AMELOBLASTOMA IN MAXILLA-CASE OF REPORT

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Abstract

Ameloblastoma is a benign neoplasm of epitelial odontogenic origin, slowly growing, locally invasive and it is the most common odontogenic tumor in the Jaws. The purpose of the present study was to report a ameloblastoma case which is rare location, emphasing the clinic,operation and histopathological aspects that are relevant for the diagnosis and treatment of this pathology. This case was seen in a male child who was seven years old. Some diagnostic methods such as introoral and external examinations, radiographic and CT imaging systems were used to diagnose this case. The lesion in the case was removed totally with inside and outside maxiller sinus. It was determined a mass which is exopyhitic and sesil implantation and was measured as 2.5 cm. No complication was observed during and after surgery. This case was diagnosed as ameloblastoma after histopathological examination. The patient was monitored during 48 months after surgery and no signs were observed in relation to recurrence during monitoring.

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Introduction

The ameloblastoma is a benign odontogenic tumor of epithelial origin that exhibitis a locally agressive behavior with a high level of recurrence, being believed to theoretically come from dental lamina remains, the anamel organ in development, epithelial cover of odontogenic cysts or from the cells of basal layer of the oral mucosa.[1] After a lot of discussion relating to the definition and classification of malignant versions of ameloblastoma[2], the World Health Organization in 2005 classified the malignant counterparts of ameloblastoma into malignant ameloblastoma and ameloblastic carcinoma.[3]

The ameloblastoma is second most common odontogenic tumor epithelial origin (25%) that happens in the oral cavity, often attacking the molar regions and ascending ramus of mandible; and only about 20% happens is the posterior maxilla region.[4] Half of maxillary ameloblastomas ocur in molar area, involving the maxillary sinus in 15% of cases.[5, 6] The lesion presents prevelance between the third and the fourth life decade, equally affect both genders and having no predilection for race.[7] The tumor is usually asymptomatic, grows slowly and small lesion can cause increase in volume, pain, bad occlusion and paresthesia of the affected area.[8] Radiographically, the neoplasia can be presented as a unilocular or multilocular radiolucent image in the shape of 'soap bubbles' or 'honeycomb' .Microscopically, the follicular and plexiform patterns are the most common. In the follicular pattern the tumor epithelium primarily presents as islands of various size and shape.[9, 10] They usually consist of a central mass of polyhedral or angular cells with prominent intercellular contact and conspicuous intercellular spaces. The morphology has some resemblance to the stellate reticulum of the normal enamel organ, but many details are different. The peripheral cells are palisaded, columnar, or cuboidal with dark nuclei. The columnar cells

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contain elongated nuclei, which may show reserve polarity and have a histomorphological likeness to preameloblasts. Mitoses are absent or very infrequent.[9]

The present study was carried out to report a ameloblastoma case which is rare location, emphasizing the clinic,operation and histopathological aspects that are relevant for the diagnosis and treatment of this pathology.

Case report

A male child patient, who was 7 years old, applied to the center of Academi autorhinolaryngology for complaining about swelling in the left maxilla aproximately one year. It was not determined any lesion on patient during intraoral examination. However, there was about 2 cm diameter mass on the left malar region of the face (figure1-2).

