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Lipoma on the jugal mucosa: Case report

Lipoma em mucosa jugal: Relato de caso

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ABSTRACT

Lipoma is classified as a neoplasm of mesenchymal origin, considered one of the most common of the soft tissues. In the maxillofacial region, it is relatively rare, with an occurrence of 1% to 4% of the tumors that affect this region. The most common sites of intraoral lipoma are the jugal mucosa, lips, tongue and lingual floor. The relevance of the case is due to the location of the lesion in the jugal mucosa and the proximity to important vessels such as the facial artery, the objective of this report is to describe the treatment and management of a lipoma in the oral cavity. A 50-year-old female patient was referred to the Oral and Maxillofacial Surgery and Traumatology Outpatient Clinic of UFBA/OSID complaining of "removing a lipoma on the face". On clinical examination, the patient presented a good mouth opening with an increase in volume that was hardened on palpation in the asymptomatic right-sided jugal mucosa. Imaging (magnetic resonance imaging) showed an increase in volume in the region of the right jugal mucosa. During the transsurgical procedure, a lesion with a size of approximately 04 cm in length, with a yellowish appearance, encapsulated and of lower density when compared to 10% formaldehyde, was observed. An excisional biopsy was performed and referral for anatomopathological examination, which was conclusive for lipoma. The patient is under postoperative follow-up, evolving well, with no signs of recurrence. Treatment of lipoma is performed with surgical excision and complete removal of the lesion. Thus, the diagnostic correlation with the patient's clinical signs and the anatomopathological examination are essential for the correct diagnosis.

Keywords: Lipoma, Neoplasm, Pathology, Case report.

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INTRODUCTION

Lipoma is a benign neoplasm of mesenchymal origin of varying size that can occur in different parts of the body. About 20% of lipomas occur in the head and neck region, and only 1–4% involve the oral cavity.[1]

The most affected regions of the oral cavity are the tongue, floor of the mouth, palate, parotid region, lips and oral mucosa. It is more common in individuals over the fourth decade of life and has no gender predilection, being quite rare in children.[2]

The etiology and pathogenesis remain unclear, although some factors may influence its onset, such as trauma, endocrinometabolic conditions, and local inflammations. [3, 4]

Hereditary and chromosomal abnormalities have been cited in some cases as a possible cause, these alterations being rearrangements of chromosomes 12q, 13q and 6p.[5]

Lipomas can be found at different depths within a tissue, but they are always encapsulated, and can present with a sessile, pedicled or submerged base. They usually occur as solitary lesions and can range from small, well-rounded lesions to large, ill-defined, lobulated masses.[6, 1]

The treatment of lipomas in the oral cavity consists of simple local surgical excision. Although the growth of these lesions is not infiltrative, they can reach large dimensions, interfere with speech and chewing, reinforcing the need for complete excision. Recurrence is reduced by extensive surgical excision. The malignant alteration is practically non-existent, and few cases have been reported. [5]

The objective of this article is to report the case of a lipoma in the oral cavity of a patient treated at the Oral and Maxillofacial Surgery and Traumatology Service of the Manoel Victorino Hospital, discussing its clinical and radiographic aspects and its implications in the choice of treatment as well as the patient's prognosis.

CASE REPORT

A 50-year-old female melanoderma patient presented to the Oral and Maxillofacial Surgery and Traumatology Outpatient Clinic of UFBA/OSID, presenting the main complaint "a lump growing on the cheek". The patient had an increase in hardened volume in the region of the right jugal mucosa, with 01 year of evolution, asymptomatic and with no previous history of trauma at the site. During anamnestic examination, the patient reported having diabetes in continuous use of metformin 800mg 01x day, atorvastatin 20mg 01x day and denies drug allergies.

Extraoral physical examination revealed facial asymmetry with increased volume in the right

oral region.

