SAS Journal of Medicine
Abbreviated Key Title: SAS J Med
ISSN 2454-5112
Journal homepage: https://saspublishers.com

OPEN ACCESS

Maxillofacial Surgery

Therapeutic Management of Giant Ameloblastomas

Fadwa Mourabit[1*], Meriem El Boukhani[1], Zakaria Aziz[1], Nadia Mansouri[1]

[1]Maxillofacial Surgery Department, University Hospital Mohamed VI Marrakech

DOI: https://doi.org/10.36347/sasjm.2025.v11i01.008 | **Received:** 05.11.2024 | **Accepted:** 13.12.2024 | **Published:** 15.01.2025

***Corresponding author:** Fadwa Mourabit
Maxillofacial Surgery Department, University Hospital Mohamed VI Marrakech

Abstract **Case Report**

Ameloblastoma is a benign tumor but rapidly extensive and prone to recurrence. It affects young people and especially males. Radiological examination is essential as well as biopsy to confirm the diagnosis, the treatment is surgical which consists of an exeresis with safety margins. The reconstruction constitutes a real challenge in the face of giant ameloblastomas.

Keywords: Ameloblastoma, Benign tumor, Mandibular mass, Radiological examination, Surgical excision.

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INTRODUCTION

Ameloblastoma is a benign tumour common among tumors odontogens, but rare in tumors and cysts of the maxillary. It's frequent location is the mandible.

The diagonstic time can be up to 30 years, what can give the giant shapes in our context

CASE REPORT

FIRST CASE

The first case of a 54-year-old man who presented himself for a mandibular mass, that had been developing progressively over the last 10 years.

On the facial scanner, it was a multilocular osteolytic mass instretching the entire mandibular body with blow, rupture of the cortical and infiltration of adjacent soft parts.

Picture 1: Patient with mandibular tumor

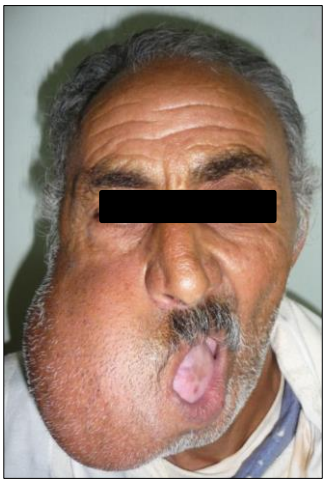
Picture 2: Tdm facial of ameloblastoma

After a biopsy confirming the diagnosis of ameloblastoma, the tumor was treated externally allowing a radical resection in monobloc followed by reconstruction with endoprosthesis.

Picture 3: Picture of the patient in the operatory

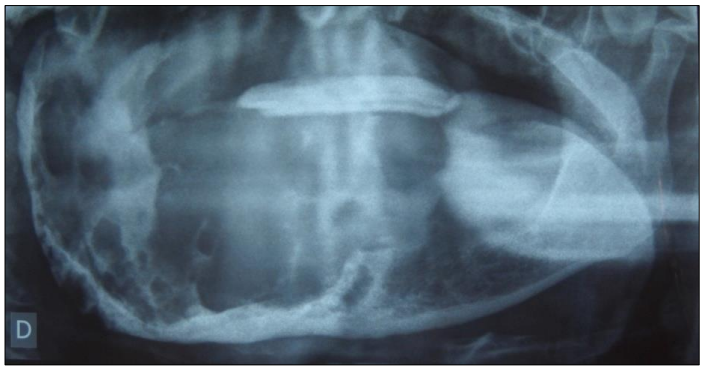
THE 2RD CASE

Of a 62-year-old man who presented himself for a mandibular mass, that had been developing progressively over the last 20 years.



Picture 1: Patient with giant mandibular tumor

On the panoramic radio; multiple honeycomb claret occupying the hemi right of the mandible.



Picture 2: Panoramic radio showing a bone tumor of the right mandible

After a biopsy confirming the diagnosis of ameloblastoma, we performed a radical resection, the patient refused reconstruction.

