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Clinical Case

Considerations of Different Surgical Approaches to Lipoma in the Face: Clinical Case

Considerações sobre Diferentes Abordagens Cirúrgicas para Lipoma na Face: Caso Clínico

Consideraciones sobre Diferentes Abordajes Quirúrgicos para el Lipoma en la Cara: Reporte de Caso

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Abstract

Lipomas are benign mesenchymal neoplasms originating from mature adipose tissue, and frequently in clinical evaluation, they present as an increase in nodular volume, with a sessile or pedunculated base, smooth surface, and smooth consistency, asymptomatic and slow growth. Its color varies from yellowish to pink depending on the depth found in the tissues. In the oral cavity, its appearance is classified as rare. When present, their occurrence is greater in the cheek mucosa, lip, tongue, buccal sulcus, and buccal floor. The objective of this article is to report the clinical case of two lipomas in the mandibular region, where an excisional biopsy was performed, with different surgical modalities, but with effective treatment in both cases.

Descriptors: Lipoma; Mandible; Surgery, Oral.

Resumo

Lipomas são neoplasias mesenquimais originadas a partir do tecido adiposo maduro, benignas, e frequentemente na avaliação clínica apresentam-se como um aumento de volume nodular, de base séssil ou pedunculada, superfície lisa e consistência macia, assintomático e de crescimento lento. Sua coloração varia de amarelada à rósea dependendo da profundidade que se encontra nos tecidos. Na cavidade oral, seu aparecimento é classificado como raro. Quando presentes sua possuindo maior ocorrência são na mucosa jugal, lábio, língua, sulco vestibular, e assoalho bucal. O objetivo deste artigo científico é relatar o caso clínico de dois lipomas em região mandibular, onde foi realizado biopsia excisional, com diferentes modalidades cirúrgicas, porém com efetividade no tratamento em ambos os casos.

Descritores: Lipoma; Mandíbula; Cirurgia Bucal.

Resumen

Los lipomas son neoplasias mesenquimatosas benignas originadas en tejido adiposo maduro, y frecuentemente en la evaluación clínica se presentan como aumento de volumen nodular, con base sésil o pediculado, superficie lisa y consistencia blanda, asintomáticos y de crecimiento lento. Su color varía de amarillento a rosado dependiendo de la profundidad que se encuentre en los tejidos. En la cavidad oral, su aparición se clasifica como rara. Cuando están presentes, su aparición es mayor en la mucosa de las mejillas, el labio, la lengua, el surco bucal y el suelo bucal. El objetivo de este artículo científico es reportar el caso clínico de dos lipomas en la región mandibular, donde se realizó biopsia excisional, con diferentes modalidades quirúrgicas, pero con tratamiento efectivo en los casos.

Descriptores: Lipoma; Mandíbula; Cirugía Bucal.

INTRODUCTION

The lipoma is a benign tumor of mesenchymal origin, the most common in the human body. It consists of mature adipocytes and surrounded by a fibrous capsule[1]. In the oral cavity, its appearance is rare representing 5% of benign tumors in this region[1].

Clinically, the lipoma appears as a circumscribed, painless mass, softened on palpation, of slow growth, with variables, mobile, and maybe sessile or pedicled[2-4]. The peak incidence is observed between the fifth and sixth decade of life. It is rarely observed in childhood and with no prevalence of sex[4]. The most common sites are the tongue, floor, and lips. The buccal mucosa and buccal vestibule represent about 50% of the cases[2-6].

The diagnosis is made by clinical evaluation in conjunction with imaging tests (ultrasound, computed tomography, and magnetic resonance imaging). However, the gold standard consists of microscopic examination of the lesion[5].

The pathogenesis of lipoma is uncertain, studies indicate that it is related to the excessive growth of mature adipocytes, endocrine changes, alcoholism, trauma or related to “metaplasia theory” in which tissue cells can mutate anywhere in the body, differentiating themselves from mesenchymal cells[5,7,8]. The metabolism of lipomas being independent of body fat[1,2].