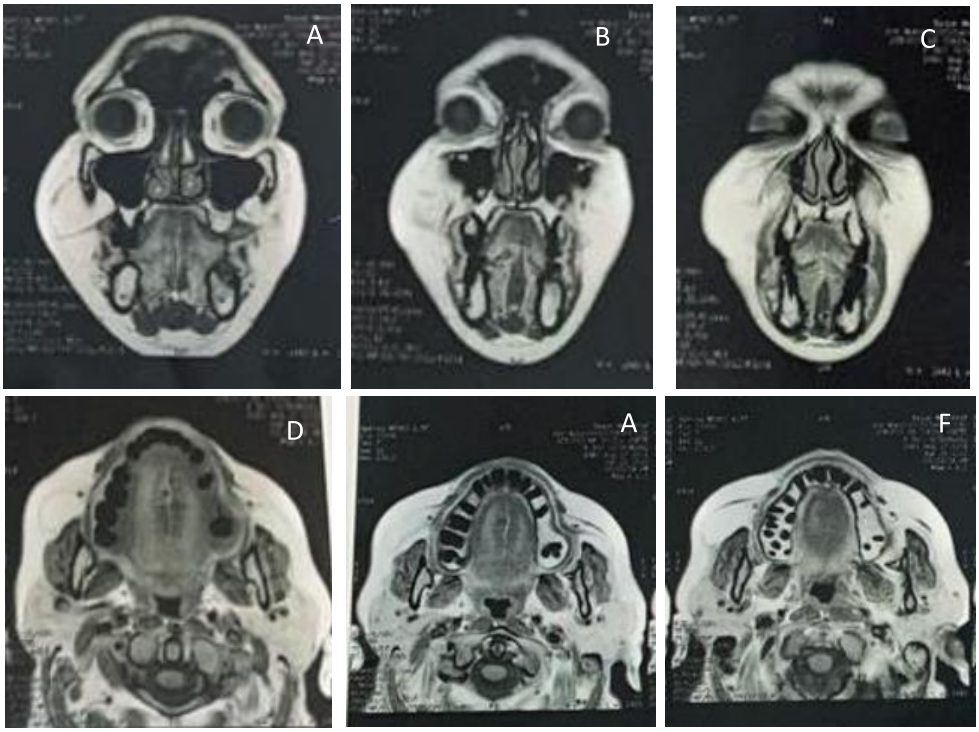
Figure 01: Preoperative extraoral photos. (A) Frontal photograph. (B) Profile picture on the left side. (C) Right-hand side profile picture.

Intraoral physical examination revealed an increase in volume in the region of the right jugal mucosa with approximately 02 cm in diameter, hardened on palpation, asymptomatic, mucosa was normal in color and without signs of infections or inflammatory processes, and the patient also had satisfactory mouth opening.

Figure 02: Preoperative intraoral photos. (A) Photograph of right-sided dental occlusion. (B) Photograph of dental occlusion in frontal view. (C) Photograph of left-sided dental occlusion

A T1- and T2-weighted magnetic resonance imaging was then requested for better visualization and investigation of the lesion in question. Signs suggestive of a lesion in the right oral region were observed on the images, and on T2-weighted MRI, a hypersignal structure of approximately 4 cm in diameter was seen.

Figure 03: (A, B and C) Coronal sections. (D, E and F) Axial Cuts



The initial diagnostic suspicion was lipoma, so the proposed treatment was complete enucleation of the lesion under general anesthesia for subsequent anatomopathological diagnosis.

The approach of choice for the surgical approach to the lesion was intraoral, with an incision in the region of the right jugal mucosa of approximately 05 cm, followed by dissection and excision of the lesion. In the transsurgical procedure, a lesion with a good cleavage point, yellowish in color, and softened consistency was noted, and when immersed in 10% formaldehyde, it was observed that it had a lower density. The surgical wound was sutured with Vicryl 4-0© and the specimen was sent for anatomopathological examination, which was conclusive for lipoma.

Figure 04: (A) Lesion being exposed in the oral cavity. (B) Totally removed lesion measuring approximately 4 cm long x 2.5 cm wide. (C) Lesion stored in 10% formaldehyde.

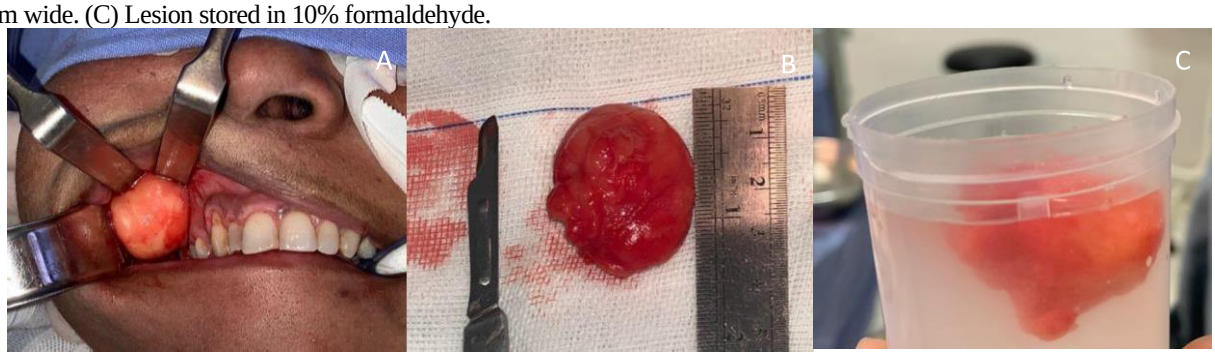


Figure 05: Extra-oral postoperative photos of 06 months. (A) Frontal photograph. (B) Profile picture on the left side. (C) Right-hand side profile picture.

