

## Massive Growth of an Intraoral Lipoma

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### Abstract

**Aim:** The aim of this report is to present a case of one of the largest intraoral lipomas reported in the literature along with a description of its management in an outpatient clinic setting.

**Background:** Lipoma, a benign tumor of adipose tissue, is rarely seen in the oral cavity. When it does occur it is usually found in the cheek or tongue, followed by the lip, gingival, and floor of the mouth. The lesions appear as asymptomatic, freely movable masses. Size of the lesions varies from 3 to 50 mm with an average of 20 mm.

**Report:** A 71-year-old male with a movable and huge mass located in the buccal mucosa region, which was first noticed approximately 25 years earlier, was referred to the Maxillofacial Surgery Clinic at the Universidade Federal do Paraná. A clinical diagnosis of lipoma was established, and the treatment consisted of complete excision of the mass under local anesthesia.

**Summary:** Although some larger oral masses are better managed surgically at hospital facilities, the present case was treated with local anesthesia with no complications. The lesion evolution and clinical characteristics precluded an incisional biopsy so the excisional surgical approach was used.

**Clinical Significance:** This case report emphasizes the slow growth and benign characteristics of oral lipomas. Even though the lesion presented with a remarkable size, surgical management could be conducted on an outpatient clinical basis.

**Keywords:** Lipoma, oral cavity, oral medicine

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## Introduction

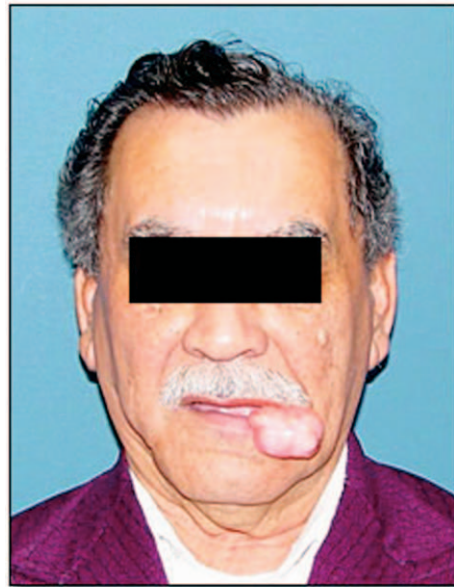
Lipoma is a benign tumor composed largely of adult fat tissue. Although it is one of the most common of all benign neoplasms in humans, it is rarely seen in the oral cavity.<sup>1</sup> Orofacial lipomas are usually found in the cheek and tongue and can also develop in the lip, gingiva, and floor of the mouth.<sup>2</sup> Simple lipomas have no gender predilection and can occur in all age-groups with a higher frequency after 40 years old.<sup>3</sup>

The time of development of the tumor prior to diagnosis is often unknown but has been reported to vary from two months to 21 years.<sup>4</sup> The size of the tumor depends on the lesion's location but rarely exceeds 25 mm in diameter.<sup>5</sup> Lipomas are freely mobile in relation to surrounding tissues and clinically can have a semi lucent yellow color because the overlying epithelium is usually thin. In some cases it is possible to observe superficial blood vessels. The consistency varies from soft to firm, depending on quantity and distribution of fibrous tissue and tumor's depth.<sup>6</sup> A sensation of fluctuation may be recognized in these tumors. Clinical behavior is usually slow growing with rare recurrence after surgical treatment, thus, the prognosis of these benign tumors is considered good.<sup>7,8</sup> Histologically, they can be classified as simple lipomas or its variants, such as fibrolipomas, spindle cell, intramuscular, vascular, salivary gland, pleomorphic, myxoid, and atypical lipomas.<sup>9</sup>

## Case Report

A 71-year-old male patient was referred to the Universidade Federal do Paraná Stomatology and Maxillofacial Surgery outpatient clinic, Curitiba, Brazil, with a movable mass located in buccal mucosa region which was first noticed approximately 25 years earlier. The patient looked for treatment only because he lost his lower denture and wanted a new one. The patient reported a history of allergy to penicillin, type II diabetes, and controlled hypertension. Extraorally, the patient had no detectable swelling. Because of the pedunculated aspect of the mass, the patient could move the mass extraorally (Figure 1).

Intraoral examination revealed an asymptomatic mass located in the left buccal mucosa (Figure 2) measuring approximately 80 mm in diameter,



**Figure 1.** Extraorally view of the mass at first consultation.



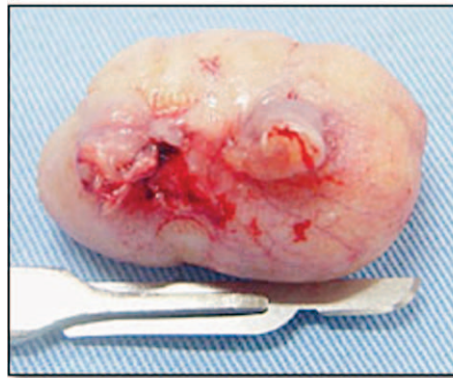
**Figure 2.** A pedunculated soft nodular lesion covered by normal tissue of the left buccal mucosa in a 71-year-old man clinically diagnosed as lipoma.

movable, well-circumscribed, and covered by normal appearing tissue (Figure 3).

