Lipoma of tongue

John Spencer M. Daniels, BDS, FDSRCS (Eng), FFDRCS (Ire)

مع أن الأورام الشحمية تعتبر الأكثر شيوعاً بين التشكلات الورمية لكنها تشكل حوالي ١٥٪ ــ ٢٠٪ فقط من إصابات الرأس والعنق، وحوالي ١٪ ــ ٤٪ فقط تصيب الحفرة الفموية. تمثل الأورام الشحمية التي تصيب اللسان حوالي ٠,٣٪ من الآفات الحميدة التي تصيب الحفرة الفموية وحوالي ١٣٪ ــ ٢٠٪ من الأورام الشحمية الفموية. وحسب التقارير فإن الأورام الشحمية تحدث في الغالب بعد سن الأربعين. وأوردت بعض التقارير زيادة نسبة حدوثها في الذكور لكن أظهرت الدراسات الحديثة عدم وجود اتفاق إجماعي حول زيادة الإصابة عند أحد الجنسين يتضمن هذا التقرير عرضاً لحالة لورم شحمي في اللسان عند سيدة بعمر ٣٨ سنة.

Although lipomas are among the most common mesenchymal neoplasms, only 15%-20% involve the head and neck and 1%-4% affects the oral cavity. Lipoma of the tongue represents about 0.3% of all benign lesions of the oral cavity and about 13%-20% of all oral lipomas. Oral lipomas are generally reported to occur more frequently after the age of 40 years. Previous reports suggested a higher incidence of oral lipoma in males however current studies show no general consensus in gender predilection. A case of lipoma of the tongue in a 38-year-old female patient is reported.

INTRODUCTION

Lipoma, a benign tumour of the adipose tissue, is one of the most common benign mesenchymal neoplasms in the body. However, its occurrence in the oral cavity is rare. Lipomas of the head and neck represent 15-20% of all lipomas and only 1- 4% affect the oral cavity.[1-3] Oral lipomas account for 0.5 - 7.5% of all benign neoplasms of the mouth and affect predominantly the buccal mucosa, floor of the mouth and tongue.[3, 4] The unusual intraoral sites include the lips, gingivae and palate.[2]

Lipomas of the tongue account for 0.3% of all tumours of the oral cavity [5] and 13%-20% of all oral lipomas.[1, 3] They usually affect the lateral border of the anterior two-thirds region, [6] beneath the mucosa.[7] However, a case of a large lipoma of the ventral aspect of the tongue,[8] and a more extensive case of tongue lipoma with bilateral submandibular involvement [9] have been reported.

Oral lipomas are usually found as long-standing soft nodular swellings covered by normal mucosa.[3] Most lesions usually appear as pedunculated, sessile, or partially submerged single tumours but cases of multiple lingual lipomas have been reported.[1] Lingual lipomas are often more deeply seated than those located elsewhere in the oral cavity.[6]

Generally, oral lipomas have been reported to occur in all ages but are frequently seen after 40 years of age.[1,3,4] Hatziotis,[1] in a review of the literature, 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 women of 54.4%.

A case of lipoma of tongue is reported in a 38-year-old female patient.

CASE REPORT

A 38-year-old female patient was referred from the Military Hospital to the Department of Oral and Maxillofacial Surgery, King Khalid Hospital, Najran, complaining of a painless swelling of the right side of the anterior dorsum of the tongue, of about 2 months duration, which had got bigger in size over a period of time. Her past medical history was unremarkable and she was not taking any medication.

Received 19 March 2005; Revised 20 October 2005
Accepted 26 November 2005
*Consultant Oral & Maxillofacial Surgeon
Regional Dental Centre
King Khalid Hospital, Najran, KSA

Address reprint requests to:
Dr. John Spencer M. Daniels
Regional Dental Centre
King Khalid Hospital
P. O. Box 1120, Najran, KSA
Email: spencer_daniels@yahoo.com

On examination there was a firm, deep, slightly tender swelling on the right side of the dorsum of anterior two-thirds of the tongue, measuring 3 cm x 2 cm. The swelling did not blanch on pressure and had the same colour as the rest of the tongue mucosa.

Since the swelling was deep in the substance of the tongue, the differential diagnosis considered included mucocoele, haemangioma, lymphangioma, lipoma, rhabdomyoma, neuroma, neurofibroma, fibroma and salivary gland tumour.

Aspiration of the lesion with a fine needle did not produce any sample, suggesting that the swelling was a solid tumour. Preoperative investigations gave the following results: haemoglobin 11.6gm/dl, WBC 6.7 x 10^9/l, platelets 299 x10^9/l and normal clotting. Urea, electrolytes and glucose levels were all within normal range.

