Tratamento Cirúrgico do Mixoma Odontogênico Sem Ressecção Maxilar: Relato de Caso

Surgical Treatment od Odontogenic Mixoma Without Maxillary Resection: Case Report

Tratamiento Quirúrgico del Mixoma Odontogénico Sin Resección Maxilar: Informe de Caso

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RESUMO

Mixoma Odontogênico é um tumor de origem mesenquimal raro, de desenvolvimento lento e agressivo que acomete indivíduos entre os 10 e 40 anos de idade e principalmente, do gênero feminino. Este estudo teve como principal objetivo descrever um caso clinico de tratamento cirúrgico do mixoma odontogênico sem ressecção maxilar em uma paciente do gênero feminino que compareceu ao Ambulatório de Patologia Oral e Maxilo Facial, da Faculdade de Odontologia da UNIRG, na cidade de Gurupi-TO – Brasil. A paciente foi submetida ao tratamento cirúrgico conservador, através da curetagem e enucleação total do tumor. A proservação foi realizada em períodos de 12 meses, 24 meses e 48 meses aonde pode-se observar a sequencial e completam reparação óssea, inclusive a permanência dos dentes envolvidos que foram submetidos a tratamento endodôntico com total remodelação da lâmina dura e do ligamento periodontal. **Palavras-chaves**: Mixoma Odontogênico; Maxila; Tratamento; Cirurgia.

ABSTRACT

Odontogenic Myxoma (OM) is a rare tumor of mesenchymal origin, of slow and aggressive development that affects individuals between 10 and 40 years of age and mainly female. This study aimed to describe a clinical case of surgical treatment of odontogenic myxoma without maxillary resection in a female patient who attended the Outpatient Clinic of Oral Pathology and Facial Maxillo, of UNIRG Dental School, in the city of Gurupi-TO - Brazil. The patient underwent conservative surgical treatment through curettage and total enucleation of the tumor. Proservation was carried out in periods of 12 months, 24 months and 48 months where it was possible to observe the sequential and complete bone repair including the permanence of the involved teeth that underwent endodontic treatment with total remodeling of hard blade and of the periodontal ligament. **Key-words**: Odontogenic Myxoma; Jaw; Treatment; Surgery.

RESUMEN

El mixoma odontogénico es un tumor de origen mesenquimal poco frecuente, de desarrollo lento y agresivo que afecta a individuos entre 10 y 40 años de edad y principalmente mujeres. El objetivo principal de este estudio fue describir un caso clínico de tratamiento quirúrgico de mixoma odontogénico sin resección maxilar en una paciente femenina que asistió a la Clínica Ambulatoria de Patología Oral y Maxilo Facial, de la Facultad de Odontología de UNIRG, en la ciudad de Gurupi-TO - Brasil. El paciente se sometió a tratamiento quirúrgico conservador mediante legrado y enucleación tumoral total. La conservación se

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realizó en periodos de 12 meses, 24 meses y 48 meses donde es posible observar reparación ósea secuencial y completa, incluyendo la permanencia de los dientes implicados que fueron sometidos a tratamiento endodóntico con remodelación total de la durancia y ligamento periodontal.
Palabras clave: Mixoma odontogénico; Mandíbula; Tratamiento; Cirugía.

INTRODUCTION

The literature defines odontogenic myxoma (OM) as a rare benign neoplasm of mesenchymal origin. It is a pathology of slow but aggressive development that can affect both soft and hard tissues and, when it affects he bones, it mainly affects those of the facial skeleton[1,2]

Researchers found confirm that OM, for the most part, occurs in the mandible (66.4%), followed by the maxilla (33,6%). It mainly affects young adults with a mean age between 10 and 40 years and no gender predilection[1,2,3].

The OM, as will be reported in this study, is usually identified in routine exams through images, or those more advanced stages of development that cause facial asymmetry as they are asymptomatic. Smaller lesions can be identified by radiographic images or computed tomography (CT) scans, unlike larger lesions that are associated with maxillary and mandibular cortical expansion.[1] It is necessary to carry out a histopathological diagnosis in order to differentiate between other pathologies such as odontogenic and non-odontogenic cysts, peripheral and central fibromas, fibrous dysplasia, central giant cell granuloma, Pindborg tumor, ameloblastoma and others.[4]

The treatment of OM is essentials surgical by means of total removal or in some cases, by bloc resection. The recurrence rates vary between 25 and 35%, which is considered to have a good prognosis. Periodic reassessments are necessary for a preservation of least 5 years, especially in the first 2 years because according to the literature, this is the period when relapses can occur.[5,6,7]

OM is a rare benign tumor and reporting new cases is of paramount importance for the scientific community in order to improve or predict other treatment methodologies as well as understand the development of this pathology.