The lipoma that occurs on the face, depending on the location, may not present any aesthetic or functional impairment. For presenting a slow growth and being

asymptomatic. Thus, resulting in a late diagnosis and treatment[9].

The treatment of lipoma is done by total and conservative surgery excision, thus decreasing the possibility of recurrence, and if it occurs, it may be related to incomplete removal of the lesion[10]. A clinical feature in the intraoperative, but not conclusive, is that the lipoma tends to fluctuate when placed in a 10% formaldehyde solution[11]. Even in cases of recurrence of the lipoma, these factors are not related to malignant transformation[8]. the patient must remain under follow-up, although the prognosis is favorable[2].

This paper aims to report the surgical removal of two cases of lipomas located on the face, treated with different surgical modalities.

CLINICAS CASES

- *Case 1*

A 43-year-old men patient, melanodermic, referred to the dental clinic Service of Maxillofacial Surgery and Traumatology Service of Clinics Hospital of Uberlândia, Uberlândia, Brazil. With the main complaint of volumetric growth in the lower right part of the face. In the anamnesis, the patient did not have allergies, comorbidities, or a history of systemic diseases. Extraoral examination revealed facial asymmetry on the right, nodular volumetric increase, soft consistency, asymptomatic, with a history of the evolution of approximately five years. Through anamnesis and clinical examination, the initial diagnostic hypothesis of lipoma or hemangioma was raised.

An excisional biopsy was performed under local anesthesia and intraoral access. Two anesthetic tubes of 2% lidocaine with epinephrine 1: 100.00 were used. Blockade of the alveolar and inferior and buccal nerves followed by a linear incision and divulsion by planes. We performed digital palpation of the extraoral area, the lesion being accessed and removed by divulsion to avoid compromising adjacent noble structure (Figures 1, 2 and 3).

After removing the lesion, 3 cm in diameter, yellowish in color, we placed it in a 10% formalin solution that floated. The biopsy material taken from the patient is sent to the pathology laboratory. Abundant irrigation of the surgical site and suture with 5.0 nylon thread was performed.

Postoperatively, the patient evolved without complications. Histological examination confirmed the diagnosis of lipoma. The patient remained in follow-up for two years, with no evidence of recurrence.

Figure 1: Initial clinical examination.

Figure 2: Incision in the cheek mucosa.

Figure 3: Access to lipomatous lesion

- *Case 2*

A 36-year-old man patient, melanodermic, was referred to the dental clinic Service of Maxillofacial Surgery and Traumatology Service of Clinics Hospital of Uberlândia, Uberlândia, Brazil. The patient presented as the main complaint “lump on the face”. In the anamnesis, he reported slow growth in the left submandibular region, and

approximately 3 years, asymptomatic and with aesthetic complaints.

In the extraoral examination, we observed a nodular, mobile, and well-defined lesion. Ultrasonography showed a solid fatty nodule in the subcutaneous layer of the left submandibular region suggestive of lipoma (Figures 4 and 5).

Through anamnesis and clinical examination, the initial diagnostic hypothesis of lipoma was raised. An excisional biopsy was performed under general anesthesia and orotracheal intubation. We performed infiltrative local anesthesia in the left submandibular region using 2% lidocaine 1: 100,000, submandibular access, and divulsion by planes. The nodular lesion was excised, and the region was subsequently sutured using 4-0 vycril thread for internal planes and 5-0 nylon thread for external sutures (Figures 6 and 7).

The patient evolved in the postoperative period without complications. Histopathological analysis confirmed the diagnosis of lipoma. The patient was followed up for 3 years, without recurrences.

