

## Extensive lipoma in chin region. Case report

*Extenso lipoma em região mentoniana. Relato de caso*

Carlos Victor Ferrreira BISSONHO<sup>a</sup>, Bruno Gomes DUARTE<sup>b</sup>,  
Pedro Henrique Mattos de CARVALHO<sup>b</sup>, Leonardo Tavares PEIXOTO<sup>a</sup>

<sup>a</sup>UNIFLU – Centro Universitário Fluminense, Campos dos Goytacazes, RJ, Brasil

<sup>b</sup>HFB – Hospital Federal de Bonsucesso, Rio de Janeiro, RJ, Brasil

### Resumo

**Introdução:** Os lipomas consistem em tumores benignos com origem mesenquimal que podem ser observados nos locais onde, normalmente, têm-se a presença de tecido adiposo. A localização mais comum para estas lesões consiste no tronco e na porção terminal das extremidades, sendo, porém, possível a ocorrência destas lesões na cavidade oral. **Objetivo:** O presente trabalho visa realizar uma breve revisão de literatura sobre os LO, bem como relatar um caso clínico. **Material e método:** No presente trabalho foi realizado o tratamento cirúrgico de um paciente com aumento de volume em região de mucosa jugal. **Resultado e conclusão:** O presente trabalho apresenta um caso clínico de um lipoma bem como o tratamento satisfatório do caso sem recidiva da lesão.

**Descritores:** Cirurgia oral; lipoma; patologia bucal.

### Abstract

**Introduction:** Lipomas consist of benign tumors of mesenchymal origin that may be found in locations where adipose tissue is normally present. The most common locations for these tumors are the trunk and the end-points of the extremities. However, these tumors may occur in the oral cavity. **Objective:** The present study conducts a brief review of the literature on oral lipoma (OL) and reports a clinical case. **Material and Method:** Surgical treatment of a patient with swelling in the region of the jugal mucosa was performed for the present study. **Result and conclusion:** The present study presents a clinical case of a lipoma, as well as the satisfactory treatment of the case with no recurrence of the tumor.

**Descriptors:** Oral surgery; lipoma; oral pathology.

## INTRODUCTION

Lipoma may be classified as a benign neoplasm<sup>1,2</sup> that affects soft tissue<sup>2</sup>. This tumor is related to mature adipose tissue<sup>1,2</sup> where it is commonly found in the mesenchymal region, according to the WHO classification<sup>1</sup>. Lipomas represent the most common mesenchymal tumors and are found in regions in which adipose tissue is normally present<sup>3</sup>.

Occurrence of lipoma in the oral and maxillofacial cavity is rare<sup>4-6</sup>; the frequency reported in the literature on oral lipoma (OL) is between approximately 1<sup>5</sup> to 5%<sup>6</sup>. These tumors can attack the tongue, lips, gingiva, floor of the mouth, salivary glands and oral mucosa<sup>1-6</sup>. Most OL are composed of mature fat cells, presenting as well-defined and covered by a thin, fibrous capsule<sup>4</sup>. Among the microscopic variations most commonly found are: classic lipoma, fibrolipoma, spindle cell lipoma, angioliipoma, salivary gland lipoma, and pleomorphic or atypical lipoma<sup>4,5</sup>.

