Mediterranean BioMedical Journals
International Journal of Medicine and Surgery
2019, Volume 6, ID 301
DOI: 10.15342/ijms.v6ir.301

CASE REPORT

ODONTOGENIC MYXOMA OF THE MAXILLA A CASE REPORT

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ABSTRACT

Introduction : The odontogenic myxoma is a rare benign tumor of the maxilla, whose clinical and radiological manifestations are variable and nonspecific and can be confused with other radiolucent lesions. Its origin would be the embryonic mesenchyme of the dental follicle.

Case report : We report the case of odontogenic myxoma of the right maxilla, discovered by chance in a 25 year old patient. Clinically, the patient had painless, firm on palpation, swelling of the right maxilla, impeding chewing and speech. Facial CT-scan showed an expansive osteolytic process blowing the right maxilla off. A biopsy was in favor of an odontogenic myxoma. The diagnosis was based on clinical, radiological and especially anatomopathological arguments.

Conclusion : The local aggressiveness of the odontogenic myxoma and its high rate of recurrence justify a radical treatment beyond the lesion's boundaries and thus imply a postoperative repair.

KEYWORDS: Odontogenic - Myxoma - Maxilla.

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INTRODUCTION

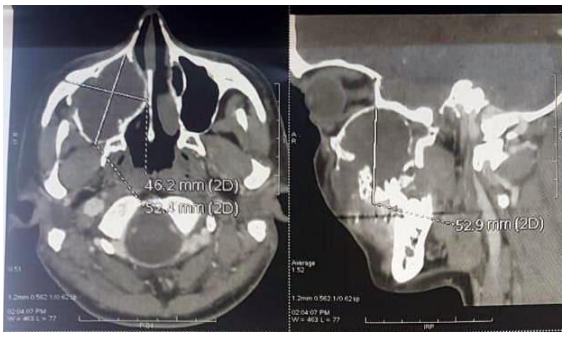
Myxomas of the maxilla are benign odontogenic tumors of mesodermal origin, with high destructive potential. They occur most often among young adults and only represent 3% of odontogenic tumors, and 0,41% of bone tumors.[1] Clinical and radiological manifestations are variable and can be confused with other benign or malignant lesions of the maxilla.We report the case of a myxoma of the maxilla, with a review of the literature, thus allowing for a diagnostic and therapeutic difficulty analysis.

PATIENT AND CHART

We report the case of a 25 year old patient, with no particular pathological history, who consulted for a painless right cheek swelling since six months, with no ocular or neurological signs, with an ipsilateral partial nasal obstruction and chewing and speech discomfort. The extraoral physical examination revealed a facial asymmetry due to a right cheek mass, merged with the maxilla, covered with healthy skin. The intraoral exam found swelling in the alveolar edge of the upper right molar sector, which included the right maxillary tuberosity. The covering mucosa was healthy. The lymph node examination found no lymphadenopathy. The facial CT-scan indicated with precision the topography of an osteolytic lesion, blowing off the maxilla. The lateral extension destroyed cortical bone of the maxilla. The

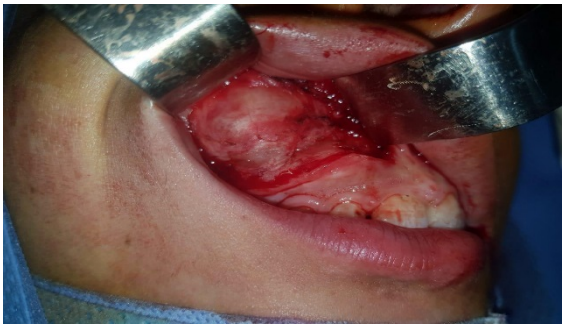
lesion extended upwards into the maxillary sinus and the ipsilateral nasal cavity, the upper portion reached the orbital floor. A transoral incisional biopsy was in favor of an odontogenic myxoma.

Figure 1: CT images in axial, and sagittal sections, showing the location, osteolytic appearance of the myxoma and its extensions to the maxillary sinus, nasal fossa and orbital floor.



A surgical excision was carried out under general anesthesia through an exclusively transoral vestibular route. The surgical procedure consisted of a partial maxillectomy taking away part of the right maxilla, by osteotomies going through the zygomatic bone outwards, the frontal process of the maxilla inwards, respecting the infraorbital rim upwards and the molar sector downwards.

