

Maxillofacial Radiology 205

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Fig 1.

Panoramic radiograph at initial presentation (Fig.1).

CASE

A 13-year-old male patient presented with a painless expansile swelling of the anterior mandible. Radiographic examination showed a unilocular radiolucent lesion resulting in bony expansion and teeth displacement (Figure 1). The lesion was biopsied and histological examination showed a conventional ameloblastoma. The lesion was marsupialised and was followed up over a period of 96 months (Figure 2-5). Subsequent signs of bone fill and absence of the lesion was noted for the follow-up period of 12 months (Figure 3). The lesion, however, recurred after 68 months with greater amounts of expansion compared to the initial presentation (Figure 4,5).

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Author's contribution

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| 1. Lené Merbold | Primary author | 50% |
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INTERPRETATION

Ameloblastoma (AB) is a benign odontogenic neoplasm arising from epithelial remnants of the dental lamina. ABs can be roughly divided into conventional and unicystic variants. Unicystic ABs present as a unilocular radiolucency on radiographic examination. Conventional ABs can appear as either uni- or multilocular radiolucent lesions.

The treatment of AB is controversial. There are two main surgical approaches, conservative and radical. The former involves marsupialisation/enucleation/curettage of the bony cavity, while radical surgery includes surgical resection with 1-2cm clear bony margins. The margin marked for resection is defined as the distance from the radiologic margin predicted to be disease-free. This is suggested due to the bony infiltration of neoplastic cells beyond the radiologic margins.

The luminal and intraluminal histological variants of unicystic ABs may be managed with conservative treatment. However, due to tumour infiltration beyond the radiological margins in mural unicystic and conventional ABs, treatment of choice is radical-wide surgical excision.

Patients who receive conservative treatment for conventional ABs have a higher propensity for recurrence (90%) than those who receive radical treatment (5%). Post-operative follow-up for all AB cases is critical as more than 50% of recurrences can occur five years post-treatment, with some presenting as early as two years after surgical intervention.

The current case highlights that histological diagnosis and subtyping is essential before the initiation of treatment.

Marsupialisation and enucleation of conventional ABs result in remnants of neoplastic cells even in the absence of radiological signs of disease. Due to the high recurrence rates and the possibility of malignant transformation, resection is advocated for conventional ABs.

Conflict of interest

All authors have indicated they have no potential conflict of interest and no financial relationships relevant to this article to disclose.

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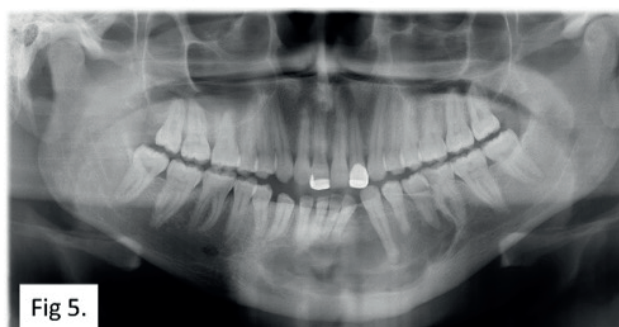
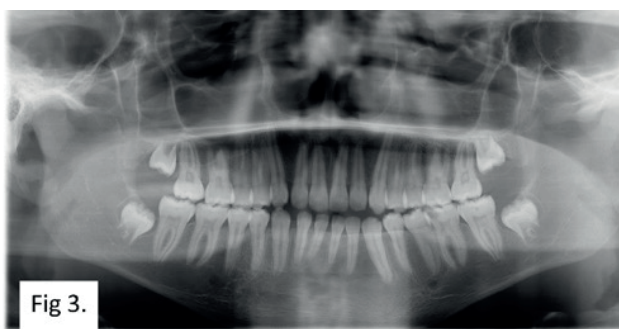
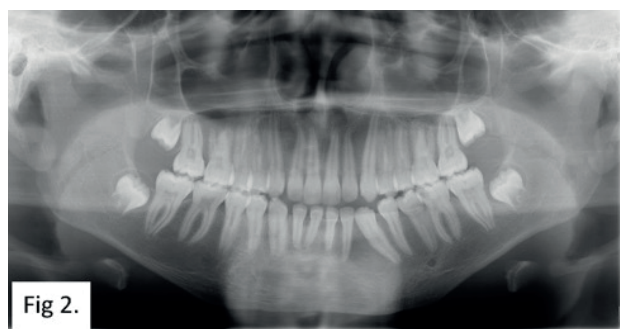
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Ethics

The study was conducted following approval by the Faculty of Health Sciences Research Ethics Committee, University of Pretoria (571/2021). All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2008. This article does not contain any studies with animal subjects performed by any of the authors.

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Panoramic radiographs after 7 months (Fig.2), 12 months (Fig.3), 84 months (Fig.4) and 96 months (Fig.5).