

# Diagnosis and treatment of intraoral lipoma: a case report

## *Diagnóstico e tratamento do lipoma intraoral: relato de caso*

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### Abstract

Intraoral lipomas are benign mesenchymal neoplasms that originate in mature adipose cells with differential diagnosis of others soft tissue lesions. The aim of this paper is to present the importance of diagnosis and treatment of intraoral lipoma. Through anamnesis, medical history, preoperative exams, medication and diagnosis of an intraoral lipoma in lower lip of 55 years-old male diabetic, hypertensive and heart disease, present approximately 2 years. The treatment plan was complete surgical excision with excellent prognosis. Clinicians must be able to recognize differential diagnosis, to ensure the comfort, welfare and quality of life of patients.

**Descriptors:** Lipoma/diagnosis; Lipoma/therapy; Mouth neoplasms

### Resumo

Os lipomas intraorais são neoplasias mesenquimais de origem de células epiteliais do tecido adiposo maduro, tendo como diagnóstico diferencial outras lesões de tecido mole. A proposta deste artigo é apresentar a importância do diagnóstico e tratamento do lipoma intraoral. Através da anamnese e avaliação da história médica do paciente, exames pré-operatórios, medicação e diagnóstico do lipoma intraoral na região do lábio inferior de paciente do gênero masculino, 55 anos de idade, diabético, hipertenso, cardiopatia, apresentava uma lesão de aproximadamente 2 anos. O plano de tratamento foi a remoção total da lesão através de biópsia excisional, com excelente prognóstico. Pode-se concluir que os clínicos devem ser capazes de realizar o diagnóstico diferencial, para assegurar o conforto, bem-estar e qualidade de vida do paciente.

**Descritores:** Lipoma/diagnóstico; Lipoma/terapia; Neoplasias bucais

### Introduction

Intraoral lipomas are benign mucosa neoplasm represent 1% to 4% of all benign tumors involved in oral cavity<sup>1-3</sup>. They are composed of mesenchymal adipose cells, covered by a thin mucosa, and can occur in any tissues or organ of body<sup>4</sup>. Their etiology and pathogenesis remain unclear, although mechanical, endocrine and inflammatory influences have been reported<sup>5-6</sup>.

Generally are slow-growing, well-circumscribed, painless soft tissue tumors that may be superficially or more deeply located, but has a malignant counterpart called liposarcoma<sup>1-3</sup>. The most frequent sites of presentation are buccal mucosa, lips, tongue, palate, buccal sulcus and floor of the mouth. Clinical diagnosis is usually apparent, but imaging studies can help to establish the diagnosis on special situations<sup>5,7</sup>.

Lipomas have the principal differential diagnosis of fibromas, which is composed of fibrous tissue and much more firm. And more tumors such as granular cell tumor, liposarcoma, mixed tumors, mucocele, neurofibroma and traumatic fibroma<sup>2-3</sup>.

According to their histopathologic aspects, benign tumors of adipose tissue can be characterized as classic lipoma, fibrolipoma, intramuscular lipoma, spindle-cells lipoma, angioliipoma, salivary gland lipoma (sialolipoma) pleomorphic lipoma, myxoid lipomas and atypical lipomas<sup>2-3,6,8</sup>.

### Case report

A 55-years-old Brazilian male was referred to Dental School Clinic of Paulista University (UNIP-SP), from São Paulo - Brazil. The patient reports that the "ball" in the mouth has been present approximately 2 years, painless and he believes that it has grown significantly in the last few months. Sometimes he traumatize the tissue while eating and this lesion may have become ulcerated, bleeding and with pain. While the complete medical history related diabetic, hypertensive and heart disease with two episodes of acute atrial fibrillation. Medication with Losartan potassium, 100 mg once a day, Ritmonorm, 300 mg in the morning and in the evening,

Propranolol, 40 mg in the morning and in the evening, under control. At the intraoral examination revealed a lesion in the lower lip, soft bosselated nodules that were covered by apparently normal mucosa on the bilateral margin of the lip, mucosa without ulceration and any other change. Appear as soft, yellowish, and the size of the lesion was approximately 2 cm in diameter. Hypothesis diagnosis: lipoma (Figure 1).