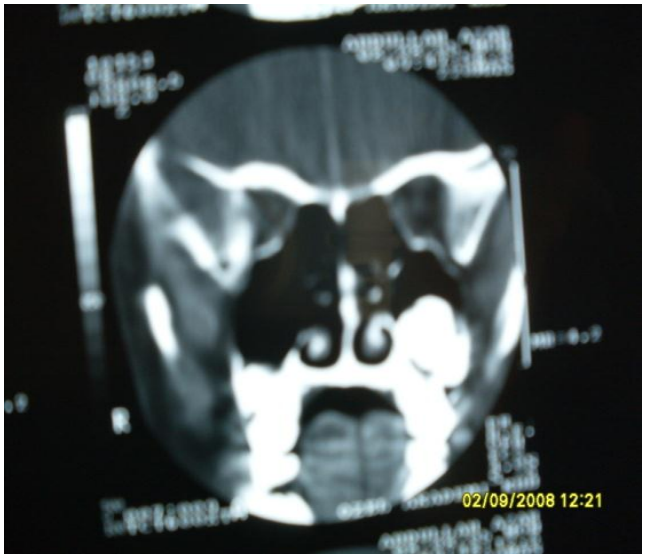

Figure 1. Computer Tomography (CT) image before operation

It was also observed a volumetric increase of the left side of face, causing minimal facial asymmetry, through the external examination. The patient also complained about nasal obstruction which concha enlargement was depletion toward medial compartment. The radiographies (Waters) showed the precence (presence) of a radiolucent image of irregular edges. There was opasite in the left maxiller sinus from dental area in computer tomography (CT) image (figure 1). It was carried out consultation from dentist to prepare for operation. We performed left gingivobuccal insizyon like caldwell-luc operation under general anesthesia. We observed just the hard mass under mucosa. We were used elevator and drill for exposure mass. The mass was exopyhitic and sesil implantation. We measured the mass on ıts biggest aproximately 2.5 cm peroperative (Figure 3). We performed complete resection of the mass including safe bone margins with inside and outside maxiller sinus. We protect maxiller mucosa and cleaned with Isotonic water. It was not observed any complication during and after surgery. We send specimens to pathology department for hıstopathological examination. It was diagnosed as follicular ameloblastoma after histopathologic examination (Figure: 4, 5, 6). The macroscopial apperance of the operation specimen depends on the size of tumor and the treatment modality. Resected tumors are surrounded by normal bone and may contain teeth. The tumor area is grayish and does not contain hard tissue apart from the border areas, it usually presents as a mixture of solid and multicystic areas. They are filled with a brownish fluid, which often is of low viscosity, but may be more gelatinous.

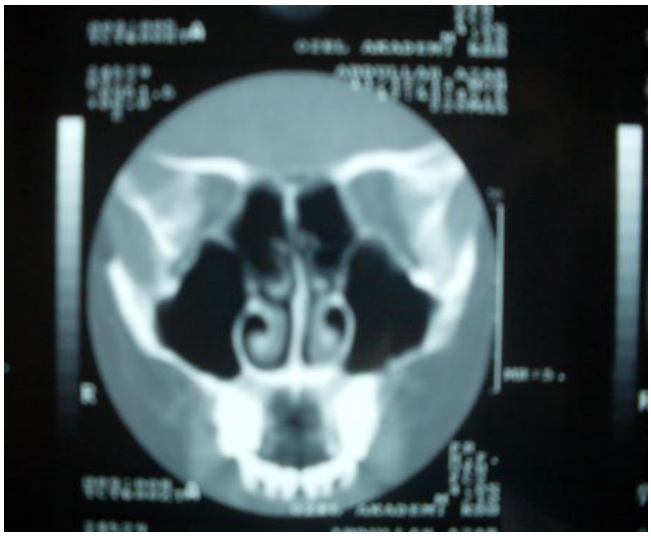

Figure 2. Computer Tomography (CT) image after operation

Microscopically the tumor consists of odontogenic epithelium growing in a relatively cell-poor collagenous stroma. Two growth pattern and four main cell types are recognized within the histopathological range of the entity. The two growth pattern are named follicular and plexiform. From these findings, a histopathological diagnosis was ıssued ameloblastoma. The

patient was kept for follow up 48 months, with no signs of recurrence (figure2).

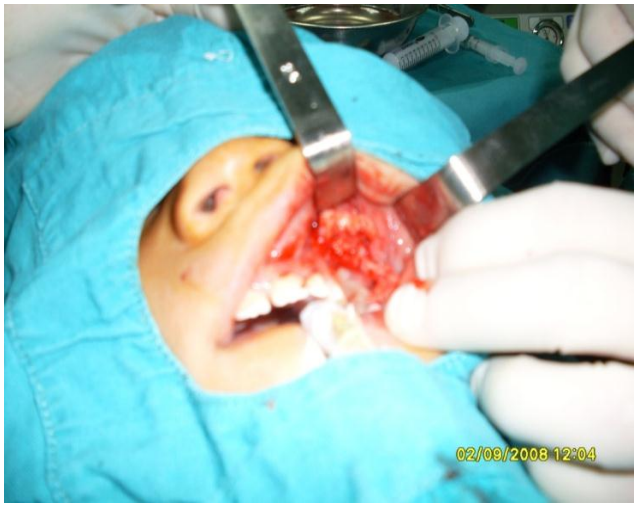

Figure3. Peroperotion

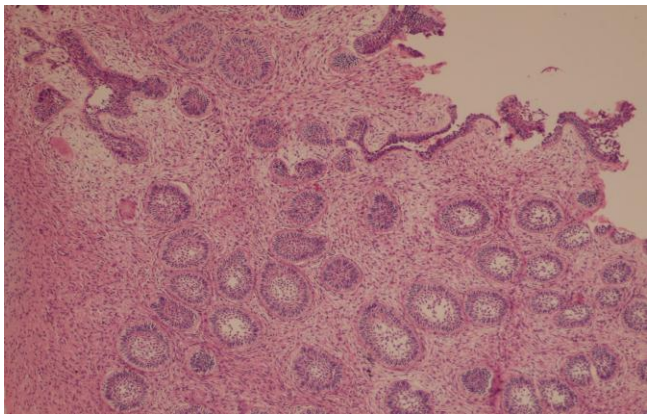

Figure 4. Ameloblastoma exhibiting the follicular appearance and fragmented mature bone tissue. (HEx200)

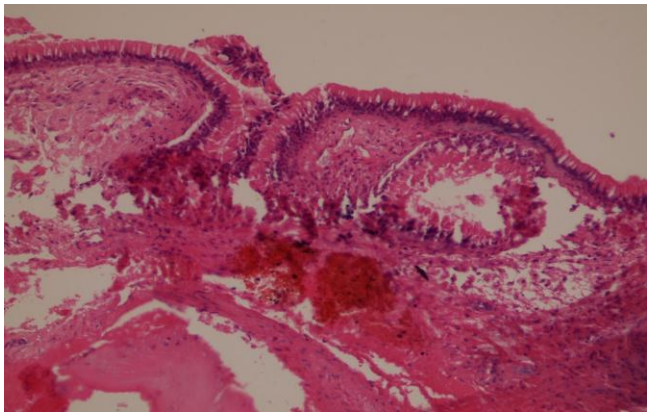

Figure 5. In cases of follicular ameloblastoma, the tumour consists of epithelial islands with a stellate reticulum-like cells centre and a peripheral rim of palisading cells. (HEX100).

