

# GIANT MANDIBULAR OSTEOSARCOMA: A CASE REPORT

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## Abstract

Mandibular osteosarcomas are relatively rare compared to those occurring in the long bones. We report a case of giant mandibular osteosarcoma in a 52-year-old woman that we realized a complete resection. An early diagnosis and a complete resection of the lesion are necessary for a better prognosis.

## GIANT MANDIBULAR OSTEOSARCOMA: A CASE REPORT

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We respected the ethic for this work

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## Abstract

Mandibular osteosarcomas are relatively rare compared to those occurring in the long bones. We report a case of giant mandibular osteosarcoma in a 52-year-old woman that we realized a complete resection. An early diagnosis and a complete resection of the lesion are necessary for a better prognosis.

**Key words :** *Excision ; Mandible ; Osteosarcoma*

## Introduction

Mandibular osteosarcoma is a rare pathology. Approximately 6-7% of all osteosarcomas occur in the maxillofacial region, mainly in the jaws [1].

They should be considered as a differential diagnosis when analyzing lesions of the mandible and maxilla [2].

Mandibular osteosarcomas behave differently from long bone osteosarcomas. The sites of these tumors also impose a different set of problems for resection and reconstruction than long bone tumors [3].

In this work we report a case of giant mandibular osteosarcoma that was diagnosed early and was able to be surgically removed completely.

## Observation

This is a 52-year-old woman, living in Ambalavao Fianarantsoa Madagascar, who came to the Maxillofacial Surgery Department of the Tambohobe University Hospital in Fianarantsoa for a large right mandibular swelling. Her disease has been evolving for 4 months with progressive and rapid appearance of the swelling in an apyretic context without any notion of trauma but notion of right lower molar pain.

She is neither an alcoholic nor a smoker. She has no particular defects. She has no personal or family history of malignant neoplasia.

Exobuccal examination found a well-limited mandibular tumor that was body to bone, mobile cutaneously, painless, and nonbleeding (Figure 1). The consistency was partly hard and partly firm. The size was approximately 15 cm long. There was no palpable cervical adenopathy. Endobuccal examination found a tumor of the same characteristic with invasion of part of the oral floor and mobility of all right mandibular teeth and teeth 31, 32.

Cranial X-ray (Figure 2) showed a large, mallimited, heterogeneous mandibular opacity of the entire ramus with a "grass fire" image in the periphery and osteolysis of the right mandibular horizontal. Cervical ultrasound did not reveal any cervical adenopathy. The biological workup was unremarkable.

We proceeded to an extended surgical excision consisting of a right interrupting hemimandibulectomy extending back to 33 (Figure 3) and a right submandibulectomy. She did not undergo reconstruction.

Pathological examination revealed an epithelial type osteosarcoma with a focus of squamous differentiation, complete excision and the submandibular gland was free of the tumor process. One month postoperatively, the evolution was favorable with good healing, no signs of recurrence were observed (figure 4).

## Discussion

We report a case of giant mandibular osteosarcoma in a 52-year-old woman without risk factors for malignant neoplasia. We were able to perform a complete resection despite the impossibility of reconstruction due to the size of the tumor.

Pardhe ND and his team reported a case of aggressive and fatal mandibular giant osteosarcoma in a 23-year-old man [4]. They concluded that if it had been diagnosed earlier, it would have added a few precious years to the patient's life.

The exact cause of osteosarcoma remains unknown, possible risk factors have been identified: rapid bone growth, genetic predisposition, benign bone lesions such as Paget's disease and fibrous dysplasia, and environmental factors such as ionizing radiation [5].

In contrast to long bone, osteosarcoma of the mandible occurs at an older age at presentation, longer median survival, more frequent local recurrence, lower incidence of distant metastases, and the possibility of earlier detection due to its location in the face [6].

The treatment of choice for osteosarcoma of the jaw is adequate surgical resection. [7, 8]. Wide radical resection should be done with margins of 1.5 to 2 cm. In the mandible, hemimandibulectomy is usually preferred. Maxillectomy is difficult because of the involvement of adjacent structures such as the maxillary sinus, pterygopalatine fossa and orbital fossa [9].

Radiotherapy and/or chemotherapy are recommended in addition to complete surgery or alone as palliative treatment in incomplete resection and more advanced cases [10].

### **Author's contributions**

Ismael Andrianina Razaka and Tahiriharivelo Randriamanantena participated in the data collection. Simon Carnot Ndrianarivony did the redaction.

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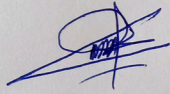
### **Conflict of interest disclosure**

The authors declare that they have no competing interests.

### **Consent statement**

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