Figure 06: Postoperative intraoral photos of 06 months. (A) Photograph of occlusion in frontal view. (B) Photograph of the open mouth. (C) Photograph of the right-sided occlusion. (D) Photograph of left-sided occlusion

DISCUSSION

Lipomas are adipose mesenchymal tumors that involve 15 to 20% of cases in the head and neck region and only 1-4% affect the oral cavity, do not have a predilection for sex, and can affect men and women in equal proportions. The first description of the lesion was made in 1848 by Roux, where he described the lipoma as "yellowish epulis". In the reported case, the patient was at an age compatible with the findings in the literature for age prevalence. [5.7]

These tumors are slow-growing, painless, soft, circumscribed, and associated with submucosal nodules with a sessile base or a pedicled base. The color of oral lipomas ranges from yellow to pink, depending on the depth of the lesion. [8]

Lipomas are associated with chronic inflammatory stimulation, trauma, heredity, family

history, and are correlated with diabetes, corroborating the reported case in which the patient had diabetes. It is known that patients in hyperglycemic conditions can cause mutations in mitochondrial DNA, which can be both a direct and indirect cause of disturbances in the maturation process of adipocytes. [9]

In addition, the hypertrophy theory created by Gupta and his collaborators reported that obesity and local growth of adipose tissue may be responsible for the formation of a lipoma.[9]

Imaging tests such as ultrasonography show that these tumors are lower in reflectivity than the adjacent muscle and more reflective than the subcutaneous tissue, and computed tomography may also be requested if there is a suspicion that the lesion is intraosseous. Magnetic resonance imaging was requested as a complementary test because, in addition to reinforcing the diagnostic hypothesis, it accurately shows the limits of the tumor, vascularity and proximity to critical anatomical structures. [11.10 AM]

The differential diagnosis of intraoral lipoma consists of oral dermoid and epidermoid cysts, oral lymphoepithelial cyst, benign salivary gland tumor, mucocele, benign mesenchymal neoplasm, ranula, ectopic thyroid tissue, and lymphoma. [8]

Incisional biopsy is indicated when the lesion is large and excisional biopsy is advised if the lesion is small or as in this case, a pedinculate growth that could be easily excised. Histopathology is the gold standard for definitive diagnosis of the lesion.[6]

The lesion is similar to adipose tissue in microscopic appearance, being composed of mature fat cells, varying slightly in size and shape, presenting higher metabolism when compared to normal adipocytes. [10.12]

However, despite different metabolism, they are not used as an energy source as in normal adipose tissue, probably due to high lipase activity in neoplastic lipoma cells.[13]

Early management of lipomas is necessary, as the tumor can assume large sizes and can cause difficulties in physiological processes such as speech, chewing and swallowing, and can also cause dental abnormalities, such as anterior open bite as well as airway difficulties, tongue atrophy and macroglossia.[1, 14]

The treatment of choice for lipoma is the surgical approach, as its well-defined margins suggest a good cleavage point, thus facilitating excision. The application of diode lasers has been recognized as an adjuvant or alternative approach in soft tissue injury surgeries. Kaur and his collaborators reported the use of diode laser for the treatment of a lipoma in the retromolar region, with total excision of the lesion without recurrences, the authors concluded that the use of laser may be superior to the conventional method due to its advantages of hemostasis and little manipulation in the tissues, resulting

in an uneventful postoperative period.[15th]

Other treatment methods include intralesional steroid injections, where the substance of choice is triamcinolone, used in volumes ranging from 1 to 3 mL depending on the size of the tumor. Its mechanism of action consists in the atrophyation of adipose tissue in lesions that are less than 02 cm centimeters in diameter.[6]

FINAL THOUGHTS

Lipoma is an uncommon benign mesenchymal neoplasm in the oral cavity, which can often go unnoticed by the patient. It is imperative that more recent research be done to better establish the relationship between lipoma and type 02 diabetes mellitus. It is also important to establish an early diagnosis and a correct surgical intervention as adequate means for a pertinent therapeutic management, because if an early diagnosis is not made, the patient may evolve with aesthetic and even functional complaints, as there are reports that due to its increase in volume there may be mechanical trauma due to the space occupied in the oral cavity.

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