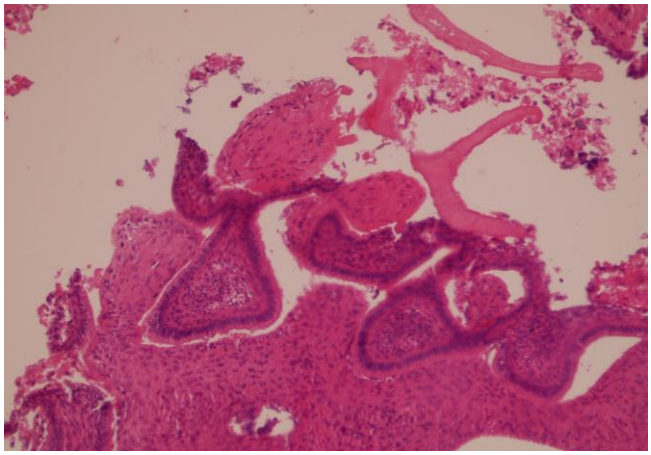

Figure 6. Ameloblastoma. Peripheral cells of tumor islands. The basal cells are palisaded and columnar. (HEx200)

Discussion

The are rare very few reports about ameloblastoma in whom the larger number of cases are presented.[11] Nastri et al. report of scarcely 250 cases evaluated in the world literature until 1993, while Reichart et al. report of 454 cases published until 1995.[5, 11] Such lack of accurate data is the main reason why the true nature of this tumor is stil unclear. Because the same denominator in most instances is a lack of preoperative diagnosis, it is obvious that accurate preoperative diagnosis of ameloblastoma is a top priority in the treatment plan. Larger lesion with significant bone destruction and extension to neighborning structures generally are easily to be diagnosed. Due to low suspicion index, the problem arises when we are facing small lesion mimicking odontogenic cyst or cyst of maxillary sinus. An ameloblastoma is an odontogenic tumour of the greatest interest in dentistry, because the literature does not agree on the best therapeutıc approach. It is necesssary to consider histologic type, location in the maxilla, and the possibility of monitoring the patient after therapy.[12, 14] Ideally, all tissue removed when an unerupted tooth is surgical exposed should be microscopically evaluated so that appropriate diagnosis and treatment can follow.

Recognition and distinction of the different forms of ameloblastomas are fundamental, because they are intimately linked to the treatment plan and prognosis. They are classified into 3 types: multicystic intraosseos or solid conventional, unicystic intaosseos, and peripheral. However, the biologic behavior of the

variants of ameloblastoma is the factor that dictates their capacity for recurrence, expansion, or local invasion.[14-16] Irrespective of ameloblastoma and its location in the maxilla or the madible, the most indicated approach would be radical treatment to prevent recurring ameloblastomas from attaching to vital structures.[17, 18] Postoperative follow-up is importmant of ameloblastoma because of recurrence, which depends on factors such as choise of treatment of the prımary lesion, extend of the lesion, site of origin.[19]

Treatment of ameloblastoma is controversial. There is discussion in the literature about different treatment approaches for solid ameloblastomas.[20-23] In light of the important fundamental concepts in the current literature, it is believed that the less invasiv therapeutic modalities can result in successful treatments, mainly when allied with the clinical, imaginal, and surgical considerations previously discussed.[24] This agrees with our clinical for his patient.

For our patient, surgical removal of the inteosseous mass was performed. The lesion had an evident cleavage plane, which favored its entire removal. At first, the traditional therapy of resection of the site of the lesion was not discarded, but after histopathologic examination of the tissue and the therapeutic indication based on the evidence in the literature, the less invasive form of therapy and follow-up were chosen. Another important point our patient is children for less invasive form of therapy. Figure 2, shows the tomographic at the 48- months there isn't recurrence. In general, because of functional and masticatory damage, mutilations, and facial deformities after traditional treatment of complete resection of the lesion site, there is trend in scientific community during this last decade for less invasive therapeutic procedures for ameloblastomas, considering the clinical, radiographic, and histopathologic variables.[24]

Conclusion

En bloc resection with safe bone of ameloblastoma is important therapy in pediatric group. Our case was unlike most literature; ameloblastoma wasn't recurrence for fourty mounths. There is a trend in the scientific community during this last decade for less invasive therapeutic procedures for ameloblastomas, considering the clinical, radiographic and histopatohologic variables.[24]

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