

**Correspondence**

Adriana Benatti Bilheiro

IMultidisciplinary Residency Program in Health in Urgency and Trauma, UNINASSAU, Brazil

- Received Date: 28 June 2024
- Accepted Date: 08 July 2024
- Publication Date: 11 July 2024

Copyright

© 2024 Authors. This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International license.

Occurrence of Maxillary Ameloblastoma – Case Report

Karla Magna Xavier, Leonardo Targino Silva Almeida e Macedo, Adriana Benatti Bilheiro

Multidisciplinary Residency Program in Health in Urgency and Trauma, UNINASSAU, Brazil

Abstract

Ameloblastoma is a benign odontogenic tumor with local invasion and high recurrence, common on the jaw bones and less common on the maxilla area. It can be aggressive with destructive effects leading to facial deformation, difficult to swallow and talking. This study reports a case of maxillary ameloblastoma of a female patient. Computed tomography (CT) revealed considered swelling on the right side of maxilla with massive bony destruction. Histological examination led to a diagnosis of a solid ameloblastoma and the patient was regulated to surgery for removing the tumor. Maxillary region is considered a rare and atypical for ameloblastomas and due to the high rate of recurrence the differential diagnosis and early treatment are fundamental to the prognosis.

Introduction

Ameloblastoma is a local invasive benign epithelial odontogenic tumor that is often aggressive presenting high destructive potential [1,2]. Those tumors originate from rests of the dental lamina and odontogenic epithelium and, in general, presents a slow-growing [2,3].

Ameloblastoma is a common benign tumor representing 1% of all oral tumors and about 13% to 78% of all the odontogenic tumors [4,5]. There is no sex predilection and the diagnosis usually occurs between 30 and 60 years [6]. Considering the high rates of recurrence, is important to provide adequate treatment to prevent these cases [5].

The World Health Organization (WHO) classify the benign ameloblastoma in solid or multicystic, unicystic, peripheral, and desmoplastic [7]. It has been observed that the solid or multicystic ameloblastoma is the most

common subtype corresponding about 80% of the cases [7]. That type of ameloblastoma in general has a predilection for the posterior side of the jaws been frequent in the mandible [5]. The former study presents an unusual case of a solid ameloblastoma occurring on maxillary area.

Case Report

A 57-year-old female patient check in on the health service referring a tumor on the right side of maxillar area and the size was increasing over at least 10 years asymptomatic. The patient also complaint of difficult to swallow and talking in addition to facial deformity.

Facial asymmetry was present on the right side on clinical extraoral examination and on the intraoral examination was observed massive lesion extending on the right maxillary vestibule and palatine region to the limit of the median palatal suture (Figure 1).



Figure 1. Extraoral and intraoral examination findings. A: Facial asymmetry on the right side; B: massive lesion observed in the intraoral examination.

Citation: Xavier KM, Almeida e Macedo LTS, Bilheiro AB. Occurrence of Maxillary Ameloblastoma – Case Report. Arch Dental Med. 2024;5(1):001

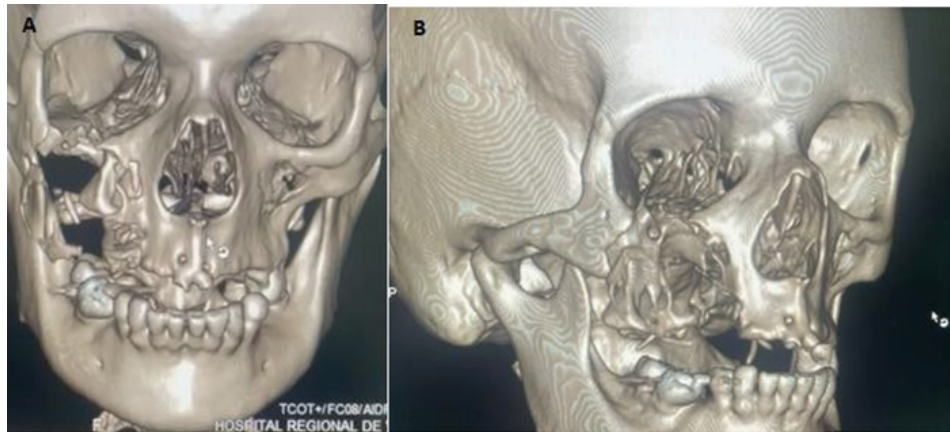


Figure 2. Computed tomography (CT) imaging of the face. A: Frontal view of the CT; B: Lateral view of the CT.

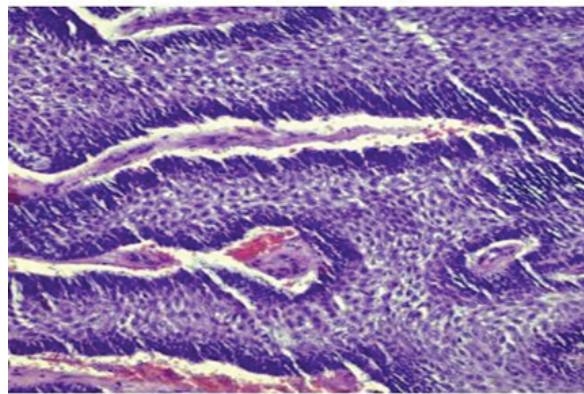


Figure 3. Histological examination showing neoplastic cells forming cords and islands originated from the odontogenic epithelium.