Figure 4: Initial clinical examination

Figure 5: Ultrasonography showing nodular lesion in the left mandible region

Figure 6: Access to lipomatous lesion

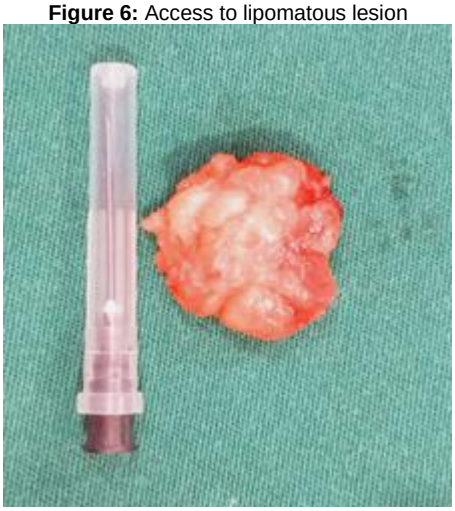

Figure 7: Lipomatous lesion after removal

DISCUSSION

Lipomas are the most common mesenchymal neoplasms; they can affect different parts of the body[1,2]. As for its etiology, it remains unknown. Although infection, trauma, and other factors have been proposed as the etiologic agent of lipomas[7].

In our reported cases, the affected region was the buccal vestibule, being one of the most common locations for the occurrence of lipomas[3]. There are even reports of lipoma in the temporal region[12].

Currently, imaging exams are valuable instruments in the diagnosis of lipomas, which include ultrasound, magnetic resonance, computed tomography, and panoramic radiography[3]. However, even with the imaging tests that assist in the diagnosis, only histological analysis is the only test capable of providing the definitive diagnosis[8,12].

Surgical approaches for removing lipomas are defined according to the location of the lesion. Submandibular accesses are widely used by buccomaxillofacial surgeons in cases of lipomas located in regions close to the mandible due to posterior aesthetic gain, as in the case report Meneses et al.[3]. In Case Report 1, it was decided to perform excision under local anesthesia and with intraoral access. This option

was supported because, clinically, the patient presented a volumetric increase in the region of the jugal mucosa, thus facilitating its localization through the oral route. Intraoral access also sought to provide the patient with less aggressive and effective treatment for such disease.

In Clinical Case 2, we performed the surgical procedure under general anesthesia and submandibular access since the patient had no evidence of injury on intraoral examination. This paper includes two different surgical modalities, both cases were treated effectively, with a two-year and three-year period of preservation, respectively, without recurrence. Although the growth of oral lipomas is limited, they can reach large dimensions, which can interfere with speech and chewing functions, reinforcing the need for removal[6,13].

Lipomas must have a differential diagnosis with oral epidermoid cysts, oral lymphoepithelial cyst, benign salivary gland tumor, mucocele, benign mesenchymal neoplasia, ranula, and fibroma5, with histological analysis being the predominant factor in its diagnosis[11,13,14]. Histologically, lipomas show little difference from normal adipose tissue, with a thin fibrous capsule. However, it has a different metabolism from normal tissue, as lipids are not available for metabolism[6,8]. Histologically, lipomas are subdivided into several entities: simple lipoma, Angiolipoma, Fibrolipoma, starred or pleomorphic cell lipoma, Myiolipoma, Myelolipoma, Chondroid Lipoma, Myoid Lipoma, lipoblastomatosis, lipomatosis, hibernoma, and atypical lipoma. Simple lipoma and fibrolipoma are the most common histopathological variants[6,10,14].

The treatment of all histological variants consists of surgical excision, with the patient being followed up, although the prognosis is favorable[2,8,14]. The recurrence of the lesion will be causally related to the removal of the capsule. Encapsulated lipomas have a lower tendency to relapse, on the other hand, lipomas that do not have a coating capsule have greater risks of recurrence due to the difficulty of dissection and may even injure noble structures such as the facial nerve[3]. Therefore, the relapse of the related lesion with the invasive nature and difficulty of excision[12].

CONCLUSION

Based on the clinical cases in question, it is possible to conclude that different surgical modalities can be just as effective in the treatment of lipomas located on the face, in the quest to provide faster resolution and minimization of risks and complications. However, when choosing the treatment modality, an individualized analysis should be performed, especially due to the location, adjacent noble structures, patient comfort, among other aspects.

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CONFLICTS OF INTERESTS

The authors declare no conflicts of interests.

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