The clinical case presented in this study was treated using a conservative surgical technique, different from other radical techniques that are chosen by other surgeons, such as the total removal of the affected region. Surgery without resection may be a beneficial alternative for the patient, since it does not present such traumatic aesthetic and functional damage.

Therefore, this work aims to describe a clinical case of surgical treatment of OM without maxillary resection.

CASE REPORT

Report of a relatively rare case of an OM in which a female patient who underwent a surgical procedure for enucleation and curettage using the Weber-Ferguson approach.

A patient with 46-year-old, female, mixed-race, presented at the Oral and Maxillofacial Pathology Outpatient Clinic- Faculty of Dentistry – UNIRG, in the city of Gurupi – TO – Brazil, with the main complaint of swelling in the left hemiface (Fig.1). When clinically evaluated, a tumor of firm consistency was observed, suggesting that it was an intraosseous lesion with possible expansion of the cortices and also a tumor projection in the region corresponding to the molar and premolar teeth on the corresponding side. (Fig.1)

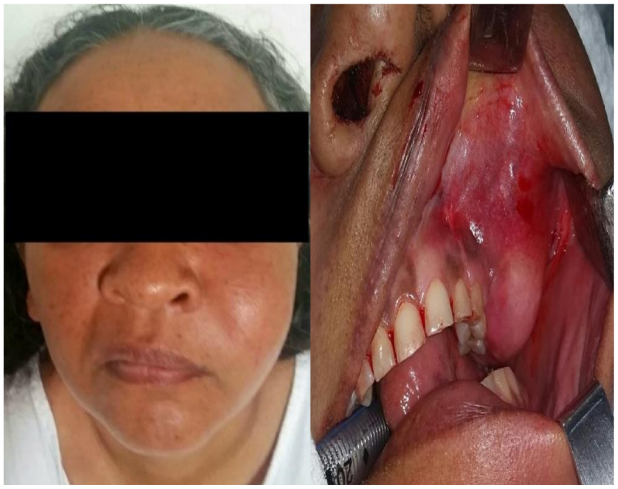

Figura 1 - Volume increased in the left hemiface. tumor projection in the region of premolar and molar teeth. Source: The autor.

In the evaluation of the cervical and submandibular regions, no enlarged, fixed or painful lymph nodes were observed. Due to the long period of asymptomatic evolution, hypotheses arose to be related to a benign neoplasm, among them, inflammatory periapical cyst, central giant cell lesion, myxoma, Pindborg tumor, among others. The next step was to request a computed tomography in 3D reconstruction (Fig. 2), which revealed a lesion with circumscribed margins, with solid content that involved the entire left maxillary sinus from the floor, anteriorly and posteriorly, which suggested a solid lesion without aspects of

calcification (Fig.2) ruling out the possibility of an any cystic lesion or other malignant neoplasms.

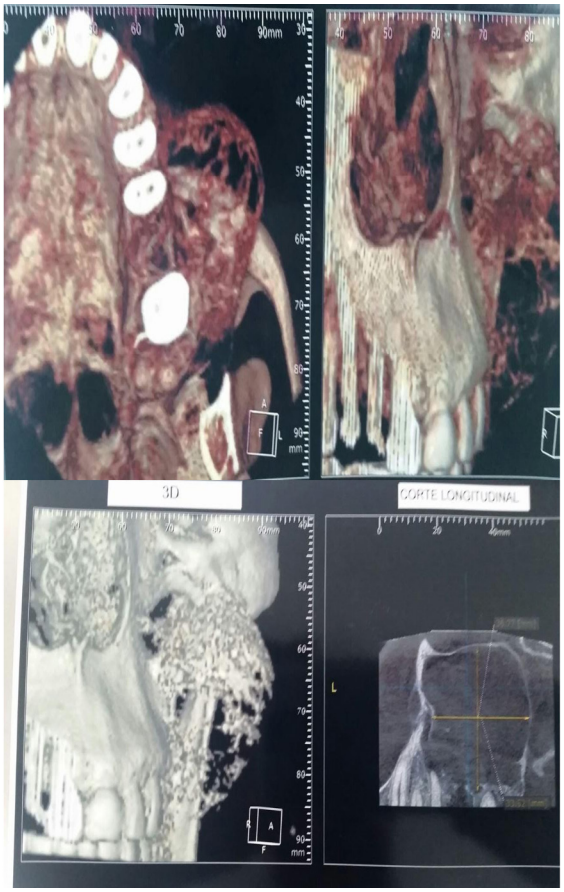

Figura 2 - Computed tomography in 3D reconstruction. Solid lesion without aspects of calcification. Source: The autor.