Computed tomography (CT) imaging revealed massive lesion with massive bony destruction affecting the right maxillary area, the right palatin area besides the right orbit margin and floor (Figure 2). An incisional biopsy was done under local anesthesia and the specimen was sent for histopathological evaluation.

Histological examination of hematoxylin and eosin-stained slides demonstrated neoplastic cells forming cords and islands originated from the odontogenic epithelium. On the periphery area, it was observed cells with reverse polarization of the nuclei and on the central region cells were loosely organized (Figure 3).

Based on the gross and histologic features, a diagnosis of ameloblastoma was rendered. Considering this diagnosis, the patient was regulated to surgery in the municipality of Cacoal, Rondônia state, reference on Head and Neck Surgery.

Discussion

Although ameloblastoma is considered a benign tumor, the solid/ multicystic type is considered the most clinically significant odontogenic tumor [5,8]. That's because this tumor is often locally aggressive and has a significant impact and may have a patient's morbidity and mortality [8].

Approximately 80% of ameloblastomas occur in the mandible, commonly in the posterior region, being the maxilla area less

frequent [1]. Besides that, this type of tumor is locally invasive and has a high rate of recurrence if not adequately removed [5].

About 20% of the ameloblastomas occur in the maxilla, those cases in general leads to grotesque facial appearance if the patient delays seeking treatment [1]. Other symptoms include malocclusion, and tooth displacement and loosening [1] corroborated by the case presented in this study.

The conduct and treatment involves various surgical methods divided in basically to types: Conservative approach involving enucleation with curettage and radical approach with local excision and reconstruction [1].

Due to the high recurrence rate of solid/ multicystic ameloblastomas, the mainstay of treatment is radical surgery that often requires plate reconstruction or more extensive reconstructive surgery [5].

It was observed on previous studies that the recurrence rate for solid ameloblastomas was 8% after radical approach, and 41% after conservative treatment such as curettage [5].

Despite it occurs in rare occasions, the ameloblastomas may metastasize turning into malignant ameloblastomas [8]. It is observed that the malignant ameloblastomas are identical to ameloblastomas that do not metastasize on the histological and morphological aspects making diagnosis difficult [8].

Conclusion

We reported an unusual case of solid ameloblastoma localized on the maxilla region, presenting severe Facial asymmetry and massive bony destruction. Besides the fact that the ameloblastoma is usually a benign tumor, it can cause severe deformity leading to difficult to swallow and talking. In rare occasions it can also leads do metastatic cases being fundamental the early diagnosis and surgical removal with radical approach.

References

1. Lovásová K, Borza B, Kizek P, Almaši M, Kachlík D, Hodorová I. A case of giant ameloblastoma: destructive effect on the facial skeleton and soft tissues of the head and neck. *J Int Med Res.* 2021;49(10):3000605211050185. doi: 10.1177/03000605211050185.
2. Agani Z, Hamiti-Krasniqi V, Recica J, Loxha MP, Kurshumliu F, Rexhepi A. Maxillary unicystic ameloblastoma: a case report. *BMC Res Notes.* 2016 Oct 18;9(1):469. doi: 10.1186/s13104-016-2260-7.
3. Arora et al., 2019
4. Shen W, Xu C, Wang P, Chen J, Yu D, Zhu H. Giant Mandibular Ameloblastoma with Rare Hypercalcemia: A Case Report and Literature Review. *Medicina (Kaunas).* 2023;59(11):1956. doi: 10.3390/medicina59111956.
5. Hendra FN, Natsir Kalla DS, Van Cann EM, de Vet HCW, Helder MN, Forouzanfar T. Radical vs conservative treatment of intraosseous ameloblastoma: Systematic review and meta-analysis. *Oral Dis.* 2019;25(7):1683-1696. doi: 10.1111/odi.13014.
6. Bianchi B, Ferri A, Ferrari S, et al. Mandibular resection and reconstruction in the management of extensive ameloblastoma. *Journal of Oral and Maxillofacial Surgery.* 2013;71(3):528–537. doi: 10.1016/j.joms.2012.07.004
7. Singh T, Wiesenfeld D, Clement J, Chandu A, Nastri A. Ameloblastoma: Demographic data and treatment outcomes from Melbourne, Australia. *Australian Dental Journal.* 2015;60(1):24–29. doi: 10.1111/adj.12244.
8. Bachmann AM, Linfesty RL. Ameloblastoma, solid/multicystic type. *Head Neck Pathol.* 2009;3(4):307-9. doi: 10.1007/s12105-009-0144-z.