



Lipoma with Extraoral Swelling in the Labial Vestibule: Report of a Case

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Abstract

Lipoma is the most common benign neoplasm of the body with rare occurrence in the oral cavity. It represents 1~4% of benign neoplasms of the mouth, which affect the buccal mucosa, floor of the mouth, tongue and lips. We report a case of lipoma in the labial vestibule with extraoral swelling, which could easily be misdiagnosed as an odontogenic abscess. Excisional biopsy in this case revealed well-circumscribed masses, surrounded by a thin fibrous capsule and composed of sheets of mature adipocytes, arranged in a "chicken wire" configuration. After a computed tomography scan, excisional biopsy was done, and there were no recurrence after 5-month follow-up period.

Key words: Lipoma, Extraoral, Labial, Vestibule

Introduction

Lipomas are the most common soft tissue mesenchymal neoplasms with 15% to 20% of the cases involving the head and neck region and they are relatively rare in oral cavity, representing about 1% to 4% affecting the oral cavity[1].

Intraoral lipomas show higher prevalence in males over age 40[2,3]. In most cases the only symptom is a painless, palpable mass. The cheek is the most favored site, followed by the tongue, floor of mouth and buccal sulcus, lip, palate[3].

Soft and yellowish, well-encapsulated mass is the characteristics of intraoral lipoma, but painless swelling can be the only symptom if it lies deep inside the tissue. Therefore, differential diagnosis is important when asymptomatic

swelling occurs in oral cavity[4].

Surgical excision is the modality of treatment and malignant transformation or recurrence is rare[4,5].

Case Report

A 51-year-old, slim man with anti-hypertensive medication was referred for evaluation of a swelling on his inner mucosa of lower lip.

The patient informed that the swelling was recognized a few days ago, and he was free of symptom and any trauma or operative history on the site.

Clinical examination revealed a soft swelling of similar color to the surrounding mucosa measuring 3 cm on the mucolabial fold of right mandibular incisor to premolar area (Fig. 1) with extraoral swelling. But dental panoramic

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view didn't show any specific problem of the affected site, so odontogenic infection was ruled out (Fig. 2).

Therefore, aspiration was done under the impression

of mucocele, but nothing was detected.

The computed tomography (CT) with enhancement revealed decreased radiodensity of fatty mass within the perioral muscle between the right mandibular body and lip, suggesting intramuscular lipoma (Fig. 3). Magnetic resonance imaging was not checked because the final diagnosis of CT confirmed intramuscular lipoma.

Excisional biopsy was performed under local anesthesia on 1 July 2011 (Fig. 4). Yellowish, globular mass covered by a fibrous capsule measuring 38×20 mm was easily dissected *en block* (Fig. 5).

It was far from buccal fat pad, and closely attached to the periosteum of alveolar bone around mandibular lateral incisors to premolar.



Fig. 1. Swelling of labial vestibule.



Fig. 2. Dental panoramic view.



Fig. 4. Excisional biopsy of lipoma.



Fig. 3. Transverse view of computed tomography scan.



Fig. 5. Lipoma with fibrous capsule.

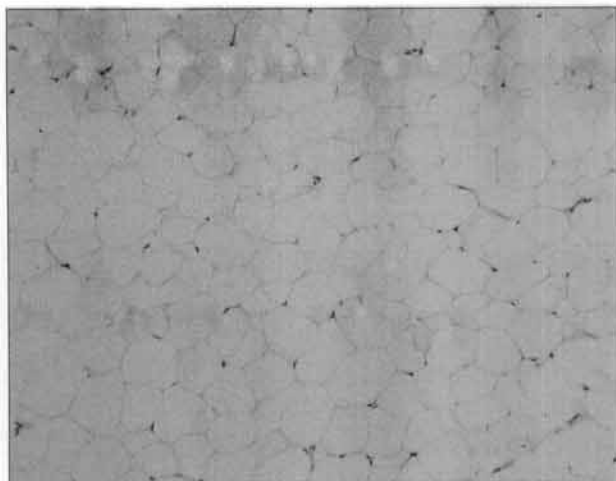


Fig. 6. Microscopic view, mature adipose cells (H&E staining, $\times 200$).

Histological examination revealed thin septa of connective tissue separating lobules of adipose tissue formed by mature, uniform adipose cells (Fig. 6).

The postoperative course was favorable, and there has been no recurrence until 5-month follow-up (Fig. 7).

Discussion

Benign lipomas are the most common mesenchymal tumors of soft tissue, but are relatively uncommon in the oral and maxillofacial region[6]. They occur in adult patients most often between ages of 40 and 60 years[1,5] and the most common location for lipomas in the maxillofacial region has been reported as the buccal mucosa[1,7,8] or the parotid region[6].

Specific anatomic site reported for intraoral lipoma included the 30 cases in parotid region, 29 in buccal mucosa, 21 in lip, 17 in submandibular region, 15 in tongue, 6 in palate, 5 in floor of mouth, and only 2 cases in vestibule of 125 cases[6]. Only 4 patients noted prior trauma of the region and one patient with lipoma in the parotid gland had a Warthin's tumor.

The site predilection is probably related to the availability of adipose tissue, which is high in the buccal mucosa because of the proximity of buccal fat pad and very low in palate[7].

Lipomas are divided into several histologic subtypes such as classic lipoma, fibrolipoma, intramuscular lipoma, minor salivary gland lipoma and spindle cell lipoma, which



Fig. 7. Follow-up after 5 months.

have different proliferative activity[1,6,7].

The diffuse swelling-like appearance with extraoral swelling, unusual location in addition to sudden onset of the mass according to patient's report gave the impression of odontogenic infection or mucocele instead of lipoma[9].

Dental x-ray ruled out an odontogenic infection of mental space, because there was no caries, visible periodontitis nor periapical lesion. Although labial vestibule is the frequent site of mucocele, there was nothing aspirated, which ruled out a mucocele also.

Other soft tissue neoplasms were suspected after clinical examination, therefore CT scan was taken to assess the properties. CT scan revealed a decreased radiodensity of fat attenuation which proved a intramuscular lipoma[10] and it was confirmed after histopathological examination.

The exact cause of lipoma is unknown, but chronic irritation, trauma, hormones, and heredity have been implicated by several investigators[3,11-14], and there appears to be an increased incidence in obese individuals[15]. On the other hand, some authors suppose trauma does not cause the tumor, but contributes to the patient's recognition of pre-existing lipoma, or repeated mild trauma may trigger the proliferation of fatty tissue. But it is noteworthy that a lipoma has never appeared after closure of oro-antral fistula or in midfacial osteotomies where there's a lot of possible trauma with the buccal fat pad. However, lipomas have different metabolism from normal adipose tissue, the higher lipoprotein lipase activity of lipoma compared to normal fat tissue is likely contribute to the growth of tumor[16].

Oral lipomas usually do not show recurrence after conservative surgical excision, irrespective of the histopathologic variant except intramuscular lipomas, where in-

complete surgical excision may result in a high recurrence rate[7]. Secondary changes and atrophy should not be confused with the malignant histologic features of a liposarcoma[6,7].

In this case, intraoral soft tissue mass in the labial vestibule, was misdiagnosed as abscess or mucocele at first[9], but proved a classic lipoma after biopsy although the reason was unclear.

Intraoral lipoma of labial vestibule is rare in its location and extraoral swelling of mentum area in our case made clinicians easily misdiagnose at first sight. Therefore, we present this confusing case with references.

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