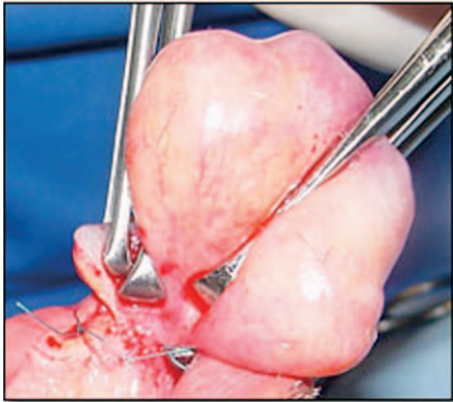
Many Fordyce granules were apparent around the mass. There were no external swellings visible on the face or neck and no lymph nodes were palpable. A provisional clinical diagnosis of oral lipoma was established. The lesion was removed with an excisional biopsy under local anesthesia. The main capillary vessels, responsible for nutrition of the lesion, were sutured previously



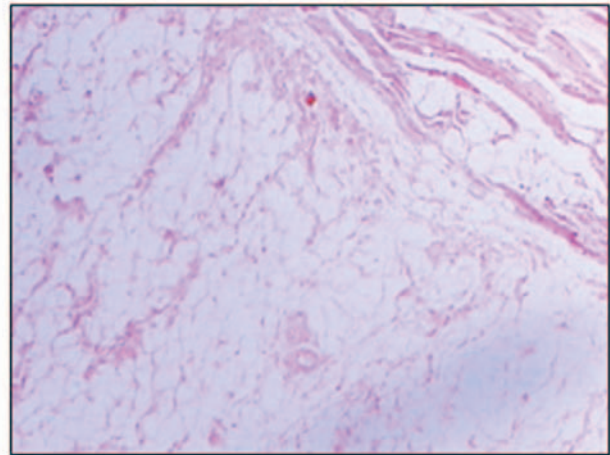
**Figure 3.** Lipoma of the buccal mucosa manifesting as a large and pedunculated mass.



**Figure 5.** View of surgical specimen, measuring 50 x 30 x 28 mm.



**Figure 4.** During surgical excision the mass was removed with careful dissection.



**Figure 6.** Microscopic view of the simple lipoma: a circumscribed neoplasm constituted by mature adipose tissue surrounded by spindle-cells and fibrous component (hematoxylin and eosin stain).

to total excision. The mass was removed with careful dissection and incision line was closed with interrupted silk sutures (Figure 4).

The specimen was fixed in 10% formalin and submitted for microscopic evaluation. At gross specimen examination, the specimen showed an elliptical firm surgical fragment, light brown to white measuring 50 x 30 x 28 mm in diameter (Figure 5).

A cut section was done and the specimens revealed a fat solid mass that was ill-defined. Sections for microscopic examination were made at thicknesses of 3  $\mu$ m and were stained with hematoxylin and eosin (H&E). The histopathological analysis showed a circumscribed neoplasm constituted by mature adipose tissue surrounded by spindle-cells and a fibrous component. Cellular atypia were absent (Figure 6).

Final microscopic diagnosis confirmed clinical diagnosis of simple lipoma. No recurrence was observed after three years follow-up (Figure 7).

### Discussion

Lipomas may occur anywhere in soft tissues of the mouth and in all age groups.<sup>10</sup> Some authors<sup>4,11</sup> report that men and women are equally affected. Others<sup>3,5,6</sup> report the incidence of these tumors is twice as high in women as in men. However, considering oral lipomas only, a higher incidence among men than women has been found.<sup>2,6,12</sup>

The published literature concerning oral lipomas has shown a variable distribution of these tumors but approximately half were related to the cheek. The remainder were found distributed in the tongue, floor of the mouth, lips, palate, and





**Figure 7.** No recurrence and normal appearing mucosa (with Fordyce granules) after three years of follow-up.

gingiva. It is interesting to note that half of tumors found in cheeks were located in linea alba,<sup>6</sup> similar to the clinical presentation in this report. Trauma may contribute to the patient's discovery of a pre-existing asymptomatic lipoma rather than being the cause of it.<sup>5</sup>

Oral lipomas often exhibit capillary vessels in the overlying mucosa,<sup>6,15</sup> such as in this case report. The average reported duration of a lipoma was five years with a range from 15 days to 30 years,<sup>9</sup> while others have reported the duration of tumor before diagnosis is often unknown.<sup>4,13</sup>

Lipomas vary in size from 3 x 3 mm to 25 x 20 mm, with most measuring less than 10 mm in diameter.<sup>13</sup> An extensive review of the literature reported 145 oral lipomas.<sup>1</sup> In the majority of these cases the mean size was 20 mm. In that

study a 60 mm lipoma was reported in the floor of the mouth. Other large lipomas were reported with sizes of 51 x 63 mm in a buccal vestibule, 80 x 50 x 40 mm in floor of the mouth, and the largest, 100 x 70 mm, found in the hard palate. Tumors found in the hard palate were the largest with a mean size of 60 mm.<sup>12</sup> In the cheek the largest lipoma reported was 40 mm x 20 mm x 15 mm. Another study, with eleven cases, found the largest lipoma was 50 mm.<sup>14</sup> In a report of 125 cases, the mean tumor size was 22 mm with the largest being 70 mm found in the cheek.<sup>12</sup> The case presented in this report presents with an unusual size lipoma in the cheek. This lipoma, with an 80 mm diameter, is one of the largest cheek lipomas reported in the oral medicine literature.

Prognosis is good for this patient, despite delayed diagnosis and treatment<sup>6</sup> consisting of incisional biopsy and surgical excision, respectively.<sup>13</sup> In the present report, surgical excision was done immediately with posterior histological analysis. Recurrences are rarely reported, and in the present case there has been no recurrence after almost three years follow up.<sup>6</sup>

### Conclusion

Lipomas found in the oral and maxillofacial region are usually slow growing lesions. The clinical course is usually asymptomatic until they get large in size. This case report showed one of the largest lipomas of the cheek ever reported. Evolution, size, and clinical outcome reported in the present case reinforce the benign features of oral lipomas.

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