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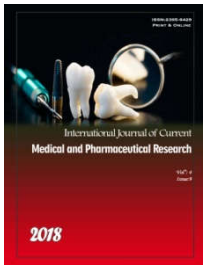

Case Report

MAXILLARY UNICYSTIC AMELOBLASTOMA: A CASE REPORT

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ABSTRACT

Ameloblastoma is an odontogenic tumor arising from the mine organs and fibrous stroma epithelium. It is seen between the ages of 20-50. The lesion does not show any gender discrimination. On radiological examination of a 10-year-old male patient who applied our clinic with a complaint of swelling in the premolar region of the left maxilla, a unilocular and radiolucent lesion was detected. Under local anesthesia, the lesion was enucleated. Histopathologic examination revealed unicystic ameloblastoma. A complete clinical and radiographic improvement was achieved after the operation. The patient did not recur after 6 months

INTRODUCTION

Ameloblastoma is an asymptomatic benign tumor that develops enamel organ and fibrous stroma epithelium(1). Four types of ameloblastoma can be categorized in consideration of histology, clinical attitude and prognosis:1 conventional, intraosseous, solid, or multicystic ameloblastoma; 2 unicystic ameloblastoma (UA); 3 peripheral or extraosseous ameloblastoma; and 4 desmoplastic ameloblastoma. Unicystic ameloblastoma constitutes 15% of all ameloblastomas(2).

Unicystic ameloblastoma was first described by Robinson and Martinez in 1977.This terminology was accepted by the WHO in 1992 (3).UA is more common in mandibles(2). Although ameloblastoma affects all age groups, unicystic ameloblastoma is more common in 2 and 3 decades(4). Dentigerous cyst, keratocystic odontogenic tumor may be considered as a radiologically distinctive diagnosis(5).

UA treatment can be radical or conservative. As a radical treatment, segmental or marginal resection of the lesion can be performed and then reconstructive plaques can be placed. Conservative treatments include enucleation, enucleation followed by administration of the Carnoy's solution or marsupialisation after enucleation(2). The recurrence rate after UA treatment is between 10% and 25%. Many studies have reported that the rate of recurrence after conservative treatment is higher than with radical treatment(6).

The aim of this study is to present the clinical and radiographic features of unicystic ameloblastoma in a 9-year-old male patient.

Case Report

A 10-year-old male patient was admitted to Department of Oral and Maxillofacial Radiology, Faculty of Dentistry, Abant İzzet Baysal University with complaints of swelling in the left upper jaw. It was learned that there was no systemic disease in the medical history of the patient and no dental procedure was performed in the dental history. Patient said that a swelling was occurred on her left maxilla rapidly without pain in two weeks. We viewed deep caries in tooth number 64, inflamed gingiva and vestibule in the left upper jaw area (Figure 1). The panoramic radiograph showed a sclerotic lesion in the premolar region of the left maxillary canine, with a radiolucent lesion area with radio-opacity (Figure 2).There were also superior deplasman in tooth numbered 23 and teeth numbered 64-65 with pathological root resorption. In the images obtained from cone-beam computed tomography (CBCT) taken for the detailed examination of the lesion, the lesion was 20x18x13 mm(the red arrows in figure 3 indicate dimensions of the lesion) in size, with unilocular, border-regulated, mix appereance with hyperdense-hypodense structures (Figure 3a-c).CBCT images showed buccal and palatal cortical cortexes expansion and perforation. Adenomatoid odontogenic tumor,

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ameloblastoma and odontogenic keratocystic tumor were considered as the preliminary diagnosis. Patient was guided oral and maxillofacial surgery. The lesion was removed by excisional biopsy under local anesthesia. Specimen was sent pathology for histopathologic examination. Cystic structure with ameloblast-like columnar cells showing histopathologically reverse polarity and a satellite appearance of reticule-like cells were observed in some areas where epithelium was observed. Unicystic ameloblastoma was diagnosed and the patient was followed up. Clinical and radiographic examination was performed again after 6 months. The patient was asymptomatic and panoramic radiograph showed improvement in the lesion area (Figure 4). The patient had a mesial displacement due to the lesion in the left permanent canine tooth and the direction of the tooth was changed. Therefore, the patient was referred to the orthodontic department for orthodontic treatment.

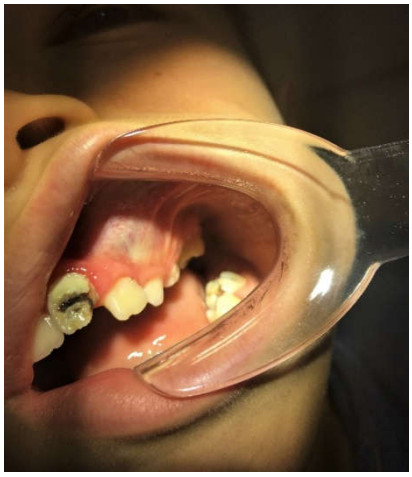


Fig 1 Intraoral appearance of the lesion. Swelling in the maxilla canine-premolar region