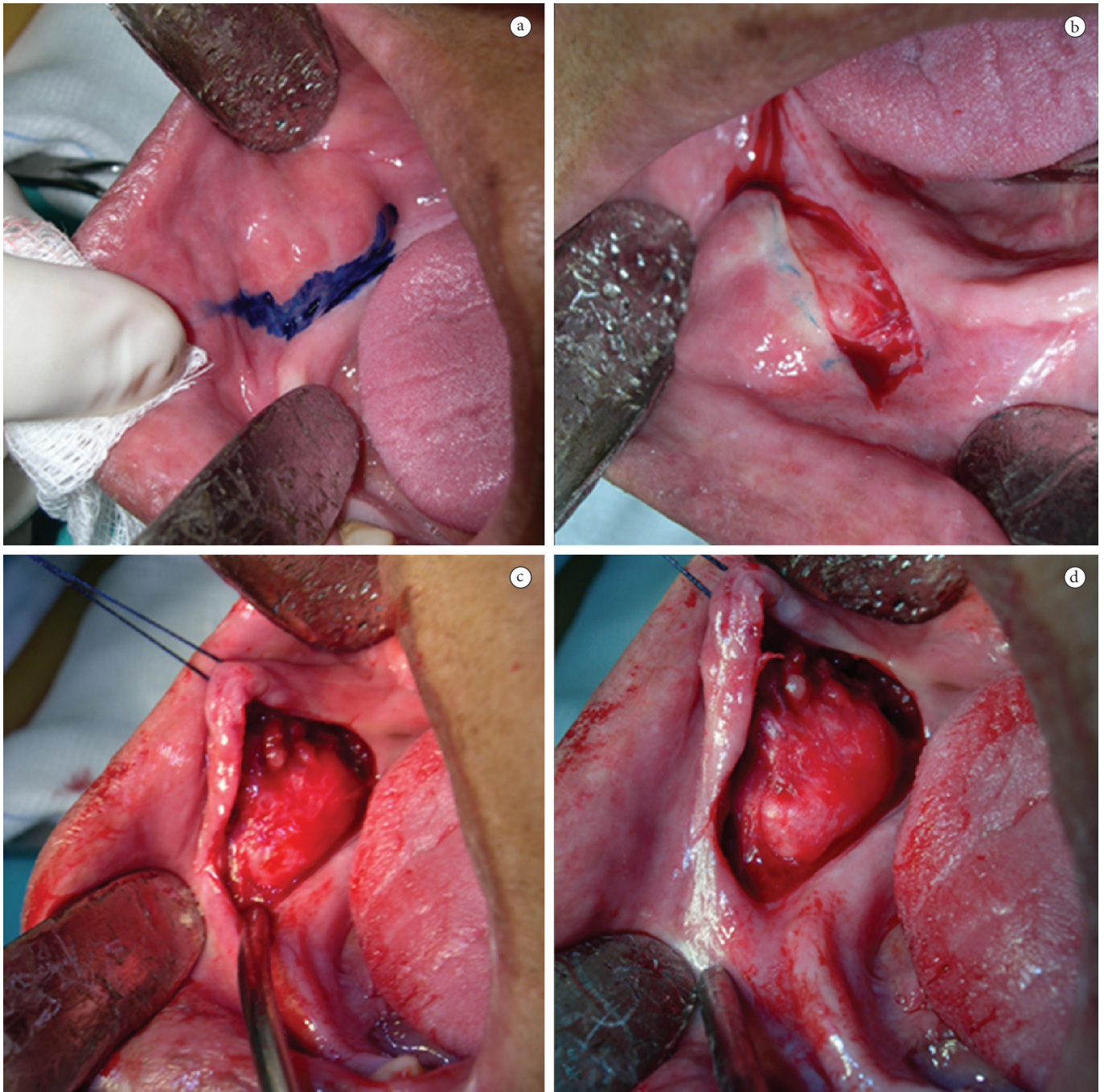
The purpose of the present study is to report a clinical case of a very extensive intra-oral lipoma, located in the mentonian region; also, to conduct a review of the literature about this tumor.

## CASE REPORT

The patient, a 62 year old woman with the primary complaint of swelling in the posterior region of the left mandible, approximately 2 years of asymptomatic clinical development, reporting paresthesia on the left side of the lower lip, as well as ipsilateral jugal mucosa. The patient claims no history of smoking, alcohol consumption or other clinically relevant situations. During the extra-oral evaluation there were no clinical signs of swelling. The intra-oral clinical exam revealed the absence of all upper and lower dental elements, the presence of significant swelling in the posterior region of the left mandible extending to the region of the jugal mucosa, no signs of inflammation, the tumor was flaccid to palpation and had well-defined boundaries (Figure 1).

