CASE REPORT

Classic tongue lipoma: a common tumour at a rare site

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SUMMARY

Lipoma is the commonest benign tumour occurring at any anatomical site where fat is present, but occurrence in the oral cavity is rare. Tongue which is totally devoid of fat cells is a rare site for lipoma. This is one such rare case of the universal tumour, presenting at the lateral margin of the tongue, for which complete tumour excision was done. Macroscopically the mass had a hard consistency and measured 3.0×2.0 cm. From microscopic examination, diagnosis of lipoma was made. Recurrence of tongue lipoma is rare.

BACKGROUND

Lipomas are common benign soft tissue neoplasms of mature adipose tissue; however, they are relatively uncommon in the oral and maxillofacial region. Their overall incidence in the oral cavity is thought to be between 1% and 4.4% of all benign oral lesions.^{1–2} Oral lipomas can occur in various anatomic sites including the major salivary glands, buccal mucosa, lip, tongue, palate, vestibule and the floor of mouth. Various case reports have described lipomas and its variants in several locations.^{3–9} Lipomas have been classified, according to their morphological features, into simple lipoma, fibrolipoma, spindle cells lipoma, angiolipoma, myolipoma, pleomorphic lipoma, myxoid lipoma, atypical lipoma and infiltrated lipoma, also termed as intramuscular or intermuscular lipoma characterised by an infiltrative growth pattern and a high recurrence rate.^{10–13} Generally, oral lipomas have been reported to occur in all ages but are frequently seen after 40 years of age.^{1–11}

CASE PRESENTATION

A 60-year-old male was referred to our department in January 2011 complaining of a painless swelling of the right side lateral border of the tongue measuring about 3 cm in greatest diameter, which he had first noticed about 10 years earlier. The swelling started as a small nodular growth, gradually increasing in size, not associated with any symptoms. Because of the absence of pain and bleeding, he was not initially alarmed, but later he complained of masticatory problems. There was no history of other tumour masses, his medical health was excellent. Clinical examination showed a soft tissue mass which was yellow in colour covered by normal appearing thin mucosa, no ulceration or inflammation; on palpation, the lesion was soft to firm and fluctuant (figure 1).

INVESTIGATIONS

Preoperative investigations included complete blood count, bleeding time and clotting time. Values were within the normal range. Urea, electrolytes and glucose levels were all within the normal range.

Histopathological examination of the excised specimen report indicated that the section studied showed a mass that was essentially composed of mature normal fat cells. Malignant cells were not seen. The histopathological diagnosis was that of lipoma (figure 2).

DIFFERENTIAL DIAGNOSIS

- ▶ Mucocele
- ▶ haemangioma
- ▶ lymphangioma
- ▶ rhabdomyoma
- ▶ neuroma
- ▶ neurofibroma
- ▶ pleomorphic adenoma
- ▶ adenocarcinoma
- ▶ fibroma and salivary gland tumour.

Aspiration of the lesion with a fine needle did not produce any aspirate. This indicated that the swelling was solid in nature. Therefore, other lesions like mucocele, haemangioma and lymphangioma were excluded.

TREATMENT

Under local anaesthesia, excisional biopsy of the lesion was carried out. During dissection, we noted that the tumour was firmly fixed to the underlying tongue muscle and it was not well encapsulated at the junction of the lesion and tongue muscle. The tumour was excised completely together with a thin margin of normal muscle tissue in the inferior part and a thin margin of normal mucous in the superior part (figure 3). The excised specimen measured 3×2 cm (figure 4). Suturing of the tongue

Figure 1 Lipoma of the right side of the tongue.

To cite: Magadum D, Sanadi A, Agrawal JM, et al. *BMJ Case Reports* Published online: [please include Day Month Year] doi:10.1136/bcr-2012-007987

Figure 2 Histopathological section showing mature fat cells.

was done after surgical excision (figure 5). The histopathological examination report indicated that the section studied showed a mass that was essentially composed of mature normal fat cells. Malignant cells were not seen. The histopathological diagnosis was that of lipoma (figure 2).

OUTCOME AND FOLLOW-UP

Postoperative healing was excellent and there was no recurrence of the lesion after 1.5 years (figure 6).