Have been requested preoperative routine exams, like complete blood count and coagulation tests, and the patient was able to surgical excision of the lesion. In the pre-surgical preparation was collected the blood glucose test (130) and blood pressure (130 x 90 mmHg). The patient was administered prophylactic antibiotic Amoxicillin 2 g one hour before surgical excision and after surgery 500mg 3 times a day during a week. Were all taken care of biosafety and then held infiltration anesthesia around the lesion, with mepivacaine 3% without vasoconstrictor, followed by incision with a scalpel blade 15, wedge-shaped, giving the margin of the lesion showing the yellowish appearance of the lesion



**Figure 1.** Clinical appearance of the lesion

(Figure 2), to complete surgical resection. After removal of the lesion (Figure 3), the piece was placed in the pot with water where it floated (Figure 4), showing the diagnosis of lipoma front of this peculiarity and clinical evidence, and then the piece was transferred to the formaldehyde solution 10%, and sent to pathological examination, where the material was processed and examined, confirming the diagnosis of lipoma. One-year follow-up showed no evidence of recurrence.



Figure 2. Surgical removal



Figure 3. Complete excision of the lipoma

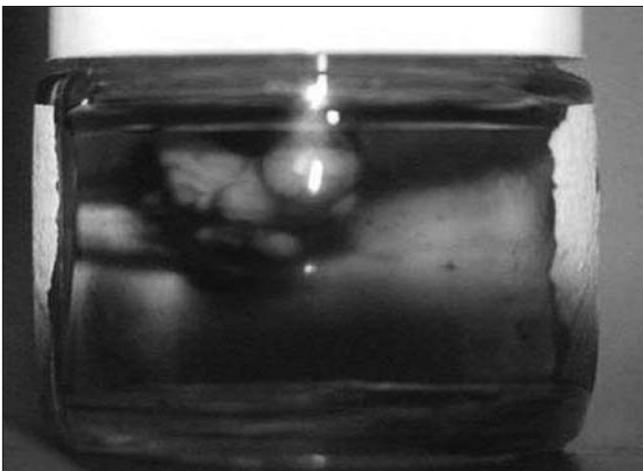


Figure 4. Specimen floating in the pot with water

## Discussion

Lipoma is a benign mucosa neoplasm well-know with differential diagnosis of others soft tissue pathologies. Although there is no difference in the election treatment plan which consists of complete

surgical removal of the lesion with excisional biopsy<sup>6,8</sup> and this case report occurred after the complete excision of lipoma after preoperative exams.

They are benign mesenchymal tumors that originate in mature fat cells, relatively rare in the oral cavity compared with other lesions. Generally are well-circumscribed nodule and encapsulated may be present in any region of oral cavity, however the buccal mucosa is the most prevalent followed by the tongue, lower lip and mouth floor<sup>2-3,6</sup>. In this present case lipoma was in the lower lip and in many studies is the second or third most prevalent area.

Freitas *et al.*<sup>6</sup> (2009) reviewed 26 cases of intraoral lipomas, classic lipoma was the most common in 15 cases, followed by fibrolipoma in 7 cases. In a review conducted in a Brazilian population by Fregnani *et al.*<sup>4</sup> (2003), classic lipomas followed by fibrolipomas represent the lesions most commonly diagnosed among intraoral lipomas. However, Furlong *et al.*<sup>9</sup> (2004) encountered a similar frequency of lesions accompanied by other benign lipomatous tumors.

The classification of these lesions establishes the following subtypes: lipoma, fibrolipoma, intramuscular lipoma, salivary gland lipoma<sup>10</sup>, spindle-cells lipoma e intraosseous lipoma<sup>11</sup>. Spindle-cell lipoma is a relatively uncommon benign lipomatous tumor, with few cases reported in literature<sup>12-13</sup>. Said-Al-Naief *et al.*<sup>13</sup> (2001) identified only two cases of this subtype in a revision of 164 intraoral lipomas cases, confirming the low prevalence of this subtype.

Lipomas in some cases may be part of congenital alterations. An extremely rare form of intraoral lipoma was described by Mahabir *et al.*<sup>14</sup> (2000) where the lesion was found associated with congenital cleft palate. Another case of congenital lesion was described by Perri de Carvalho *et al.*<sup>15</sup> (1987) of a 7 years-old boy in the region of upper labial frenum, in this case the treatment eliminated the habit of sucking the lesion and eventually resulted in adjacent teeth eruption.

The histopathological features are a tumor composed of adipose tissue involved well-differentiated connective tissue capsule. Although morphologically cannot be differentiated from normal fat cells, lipoma cells have faster metabolism. Sometimes the capsule may be missing or broken<sup>16</sup>. When the connective tissue is a significant part of the lesion begun to be fibrolipoma<sup>2,4</sup>.

## Conclusion

Intraoral lipoma was a benign neoplasm with low prevalence in the oral cavity, clinicians must be able to recognize differential diagnosis and the correct treatment, surgical excision, to ensure the comfort, welfare and quality of life of patients.

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