The patient reported previous surgery at the site to perform a biopsy, and the result of the histopathological examination was lipoma. The proposed treatment was the surgical removal of the tumor under local anesthesia in an ambulatory setting.

After blocking the buccal and inferior alveolar nerves, local infiltration was also performed to improve hemostasis. An incision was made in the region immediately below the tumor,



**Figure 1.** a. Intra-oral view, showing swelling in the region of the alveolar edge and defined limits of the tumor. b. incision on the lower limit of the tumor. c. after dilatation and access to the tumor. d. access to the tumor.

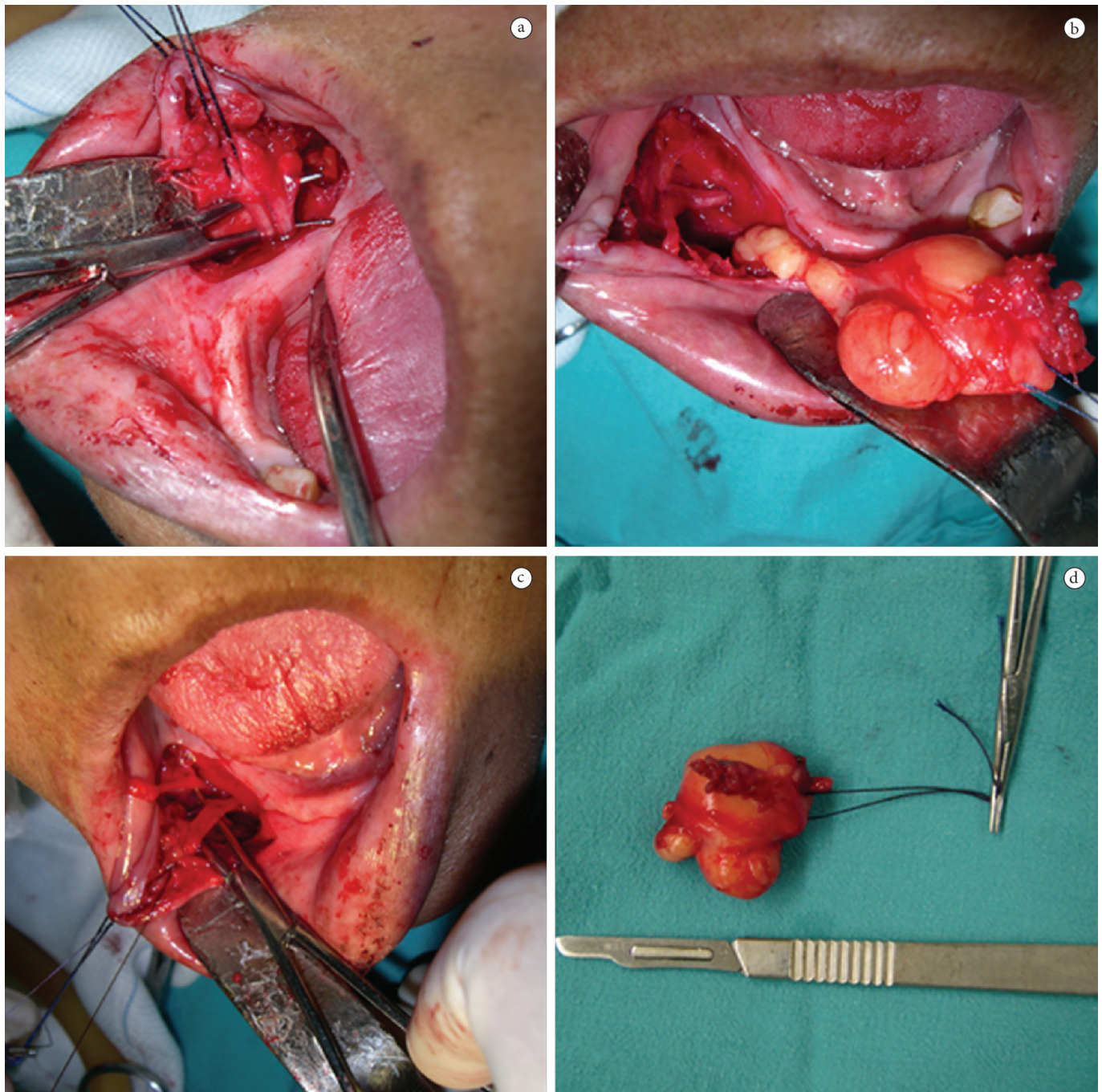
in the region of the oral vestibule. This was held open such that it was possible to locate the mentonian nerve, thereby enabling the dissection and the lesion. After, muscle adhesions related to the tumor were separated and excised (Figure 2).