Under general anaesthesia with nasotracheal intubation, an elliptical incision was made over the swelling and the lump was excised by a combination of sharp and blunt dissection deep into the tongue. The incision was closed in layers and the specimen sent for histopathological examination (Figs. 1 and 2).

The excised specimen measured 2 cm x 1 cm and 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 (Fig. 3).

Post-operative healing has been excellent and there has been no recurrence of the lesion after four years.

Fig. 1. Intraoperative photograph showing dissection of the lipoma from the tongue.

Fig. 2. Section of the dissected specimen showing fatty tissue.

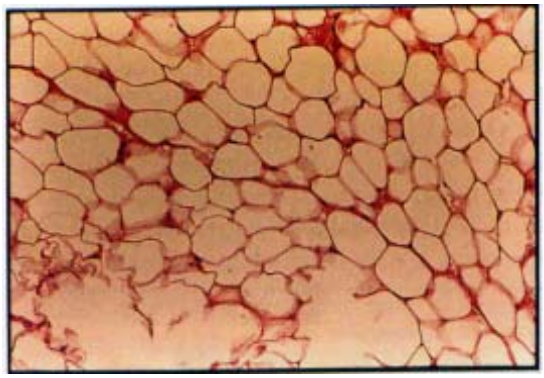

Fig. 3. Photomicrograph showing mature fat cells. Hematoxylin & Eosin stain. Magnifi cation 20x.

DISCUSSION

Lipomas of the oral cavity are rare. Geschickter,[10] in 1934, reported that only 3 cases out of 460 lipomas were

found in the oral cavity. Panders and Scherpenisse,[11] in 1967, described a series of 10 lipomas of the oral cavity but none involved the tongue.

Hatziotis,[1] in 1971, reviewed the entire dental literature over a period of 22 years, from 1945 to1967, and reported only 146 cases of oral lipoma, including one of his own, of which 28 (19%) involved the tongue. Three additional cases of lipoma of tongue were reported by Papanayotou et al. [12] over 15 years from 1965 to 1983. More recently, Fregnani et al.[3] in their review of all oral specimens seen in their Department of Oral Pathology over a 31–year period from 1970 to 2001, found 46 cases of oral lipoma, representing 0.5% of all oral lesions. Of the 46 oral lipomas, 21 cases (45.7%) involved the buccal mucosa, 6 (13%) cases each involved tongue and lips and 5 cases (10.9%) involved the floor of mouth.

Lipomas generally grow slowly and, because pain is not a feature in many cases, many years elapse before patients consult their dentist or physician.[1] The duration of the oral lipoma at the time of presentation ranges from 15 days to 50 years.[1,5,9] However, occasional fast-growing ones have been reported.[7] Majority of oral lipomas rarely grow greater than 2.5 cm in diameter.[2]

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.[5,7,9,13] The larger ones can cause macroglossia,[1,7,9] atrophy of tongue musculature,[7] dental abnormalities such as anterior open bite and masticatory difficulties,[1,9] as well as airway and speech problems.[5,9] These resultant abnormalities depend not only on the volume but also the texture of the tongue lipoma.[7] In a few cases, the large tumours were either painful or ulcerated probably secondary to trauma.[1,9,14]

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 clinically and the tumours often attain appreciable size before they cause symptoms and their presence recognized.[8] In such situations, other possibilities such as a cyst, an encapsulated abcess or other benign tumours have to be considered.

The case reported here shows the difficulty that can be encountered in diagnosing deeply embedded lipoma. The deep position of this lesion suggested other possibilities such as mucocoele, haemangioma, lymphangioma, lipoma, neuroma, rhabdomyoma, neurofibroma, fibroma and salivary gland tumour. However, 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 mucocoele, haemangioma and lymphangioma were excluded.

Histologically, lipomas can be classified as simple lipomas or its variants namely fibrolipomas, spindle cell lipomas, intramuscular or infiltrating lipomas, angiolipomas, salivary gland lipoma, pleomorphic lipomas, myxoid lipomas and atypical lipomas.[3] Although the clinical appearance of colour and tissue consistency may vary with the combination of histologic features, such combinations are not of prognostic significance.[15]

Simple lipoma most frequently occurs in the buccal mucosa and the tongue, followed by the floor of the mouth, buccal vestibule, palate, lips and gingivae.[4, 16] Approximately 80% of the lipomas of tongue comprise the simple type, which is composed exclusively of mature fatty tissue.[17] The remaining 20% shows significant fibrous or vascular component and are classified as fibrolipoma and

angiolipoma, respectively. Occasionally, histological features of both simple lipoma and intramuscular (infiltrating) lipoma have been reported in the same lesion.[9]

