty in mastication and swallowing, and frequently used to wake up from sleep because of obstruction in his airway [9].

Finally, Colella reported a 75-year-old man with a 10 cm mass in his tongue from 30 years ago. His speech was not very clear due to the bulkiness of the mass and he had difficulties swallowing [10].

The etiology is unknown, but according to literature two main theories have been established. The “Hypertrophy theory”, according to which inadvertent growth of adipose tissue may contribute to formation of lipoma. But the theory doesn’t explain development of lipoma in areas lacking pre-existing adipose tissue like tongue [11]. The “Metaplasia theory” suggests that the lipomatous development occurs due to aberrant differentiation of mesenchymal cells in lipoblasts [12]. The other proposed mechanisms include trauma, infection, chromosomal abnormalities or hormonal imbalances etc.

Surgical excision is the primary line of treatment for these lesions. Approach to resection is based on accessibility to the mass,

size of the mass, and concern for postoperative airway obstruction secondary to lingual swelling [13]. Well-encapsulated lipomas, as the present case, easily shell out with no possibility of recurrence or damage to the surrounding structures. It is still advisable to excise them with a little cuff of surrounding normal tissue to prevent recurrence while still conserving surrounding structures [14]. Medical management of lipomas has also been proposed which involves injecting steroids to cause atrophy of adipose tissue. Lesions which are less than 2.5 cm in diameter show a better prognosis. The injection of a mixture of 1:1 parts lidocaine with triamcinolone acetonide is repeated once a month. The average volume used ranges from 1 to 3 ml depending on the size of the tumor.

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