



Received: 25-04-2023
Accepted: 05-06-2023

International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

Primary Ameloblastic Carcinoma of the Maxilla: A Case Report

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Abstract

Ameloblastic carcinoma is a rare malignant tumor of dental origin. It mainly affects the mandible but can also involve the maxilla. We report the case of a 59-year-old patient with

primary ameloblastic carcinoma of the maxilla, who was treated with surgery, followed by radiotherapy and chemotherapy.

Keywords: Ameloblastic Carcinoma, Maxilla, Chemotherapy

Introduction

Ameloblastic carcinoma is a rare entity that primarily affects individuals over the age of 70 ^[1]. It can be either primary or secondary, subsequently to an ameloblastoma, and has distinct histological criteria. It can be discovered following a dental extraction.

Medical Observation

We present the case of a 59-year-old patient who presented with left-sided nasal obstruction and swelling of the ipsilateral nasolabial groove. The patient underwent surgical excision without adjuvant treatment.

Histopathological examination of the operative specimen revealed a massively infiltrated squamous mucosa by a tumor proliferation organized in lobules, sheets, and sometimes cystic masses. The tumor cells exhibited a basaloid appearance with mitotic figures and the presence of atypical mitoses. Better-differentiated ameloblastic foci were also observed. These findings were consistent with ameloblastic carcinoma.

Three months later, the patient presented with local recurrence. A facial CT scan revealed a lesion originating from the left maxillary alveolar bone, breaching the cortex, well-demarcated, with irregular borders, measuring 43x34 mm and extending over 50 mm. This lesion caused significant bone destruction and invasion of the left maxillary sinus. After multidisciplinary consultation, the lesion was deemed unresectable. The patient was subsequently treated with CAP-type chemotherapy. He received three cycles of chemotherapy and underwent radiotherapy with a total dose of 50 Gray, delivered in 25 sessions of 2 Gray each.

The patient reported clinical improvement with a reduction in the size of the mass and relief of nasal obstruction. The follow-up CT scan showed a decrease in the size of the tumor mass. The patient remained stable clinically and radiologically for eleven months. However, due to the appearance of clinical progression, a new facio-cervico-thoracic CT scan was requested. The examination revealed a progressive nasosinusal process centered on the left maxillary sinus, measuring 73x72 mm and extending over 56 mm (Fig 1). It was decided to initiate palliative chemotherapy for the patient, specifically 5-Fluorouracil and Cisplatin, of which he has currently received two cycles.



Fig 1: Facial CT scan: A: Sagittal section showing the locally advanced mass. B: Frontal section showing the mass

Discussion

Ameloblastic carcinoma is a malignant tumor of dental origin, typically occurring in the mandible. It requires a more aggressive surgical approach than a simple ameloblastoma. However, due to the rarity of well-documented cases, there is limited reliable data on the biological behavior of this carcinoma. The prognosis is determined by the initial management.

Conclusion

Ameloblastic carcinoma primarily affects adults over the age of 70. The mainstay of treatment is surgery, but radiotherapy may have a role, as well as chemotherapy, although they cannot compensate for suboptimal surgery.

Conflicts of Interest

None.

References

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