Currently, there is no consensus on the gender distribution of oral lipomas. It ranges from male predilection of 54.4% [1] to equal sex distribution,[13, 16] to female predominance of 57.8%.[3, 4] This is in contrast with lipoma of the whole body where the occurrence of lipomas in females is 2 times that of males.[1]

Preoperatively, a diagnosis of deep-seated lingual lipoma can be assisted by using non-invasive techniques such as ultrasound, computed tomography (CT) scan, or magnetic resonance imaging (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.[4] 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 anatomic hazards.[18]

In the case presented here, none of these imaging techniques was deemed necessary in the preoperative assessment since the lesion was small in size and located in a very accessible area of the tongue where there were no anatomic hazards to complicate the surgery.

Definitive diagnosis can only be established by fine needle aspiration biopsy (FNAB), incisional or excisional biopsy.

Treatment of lipoma is excision. Recurrences are rarely reported. [5]

This case reported here occurred on the dorsum of the anterior two thirds of the tongue in a 38-year old female patient and not on the lateral aspect, as usually reported. The lesion was excised under general anaesthesia and the histopathological examination showed that it was a simple type of lipoma. There has been no sign of recurrence four years postoperatively.

REFERENCES

1. Hatziotis J C. Lipoma of the oral cavity. Oral Surg Oral Med Oral Pathol 1971; 31: 511-524.
2. Rapidis AD. Lipoma of the oral cavity. Int J Oral Surg 1982; 11: 30-35.
3. Fregnani ER, Pires FR, Falzoni R, Lopes MA, Vargas PA. Lipomas of the oral cavity: Clinical findings, histologic classification and proliferative activity of 46 cases. Int J Oral Maxillofac Surg 2003; 32: 49-53.
4. Epivatianos A, Markopoulos AK, Papanayotou P. Benign tumors of adipose tissues of the oral cavity: A clinicopathologic study of 13 cases. J Oral Maxillofac Surg 2000; 58: 1113-1118.
5. Roles DM. Lipoma of the tongue. Br J Oral Maxillofac Surg 1995; 33: 196-197.
6. Coghlan K. M. Lipoma of tongue. Oral Surg Oral Med Oral Pathol1983; 56: 29-30.
7. Lekkas C, Van Hoof R. Lipoma of the tongue. Oral Surg 1979; 48: 214-215.
8. Akyol MU, Odzek A, Sokmensuer C. Lipoma of the tongue. Otolaryngol Head Neck Surg 2000; 122: 461-462.
9. Dattilo DJ, Ige JT, Nwanna EJC. Intraoral lipoma of the tongue and submandibular space: Report of a case. J Oral Maxillofac Surg 1996; 54: 915-917.
10. Geschickter CF. Lipoid tumors. Am J Cancer 1934; 21: 617-641.
11. Panders AK, Scherpenisse LA. Oral lipoma. Br J Oral Surg 1967; 5: 37-41.
12. Papanayotou P, Kayavis I, Trigonidis G. Lipomas of the oral cavity: Report of three cases. J Oral Med 1983; 38: 37-39.

13. Seldin HM, Seldin SD, Rakower W, Jarrett WJ. Lipomas of the oral cavity: Report of 26 cases. J Oral Surg 1967; 25: 270-274.
14. Del Castillo-Pardo De Vera JL, Cebrian-Carretero JL, Gomez- Garcia E. Chronic lingual ulceration caused by lipoma of the oral cavity. Case report. Med Oral 2004; 9: 163-167.
15. Gier RE. Yellow conditions of the oral cavity. In: Wood NK, Goaz PW (eds). Differential Diagnosis of Oral and Maxillofacial Lesions, 5th edition. St. Louis: Mosby Year Book Inc., 1997; p. 225-231.
16. Pindborg JJ. Benign neoplasms of the oral cavity. In: Pindborg JJ (ed). Atlas of Diseases of the Oral Mucosa, 4th edition. Copenhagen, Denmark: Munsgaard, 1985, p.108.
17. Guillou L, Dehon A, Charlin B, Madarnas P. Pleomorphic lipoma of the tongue. Case report and literature review. J Otolaryngol 1986; 15: 313-316.
18. Brightman VJ. Diseases of the tongue. In: Lynch MA, Brightman VJ, Greenberg MS (eds). Burket's Oral Medicine, 9th edition. Philadelphia: JB Lippincott Co., 1994; p. 240-298.