

Oral lipoma revisited: A case report.

Carine Tabarani¹ and Fawzi Riachi²

Abstract:

Lipoma is a relatively uncommon benign, slow growing tumor of adipose tissue in the oral region, affecting males more than females. We present a report of an unusual lipoma arising on the ventral tongue. Histopathology remains as the golden standard in definitive diagnosis of lipoma. The patient, a 69-year-old male, consulted us with the chief complaint of a painless swelling that had been present for four years on the ventral surface of the tongue. Both an intra-oral examination and the patient's medical history with systemic review were non-contributory. The treatment chosen in this case was a local excision of the tumor along with the surrounding capsule. The tumor was then surgically excised with the restoration of normal tongue function. Microscopic examination of the excised tumor confirmed it was lipoma. The occurrence of lipoma in the ventral site of the tongue is relatively uncommon, comprising only 5% of all benign tumors in this location^{1,2} and here is a report of such case for its rarity.

Keywords: Lipoma, ventral tongue, benign tumor, adipose tissue, local excision.

Introduction

Lipoma is the most common benign tumor occurring at any anatomical site where fat is present.^{2,3}

Oral lipomas predominantly affect the buccal mucosa, the floor of the mouth and the tongue and lips all of which are classified as classic lipoma, lipoma variants (e.g: angioliipoma, chondroid lipoma, myoliipoma, spindle cell lipoma) hamartomatous lesions, diffuse lipomatous proliferations and hibernoma.⁴

Ventral bordant mucosa of the tongue forms a complex structure which consists of a flexible non-keratinized epithelium (0.1 to 0.5mm) and deeply covers a submucosal layer containing collagen fibers, salivary glands, adipose

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tissues and vessel subdivisions. Its incidence in the oral cavity is thought to be between 1% and 4.4 % of all benign oral lesions.^{2,5} Lipoma, although morphologically indistinguishable from usual fatty tissue, differs from normal body fat in that its lipid is not available for metabolism and it is usually surrounded by a thin fibrous capsule.^{6,7}

We will report a case of lipoma of ventral tongue, mainly to stress clinical and diagnostic features.

Case report

A 69-year-old male patient, complaining of a painless swelling of the ventral tongue consulted our private clinic with the chief complaint of a four year old painless swelling located on the ventral tongue (Figure 1).

The swelling was not associated with pain nor bleeding, although it was shown to cause discomfort with tongue movements during swallowing, eating, drinking and speech (Figure 2).

The patient's medical history proved excellent health and the hematological and biochemical parameters were within

normal limits and systemic review was non- contributory.

Intra-oral examination revealed a firm, mobile lobulated submucosal circumscribed tongue mass bulging into the right ventral surface which measured 1,5 × 1,5 cm in size, free from the muscles of the tongue and displaced the vascular bundles . Taste and somatic sensation were still

intact . Among the differential diagnoses were granular cell tumor, neurofibroma, traumatic fibroma and salivary gland tumor .

After local analgesia was performed to the right ventral tongue (Figure 3), a vertical superficial scalpel incision (with a 15 c blade) was made along the ventral mucosa in order



Figure 1: Right ventral tongue showing the swelling



Figure 2: Profile view of the tongue

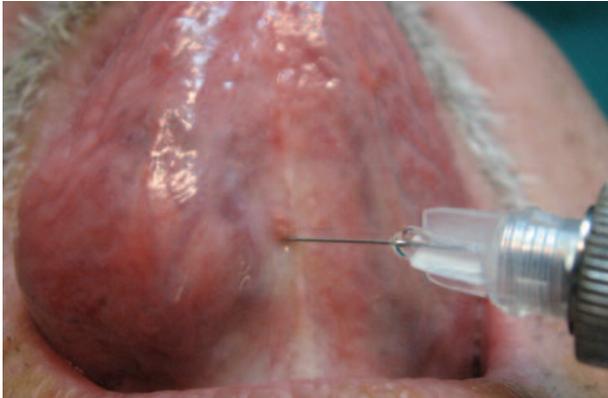


Figure 3: Local analgesia of right ventral tongue with 2% lidocaine with 1/100,000 epinephrine.