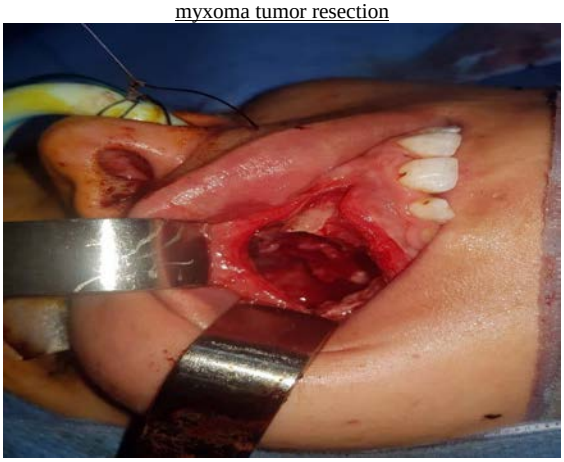
Figure 2: Peroperative image of the maxillary odontogenic myxoma.



The posterior wall of the maxillary sinus is carried off in monobloc, respecting the infratemporal fossa behind. The anatomopathological examination of the surgical specimen revealed a mesenchymal proliferation made of stellar cells arranged on a myxoid background.
The postoperative course was simple without recurrence at one year, with considerable clinical improvement reported by the patient.

Figure 3: Macroscopic appearance of odontogenic myxoma of the maxilla after resection.

Figure 4: intraoperative image showing the residual cavity after myxoma tumor resection



DISCUSSION

Myxoma of the maxilla is a rare benign tumor that represents 0.41% to 7.19% of maxillary tumors, seen in young adults or teenagers (less than 30 years old) [2]. Pediatric cases, occurring respectively at the age of 13 and 17 months have been reported [3,4]. There is no gender predominance [5]. It affects the mandibular bone more than the maxilla and can exceptionally be found in soft tissue (gingival, alveolodental ligament). Farman et al. [6] distinguishes between odontogenic myxoma of the maxilla and that of the mandibule, and suggest that the average age at the moment of diagnosis concerning odontogenic myxoma of the maxilla is of 29,2 years old for males and 35,3 for females, while odontogenic myxoma of the mandible occurs at the average age of 25,8 for males and 29,3 for females. Clinically, the tumor has a central topography and a slow growth [7]. Most often asymptomatic, the odontogenic myxoma manifests itself locally, as in our case, by an isolated swelling. It progressively increases volume, pushing away the cortical bone [8]. It can invade the maxillary sinus [1-3]. When symptoms do exist, they are mostly tooth mobilities or evolution abnormalities [2]. Dental expulsions can mark the evolution [1]. When the cortical bone is destroyed, soft tissue invasion is possible. Sensory disorders are rare [2].
The Myxoma of the maxilla's pathogenesis remains debated. Some authors, like Jaffe, keep the myxoma name to be attributed for maxillary tumors only, estimating there is a difference in evolution between maxillary locations and other common connective tissue locations. Some authors [6] list it with odontogenic tumors of mesenchymal origin. Others [6] appear less affirmative about the odontogenic or osteogenic origin of the tumor. But they all agree to make it an embryonic mesenchymal tissue derived tumor through myxoid transformation. The CT-scan is essential to determine the surgical intervention modalities, depending on the lesion's tridimensional topography and its neighboring relations. Some radiological images can be deceptive and can lead to misdiagnosis. The radiological aspect does not confirm the diagnosis but strongly directs it [9]. It shows an osteolytic type image, poorly limited, of variable size most often of polygeodic appearance. Macroscopically, the myxoma is whitish in appearance, of soft gelatinous consistency. Histologically, the presence of fusiform or stellate cells in a myxoid stroma confirms the diagnosis [10]. The differential diagnosis of odontogenic myxoma of the maxilla arises mainly with ameloblastoma. Bone sarcomas can be considered givin the speed of evolution and the lytic aspects as well as the presence of certain nuclear atypies in the myxoid component making

the diagnosis difficult. Chondromas, fibroids, giant cell tumors and intraosseous hemangiomas can also be discussed. The treatment is surgical excision which can be: * A conservative enucleation for non exstensive small lesions when the observance is certain, knowing that the risk of recurrence is twice as high for maxillary localizations [8]. * or radical treatment with bone resection 1.5 cm from the lesion boundaries leading to bone +/- soft tissue loss requiring immediate or delayed restorative surgery or prosthetic restoration.
Regular extended postoperative clinical and radiological monitoring, every six months for five years remains essential to watch for a possible recurrence.

CONCLUSION

This presentation aims to include myxoma in the differential diagnosis of radiolucent and radiopaque lesions of the maxilla. Slow growth and asymptomatic evolution - and significant peripheral invasion of odontogenic myxoma require early therapeutic surgery. The recurrence rate requires regular monitoring, especially when opting for conservative surgery, an indication that should be considered as often as possible as first intention.
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AUTHORS' CONTRIBUTIONS

The participation of each author corresponds to the criteria of authorship and contributorship emphasized in the Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals of the International Committee of Medical Journal Editors. Indeed, all the authors have actively participated in the redaction, the revision of the manuscript and provided approval for this final revised version.

PATIENT CONSENT

Written informed consent was obtained from the patient for publication of this case report.

COMPETING INTERESTS

The authors declare no competing interests.

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