After the data provided by CT, an intraoral incisional biopsy was performed which part of the healthy tissue as well as the part involved by the tumor was collected. The specimen was fixed in 10% formalin solution and sent for histopathological examination. The report was compatible with the OM in which the histological sections were represented by fusiform round cells, with a stellate arranged in an abundant myxoid stroma, between several bone trabecular and with an apparent capsule covering the structure, which confirmed the diagnostic hypothesis.

After that, the patient underwent surgical intervention for the complete removal of the lesion using the Weber-Ferguson approach (Fig. 3), and is under periodic evaluations for follow-up at 6 months, 12 months (Fig. 4); 24 months (Fig. 4), and 48 months (Fig. 5). During this follow-up period, boné repair was evidenced, including the permanence of the involved teeth that underwent endodontic treatment with total remodeling of the periodontal ligament and lamina dura. The patient keeps under observation what is intended until 60 months.

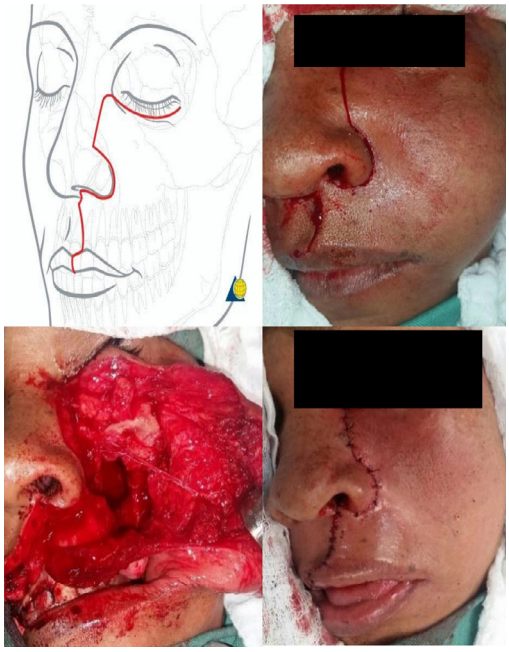

Figura 3 - Weber-Ferguson acess. Weber-Ferguson and suture. Source: AO Surgery Reference and the autor.

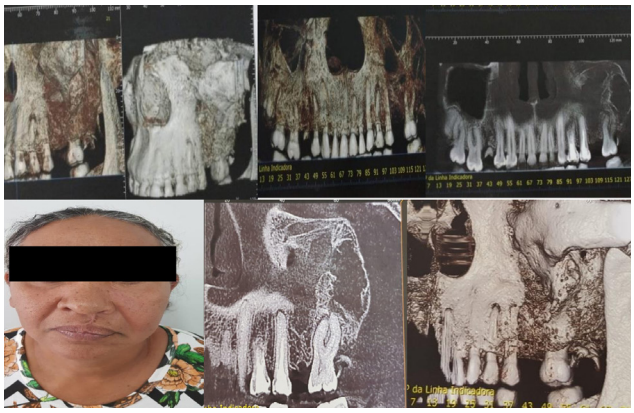

Figura 4 - Control -12 months and 24 months. Source: The autor.

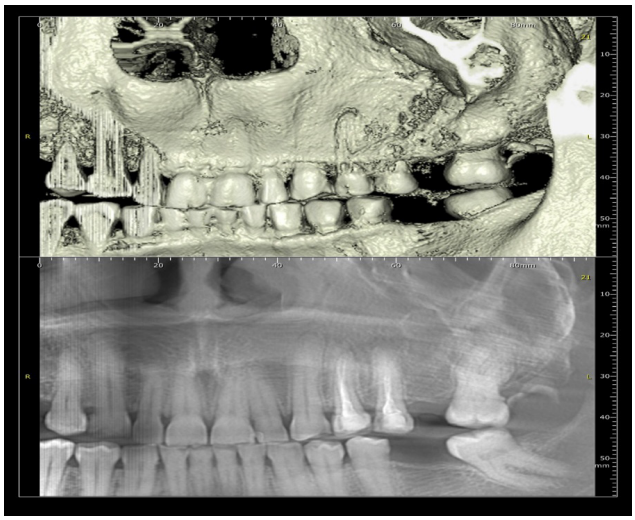

Figura 5 - Control – 48 months. Source: The autor.