Figure 4: First vertical incision, note the bulging lingual vessels



Figure 5: Second vertical incision, note the emerging yellowish mass with displacement of the lingual vessels



Figure 6: Bulging vessels while removing the yellowish mass



Figure 7: Lipomatous mass emerging from ventral tongue



Figure 8: View of the intrinsic muscles after mass excision

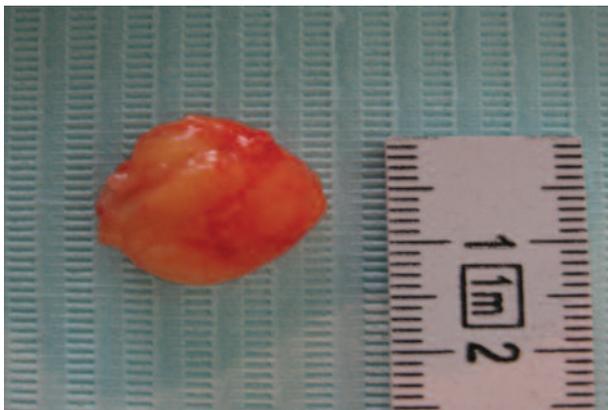


Figure 9: Specimen was yellowish in color and smooth in consistency measuring 1,5x1,5x1 cms. Specimen was dissected and processed

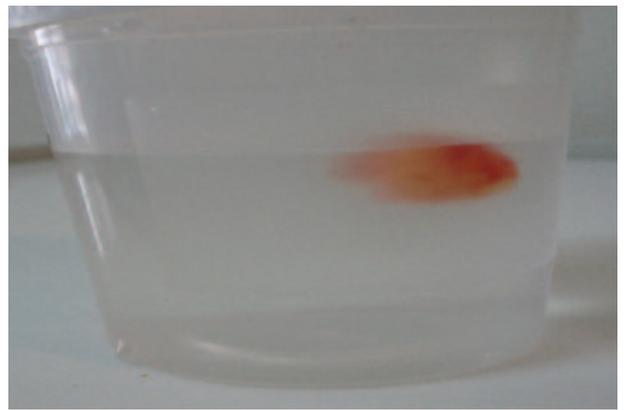


Figure 10: Lipoma floating on the surface of formalin rather than sink to the bottom of the biopsy specimen jar.

to avoid injury of the mass and the vascular bundle, including lingual arteries, were displaced and preserved (Figure 4). A second vertical superficial incision (Figure 5) was made, using thin tip scissors, to free the yellowish submucosal mass (Figure 6).

The surgical excision was progressively made and the mass was extirpated (Figures 7,8). Three resorbable sutures were made to accelerate the cicatrization process.

Macroscopically, the surgical specimen consisted of a well demarcated mass of 1,5 x 1,5 x 1 cm that appeared yellow and lobulated on the cut surface (Figure 9). Histological material was fixed in 10% buffered formalin (Figure 10) and was then regularly processed and embedded in paraffin. Histological sections were stained with haematoxilin-eosin-sapran.

Microscopical examination revealed mature adipocytes lobules that were separated by thin conjunctive septa without cellular atypia or lipoblast, which is pathognomonic for malignant liposarcoma (Figures 11 - 13).

Histopathological examination of the excised tumor confirmed that it was a benign lipoma. The one-year follow-up post-surgery showed neither recurrence nor swelling (Figure 14).

Discussion

Lipomas commonly occur as soft tissue tumors, usually located in the subcutis, although rarely found in the oral cavity,^{8,9} the tongue and affecting most commonly males.¹⁰ The occurrence in the oral cavity is reported as 4% of all lipoma.^{1,11} They frequently appear as slow growing asymptomatic lesions with a characteristic yellowish colour. They are nodular, softened and the overlying epithelium remains intact in the buccal mucosa, the floor of the mouth and tongue, usually in the fourth and fifth decade.¹² They are often noted for many months or years before diagnosis.⁹

Recently Fregnani et al. and Furlong et al. reviewed lipomas in the oral cavity and reported 8 and 2 patients with intramuscular lipoma. However the study did not provide

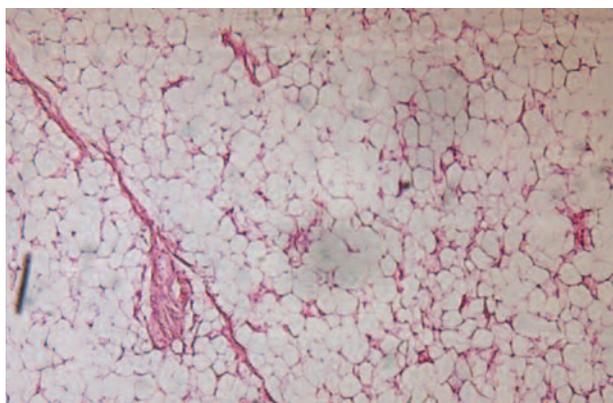


Figure 11: Histopathology showing the lipomatous features (Hematoxylin –eosin x5)