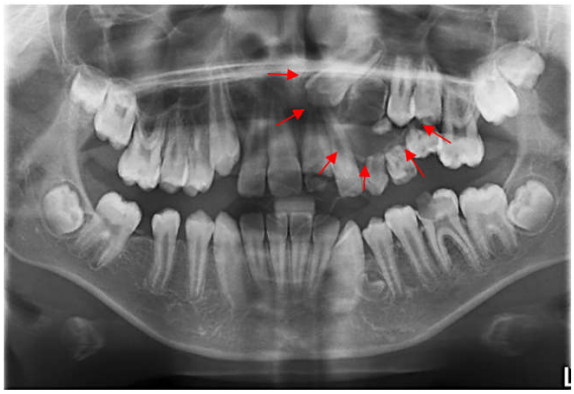
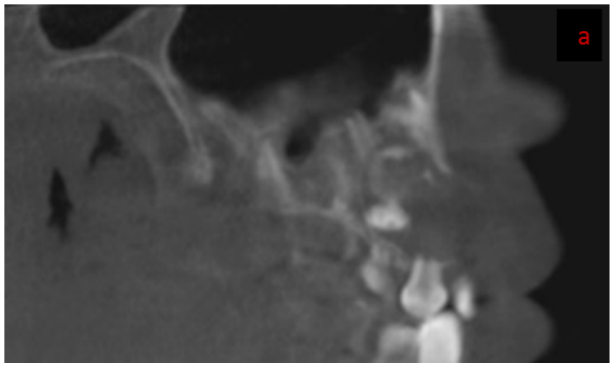


Fig 2 Panoramic radyography view of unicystic ameloblastoma on the anterior maxilla (The red arrows indicate the borders of the lesion)



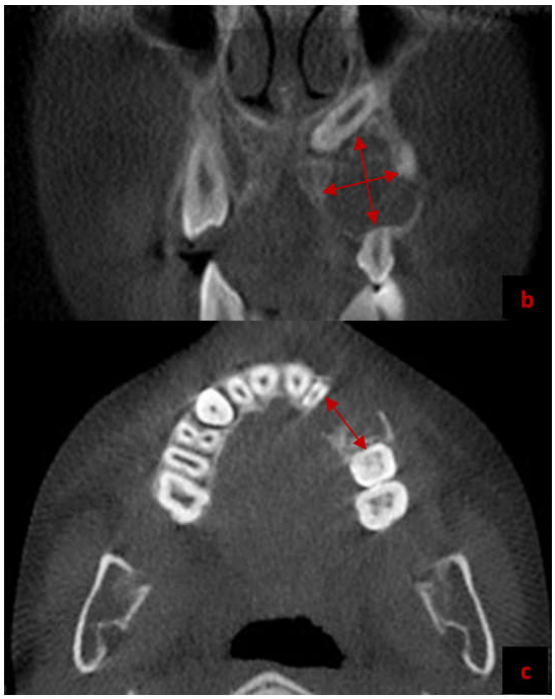


Fig 3 View of the lesion with cone beam computerized tomography (CBCT)(a: Saggital section, b:coronal section, c:axial section)

Fig 4 Panoramic radiography taken 6 months after operation

DISCUSSION

Ameloblastoma is a slow-growing tumor with a high rate of recurrence, prone to local invasion, expansion and destruction of the bones. The most common symptom is as lowly growing painless swelling. Unless the tumor is infected, it is rarely painful. It rarely causes symptoms when there is no nerve involvement. There may be acute symptoms associated with perforation and fistula development in infected cases(7). As in the presented case, unilocular ameloblastoma cases have usually complain of swelling(2).

The unilocular pattern is more common than multilocular patterns, especially in the context of dental impaction, and the affected mandibular third molars are often associated with UA(8). In our case, affected teeth were upper canine and premolar. Approximately 80% of ameloblastomas originate from mandible and 20% from maxilla. There are studies in the literature showing that ameloblastoma affects corpus mandibula, ramus mandibula, posterior mandible and posterior maxillaPatients often have a history of trauma such as tooth extraction and cystectomy.(2, 9-12).In our case, the trauma history was not available.

The choice of treatments for unicystic ameloblastoma is enucleation, application of Carnoy's solution after enucleation, marsupialization and resection. The success rates of these treatments vary. It should be followed up against the possibility of recurrence after surgery.(6) When unicystic ameloblastoma affects teeth in mixed dentition children, it may cause displacement, resorption, dysfunction, and disruption of the jaws. Therefore, patients in this age group should be followed up and the need for orthodontic treatment should be questioned. (1)In our case, the patient was directed to orthodontics after surgery.

There are studies showing that computerized tomography (CT) and magnetic resonance (MR)are used in the diagnosis, treatment and follow-up of ameloblastoma (13). Cone beam computed tomography imaging is an accepted modality for radiographic evaluation of maxillofacial pathologies owing to low radiation dose, high bone resolution, ease of use. CBCT has many benefits on diagnosis, planning and post-treatment follow-up(14).

CONCLUSION

Children should be evaluated clinically and radiologically with respect to the presence of unicystic ameloblastoma and other benign odontogenic tumors that are likely to be seen in the first and second decades of the mixt dentition period. CBCT has many advantages in radiological evaluation of head and neck regions.

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