Macroscopic examination revealed a nodular tumor with yellowish coloring, similar to adipose tissue (Figure 2). Microscopic examination revealed the presence of adipose cells, which diagnosis is compatible with lipoma (Figure 3).

During post-operative clinical follow-up after 14 days, local scarring and absence of signs of recurrence of the tumor were found (Figure 4). During the clinical examination, the patient showed improvement in respect to the area of paresthesia.

## DISCUSSION

The first report of OL was made by Roux in 1841<sup>7,8</sup>, in which an alveolar mass was reported which was referred to as “yellowish epulis”<sup>8</sup>. Lipomas are mesenchymal tumors found most frequently in soft tissue, but also occurring rarely in the mouth<sup>2</sup>. According to the 2002 WHO classification, lipomas usually present as asymptomatic tissue tumors, except for cases in which their location is related to compression of nerve structures<sup>1</sup>. This same symptom was reported in this clinical case, where improvement in pain was obtained following removal of the tumor from the region of the mentonian nerve.



**Figure 2.** a. Location and dilatation of the mental nerve; b. removal of the tumor; c. preserved mental nerve; d. removed tumor.

Microscopically, it is not possible to distinguish normal adipose tissue from lipomas; however, metabolic differences are found due to the fact that lipomas are not used as a form of energy, as happens with normal adipose tissues. This fact is related to the activity of the lipoprotein lipase which is notably greater in lipomas<sup>5,6,9</sup>. Lipomas may be classified as classic and variants, according to the amount and type of tissue found. These variants may be angioliipoma, chondrolipoma, myoliipoma and pleomorphic lipoma, each with specific clinical and histological characteristics<sup>2,4</sup>.

Fibrolipomas are characterized by the fibrous component mixed with adipose cell lobes: hamartomatous tumor, diffuse proliferation<sup>4</sup>. Angioliipoma consists of a mixture of mature

adipose tissue and small blood vessels. Myxoid lipomas contain mucus inside. Spindle cell lipomas contain spindle cells, whereas pleomorphic lipomas are characterized by the presence of spindle cells and giant hypercolored cells<sup>4</sup>.

Fregnani et al.<sup>10</sup> conducted a study of the clinical presentation of 46 cases of oral lipomas, with most of the cases found in adult patients, with no gender preference, and most of the cases found in the oral mucosa (21 cases), tongue (6 cases) and the floor of the mouth (5 cases). Histological evaluation revealed the presence of 21 cases of lipomas, 18 fibrolipomas, 4 intramuscular lipomas, 2 minor salivary gland lipomas, and 1 case of spindle cell lipoma. All cases were treated surgically, with no signs of recurrence after one year of post-operative follow-up.

In a survey of 125 cases of OL, most cases were found in male patients (91 cases), most were found in patients between 52 years old, and 04 cases were found in pediatric patients. In regard to location, 30 cases were found in the parotid gland, 29 in the oral mucosa, 21 in the lips, 15 in the submandibular region, 15 in the tongue, 6 in the palate, 5 in the floor of the mouth, and 2 in the buccal vestibule. Most of the patients presented asymptomatic growth. The tumors were classified histologically as lipomas (62 cases), spindle cell lipomas (59 cases), fibrolipomas (2 cases) and chondrolipomas (2 cases).