The study was submitted for approval to the Research Ethics Committee, according to CNS resolution 466/2012, because it was a research

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involving human beings and that, directly or indirectly, involved individuals in their entirety or parts, being authorized by Opinion Substantiated No. 5.397.147.

DISCUSSION

There is a consensus in the literature that OM is a benign, slow-growing neoplasm, but it manifests itself in an aggressive, asymptomatic way, with intraosseous growth, but with progressive growth it causes bone expansion, a situation similar to the case presented here and may be located both in the maxilla and in the mandible, with a predilection for the lattler.[1,2-5-8,9]

Its presence may be related to resorption or displacement of teeth..5 The literature also states that it is a tumor with significant similarities to the mesenchyme of a developing tooth, so its origin may be related to odontogenic ectomesenchyme, as wel as the presence of unerupted tooth.[9,10-11]

An Of all odontogenic tumors, OM represents 0.5 to 20% of occurrence in adults, in third decade of life na in children it is found in [8,5] to [11,6] %, Although with numerous studies confirming that the incidence of this tumor does not depend on race or gender, the literature stats that Africans and Caucasians are most affected when compared to those of Far Eastern origin. As for gender, surveys consulted report a higher frequency in females compared to males.[12-13]

With regard to symptoms, despite many authors portraying OM as asymptomatic, findings in the literature confirm that when there is pain, it can be classified as severe or mild. Severe pain is related to tumor invasion into soft tissues and mild pain is related to intraossseous lesions. Rapidly evolving OMM have been reported despite being rare and may expand to other structures such as the ramus and condyle of the mandibule.[14] Other characteristics are found in the literature such as tooth mobility, paresthesia, exophthalmos and nasal obstruction.[9,15] In the present case, although asymptomatic, it showed an intraoral bulging (Fig. 1) and facial asymmetry (Fig. 1).

Regarding the radiographic aspects, there is a consensus in the literature that these unilocular lesions, when smaller can be identified through routine radiographs because they are asymptomatic, being seen as unilocular or multilocular radiolucent área with a "soap bubble" or "honeycomb" appearance.[16] In larger lesions, as in the case under study, the alert for the radiographic study was due to the clinical observation of the tumor that was visible causing facial asymmetry similar to a case described by Hernández and Ludenã.7

The diagnosis, although suggestive by the description of CT images, is also supported in the consulted literature, but the definitive diagnosis must be strictly histopathological, and this was performed in the present study, also referenced in the consulted literature.

Regarding the treatment performed in this clinical case, it was similar to the study by Veras et al.[17] in which we opted for the Weber-Ferguson surgical approach used for the complete removal of the larger lesions and with greater involvement of the anatomical structures. Even with the prognosis of this pathology, it is necessary to continue the cases and this is a consensus among most authors when they state that relapses can occur in the first two years after the surgical procedure.[1,2,17-18] However, the work by Saalin et al.[19] confirmed that both the more conservative approach and the resection showed low recurrence rates in the first 10 years following the surgical procedure, but other studies showed that about 25%[2,10] of cases have a high chance of recurrence when the technique is used for tumor removal and curettage. It still advisable for these patients to followed up every six months for 5 years 20, as planned for the patient in this study or for life, as evidence has already been found that this tumor can reappear after 30 years[19]

The case under discussion is already in the period of 4 years of proservation, although it is intended that this period should be extended for a period of least 5 years due to the conservation of the dental elements because it has opted for curettage and not for in bloc resection as is referenced in the literature.

FINAL CONSIDERATIONS

The OM is a benign neoplasm of odontogenic origin, rare and, according to the literature it has a preference for the female gender. Although radiographic or computed tomography imaging studies can lead to the differential diagnosis, the differential diagnosis, the histopathological examinations is essential for a definitive diagnosis, given that its characteristics are similar to other neoplasms. The choice of surgical techniques is of paramount im-

portance for successful treatment, considering that this tumor represents high rates of recurrence. Radical surgery is considered by many surgeons to be safest and most effective method for treating OM. However, studies published in the literature corroborate the results obtained in the present clinical case expose in this work treated by method conservative through enucleation and curettage, which showed excellent results in the follow-up period and did not harm the patient's function and aesthetics.

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