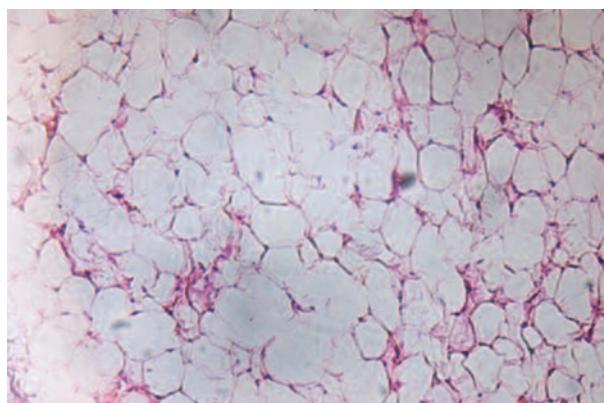


Figure 12: Note circumscription. Hematoxylin - eosin staining x20

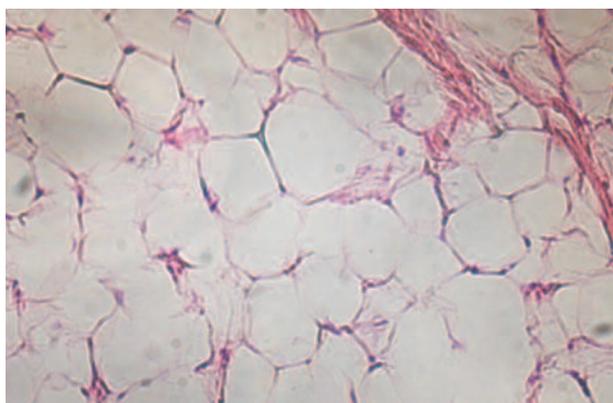


Figure 13: Histopathology of soft tissue coloration with hematoxylineosin safran staining x 40 showed stratified proliferation tumor constituted of mature lobules of plump adipocytes separated with thin conjonctive septaes



Figure 14: Appearance of the ventral site of tongue 7 days postoperatively

any information on the age and gender of the patients in their reports.¹ Five percent of lipomas situated within the connective tissue are multiple and this tendency is sometimes inherited as an autosomal dominant trait that may be seen in Gardner syndrome, Proteus syndrome, Dercum's syndrome and multiple familial lipomatosis.^{13,14}

Geschieter reported in 1943 that only 3 of 460 lipomas were found in the mouth.

Although trauma, infection and other factors have been proposed as the cause of lipoma, no single factor has yet been identified.¹⁵

Local excision of the tumor mass along with the surrounding capsule was the treatment of choice.¹² The superficial location allows a complete resection, which is not possible for the deep-seated counterpart. Excision provides more tissue for examination than fine needle aspiration which can be difficult to distinguish from a well-differentiated lipoma- like liposarcoma.

Lingual lipoma, which accounts for 0.3% of tongue

neoplasms, is a benign condition. Deeply situated tumors are more difficult to recognize clinically but Cottrell et al.¹⁵ have shown that computed tomography or magnetic resonance imaging may enable the diagnosis to be made.¹⁵

Definitive diagnosis depends on correlation between the histological and clinical features. The histopathology remains the golden standard in diagnosis of lipoma.

Microscopically lipoma is composed of mature adipocytes. In 20% of its cases it demonstrates histologic variants that includes spindle cell lipoma, fibrolipoma, angiolipoma and atypical lipoma.

A low rate of recurrences, perhaps due to incomplete excision, is often associated with this tumor.¹⁶

Malignant transformation from a preexisting lipoma is an extremely rare occurrence, although it is a potential threat typically in a huge lipoma. Enzinger and Weiss stated that malignant change has never been encountered in a lipoma.¹⁴

The case presented in this article did not show any features of malignancy, resulting in an easily carried out diagnosis.

Conclusion

We have no previous reports of a lipoma in the ventral site of the tongue. To the best of our knowledge this is the first reported case. Lipomas must be well diagnosed and surgical excision should be carefully done.

When a painless, slow growing, well demarcated lesion occurs in the ventral part of the tongue, although it is uncommon, one must consider lipomas of the ventral site of the tongue.

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