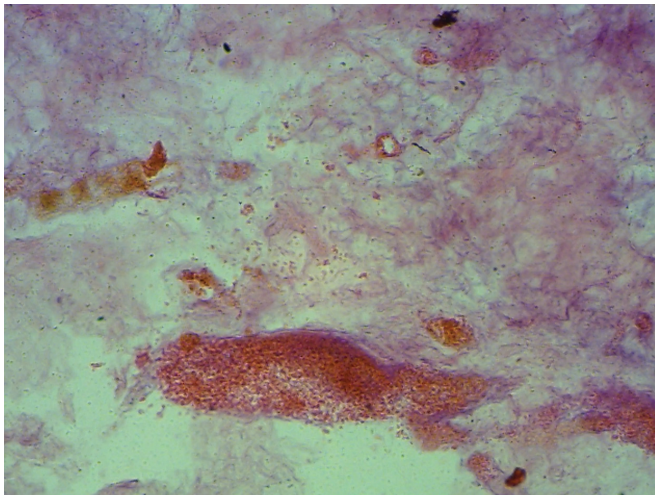
Zhong et al.<sup>3</sup> evaluated lipomas in the maxillofacial region using ultrasonography in a study conducted with 22 patients. The mean age of the patients was 47 years, most of the patients were men, and the submandibular region was the most frequent location of these tumors. The ultrasonography of these patients revealed the presence of elliptical tumors, covered with an intact

or partially intact capsule, having interiors with hypoechoic images. All patients were treated with surgical excision, and no recurrence was found in any cases.

In a study involving 58 cases of OL, Manor et al.<sup>5</sup> found no gender preference, with the mean age of the patients at 59 years. Regarding the location of these tumors, most of the cases were found in the region of the oral mucosa (31 cases), tongue (10 cases), lips (6 cases), floor of the mouth (6 cases) and the buccal vestibule (5 cases). Most of the patients complained of asymptomatic swelling. Histological analysis revealed the predominance of lipomas (28 cases), followed by fibrolipomas (19 cases), intramuscular lipoma (4 cases), spindle cell lipoma (3 cases), minor salivary gland lipoma (2 cases), and angiolipoma (2 cases). All cases were treated by surgical excision and no complications or recurrences were found during post-operative follow-up.

According to the latest WHO<sup>1</sup> classification, lipomas most frequently affect patients between the ages of 40 and 60 years, and are most common in obese patients. According to the same classification, location in the intra-oral region is found in a small number of cases in the literature.

The present study shows the presence of lipoma in the oral region, specifically in the region of the oral mucosa. This fact emphasizes that this is the most common location for this tumor and the age range of the patient is also within the data in the literature. Only the gender is contradicted in the literature, since some studies emphasize the predominance of cases in male patients, while others reiterate the absence of gender preference in cases of OL. The tumor was treated surgically in the present clinical case, as this is the treatment proposed in the literature with no reports found for recurrence of the tumor. In the present study, a 6-month post-operative follow-up found appropriate local healing and no signs of recurrence of the tumor.



**Figure 3.** Histopathological image showing the presence of adipose cells.



**Figure 4.** a. Suture of the region; b. 14-day post-operative view.

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## CONFLICT OF INTEREST

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The authors declare no conflicts of interest.

## CORRESPONDING AUTHOR

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Carlos Victor Ferreira Bissonho

Departamento de Cirurgia BucoMaxilofacial, Hospital Federal de Bonsucesso, Av. Londres, 616, Prédio 4, 6º andar, Bonsucesso, 21041-030 Rio de Janeiro - RJ, Brasil

e-mail: victorbissonho@gmail.com

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