Picture 3: Picture of the patient post operatively (after hemimandibulectomy he refuses reconstruction)

DISCUSSION

Ameloblastoma is characterized by a low noise slow growth that may explain the frequency of extended forms. This tumor, initially asymptomatic remains. It may be discovered accidentally during an imaging review, or during a systematic radiography as part of a dental condition. Secondly, the appearance of symptoms, such as swelling facial, pain, dental malocclusion, tooth(s) loss, dental displacements, periodontal disease, bucco-sinusians, may occur.

the WHO classification of OMS, in 2005, divided ameloblastoma into 4 subgroups: unikystic, solid/multikystic, desmoplastic, In addition, there are micro-copic variants of ameloblastoma: desmoplasic, to basal cell, plexi form, follicular and acanthomatous cells. These variants may be mixed or uniform.

The management of these giant cases, it is uniformly accepted that the only curative treatment is radical surgery with safety margins ranging from 1 to 2 cm to reduce the risk of recurrence. The challenge lies in the means of reconstruction.

l ideal would be an immediate reconstruction after resection which allows an early aesthetic and functional rehabilitation with less operative morbidity as it will be done in deferred to ensure the total excision and control the absence of recurrence and or for an induced membrane technique however it is more fastider view the scar fibrosis with increase in hospitalization time and number intervention.

The free microanastomosed flaps are recommended by the majority of authors allowing to fill the defects more than 9cm with a dental rehabilitation but is limited in our context by the non-availability of technical tray.

There are also bone grafts not vascularized to fill the defects between 4 and 6 cm.

Currently, the development of synthetic substitutes with inducing proteins would revolutionize mandibular reconstruction.

Regarding the use of radiation therapy, it was widely accepted that ameloblastoma was radioresistant, but new writings state that it is radiosensitive with the advent of megavoltage irradiations, and in this case, the radiotherapy would be reserved for extensive tumors and inoperable patients, in relapsing forms or in case of refusal of surgery.

CONCLUSION

The dental surgeon is a fundamental element in the care since he is often the first consulted practitioner concerning the endobuccal lesions. Any Mandibular distortion showing some characteristics of an ameloblastic tumor, should automatically make the dentist to ask for a dental panoramic radiograph in order to consider at least the diagnosis of an odontogenic tumor and orient the patient. This approach would considerably reduce the number of giant ameloblastoma with a difficult treatment.

REFERENCES

- Dionisi, F., Amichetti, M., Algranati, C., Giacomelli, I., Barbareschi, M., Recla, M., & Grandi, C. (2017). Unresectable ameloblastoma successfully treated with definitive proton therapy. *International Journal of Particle Therapy*, *4*(1), 7-13.
- Madhup, R., Kirti, S., Bhatt, M. L. B., Srivastava, M., Sudhir, S., & Srivastava, A. N. (2006). Giant ameloblastoma of jaw successfully treated by radiotherapy. *Oral Oncology Extra*, *42*(1), 22-25.
- McClary, A. C., West, R. B., McClary, A. C., Pollack, J. R., Fischbein, N. J., Holsinger, C. F., ... & Sirjani, D. (2016). Ameloblastoma: a clinical review and trends in management. *European Archives of Oto-Rhino-Laryngology*, *273*, 1649-1661.
- Philip, M, Morris, C., Werning, J. H. C. (2005). Coll Radiotherapy in the treatement of ameloblastoma and ameloblastic carcinoma, *8*, 157-161.
- Singh, A., Shaikh, S., Samadi, F. M., Shrivastava, S., & Verma, R. (2011). Maxillary unicystic ameloblastoma: A review of the literature. *National journal of maxillofacial surgery*, *2*(2), 163-168.
- Singh, M., Shah, A., Bhattacharya, A., Raman, R., Ranganatha, N., & Prakash, P. (2014). Treatment algorithm for ameloblastoma. *Case reports in dentistry*, *2014*(1), 121032.
- WHO histological classfication of tumours of odontogenic. En ligne: http://screening.iarc.fr/atlasoralclassifwho2.php consulté le 16 janvier 2017.