DISCUSSION

Benign lipomas are the most common mesenchymal tumours of the soft tissue, but are relatively uncommon in the oral and maxillofacial region.¹⁴ Geschickter (1934),¹⁵ reported that only 3 cases out of 460 lipomas were found in the oral cavity. Panders and Scherpenisse (1967),¹⁶ described a series of 10 lipomas of the oral cavity but none involved the tongue.

Hatziotis (1971),¹⁷ reviewed the entire dental literature over a period of 22 years, from 1945 to 1967, and reported only 146 cases of oral lipoma, including 1 of his own, of which 28 (19%) involved the tongue. More recently, Fregnani *et al*¹ reported 46 cases of lipomas of the oral cavity, which corresponded to 0.5% of all tumours diagnosed over a period of 31 years (1970–2001).

Lipomas generally grow slowly and, because pain is not a feature in many cases, many years elapse before patients consult their dentist or physician. The duration of the oral lipoma at the time of presentation ranges from 15 days to 50 years. However, occasional fast-growing lipomas have been reported. Majority of oral lipomas rarely grow >2.5 cm in diameter.^{17–20}

Generally, oral lipomas have been reported to occur in all ages but are frequently seen after 40 years of age.^{1 11 17}

Figure 3 Intraoperative photograph showing excision of lipoma from tongue.

Figure 4 The excised specimen measured 3 cm x 2 cm.

Hatziotis reported that 80% of the patients were over 40 years of age, 64% were over 50 years and 40% over 60 years with an age range of 2–87 years and a higher incidence in men than in women of 54.4%.

Although lingual lipomas are usually detected early and removed, there are cases where they are overlooked and therefore treatment is delayed. In these situations, they can attain enormous dimensions. The larger ones can cause macroglossia, atrophy of tongue musculature, dental abnormalities such as anterior open bite and masticatory difficulties, as well as airway and speech problems. These resultant abnormalities depend not only on the volume, but also the texture of the tongue lipoma. In a few cases, the large tumours were painful or ulcerated probably secondary to trauma.^{17 19 20}

Clinical diagnosis of oral lipoma is not always easy. Where the overlying mucosa is thin and the yellow colour of the tumour appears through it, the diagnosis is easily made. However, in the deep-seated cases, the diagnosis is seldom made

Figure 5 Photograph showing sutured tongue after surgical excision of tumour.

Figure 6 Follow-up photograph.

clinically and the tumours often attain appreciable size before they cause symptoms and their presence recognised. In such situations, other possibilities such as mucocele, haemangioma, lymphangioma, lipoma, neuroma, rhabdomyoma, neurofibroma, fibroma, salivary gland tumour, encapsulated abscess or other benign tumours have to be considered. In this case, the lesion was situated superficially where the overlying mucosa was thin and yellow colour of the tumour appeared through it. Aspiration of the lesion with a fine needle did not produce any aspirate. This indicated that the swelling was solid in nature. Therefore, other lesions like mucocele, haemangioma and lymphangioma were excluded.

Preoperatively, a diagnosis of deep-seated lingual lipoma can be assisted by using non-invasive techniques such as ultrasound, CT scan or MRI, if available. Ultrasound and MRI, unlike CT scan, do not expose the patients to radiation. When CT scan is used, the diagnosis is mainly based on the low mass density of lipomas. This method can be used to differentiate infiltrating lipoma from well-encapsulated lipomas. MRI gives a greater soft tissue definition than CT scan and has greatly improved preoperative definition of lingual tumour boundaries, the degree of vascularity and proximity of these tumours to large vessels and other anatomical hazards.²¹ Definitive diagnosis can only be established by fine-needle aspiration biopsy, incisional or excisional biopsy.

Treatment of lipomas consists of surgical excision, irrespective of the histological subtype. Recurrences are rarely reported.¹⁹

Learning points

- ▶ Lipomas and its variants are common soft tissue tumours, but occur rarely in the oral and maxillofacial region.
- ▶ Lipomas generally grow slowly, because pain is not a feature in many cases, many years elapse before patients consult their dentist or physician.
- ▶ Oral lipomas tend to occur in all ages but are frequently seen after 40 years of age.
- ▶ The larger lipomas can cause macroglossia, atrophy of tongue musculature, dental abnormalities such as anterior open bite and masticatory difficulties, as well as airway and speech problems.
- ▶ Definitive diagnosis can only be established by fine-needle aspiration biopsy, incisional or excisional biopsy.
- ▶ Treatment of lipoma is excision. Recurrences are rarely reported.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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