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CASE REPORT

Ameloblastic fibro-odontoma: Case report with maintenance of the involved teeth

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Summary Ameloblastic fibro-odontoma (AFO) is a rare mixed odontogenic tumor occuring predominantly in young patients, especially in the mandibular posterior region. The most appropriate treatment for AFO has not been chosen, some authors suggest the maintenance of the involved teeth after the enucleation of the lesion. However, others state that teeth preservation would increase the probabilities of recurrences. We report a case of an AFO in a child, uncommonly involving two anterior teeth of the maxilla, that were preserved after the enucleation of the lesion. The 2-year follow-up radiographs showed the correct eruption of both teeth and no signs of recurrence.

Introduction

The ameloblastic fibro-odontoma (AFO) is a rare mixed odontogenic tumor that has the histological features of ameloblastic fibroma combined with the presence of dentin and enamel [1—4]. The AFO is often asymptomatic and may be detected as a result of failure of tooth eruption, or due to swelling or even the progressive bone expansion caused by the tumor [1,5—7]. The lesions are usually diagnosed during the first and second decades of life [7,8], occurring with equal frequency in males and females and usually affecting the posterior mandibular region [2,7]. Radiographically, the AFO exhibits unilocular or multilocular radiolucent appearance with varying levels of radiopacity depending on the

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extent of mineralization. The radiopacities have the same radiodensity as the tooth structure [3,8]. An unerupted tooth is often present within the lesion, either centrally or at one margin. Because AFO is well encapsulated, there is little tendency to local invasion. The prognosis is excellent and recurrences have been rarely described [2,5]. There are some discussions about the best treatment option for the tumor, some authors prefer to preserve the teeth surrounded by the lesion [5], while others do not [2,7]. In this paper, we report an 8-year-old child case presenting an AFO in uncommon location what was completely enucleated with maintenace of both involved teeth, showing a great 2-year follow-up result.

Case report

An 8-year-old white girl with delayed eruption of the maxillary left central incisor and asymptomatic swelling was referred to Barros Barreto University Hospital at Belém, State of Pará, Brazil by a general dental practitioner. Intraoral examination revealed circumscribed expansion of the vestibule on the left side of the maxilla. The mucosa was unaffected. Panoramic and occlusal radiographs were obtained, which revealed an expansive, well-circumscribed, radiolucent lesion with radiopaque areas of irregular shape from the maxillary left central incisor to the deciduous maxillary left first molar. The maxillary left permanent central and lateral incisors were displaced due to tumor growth (Fig. 1C). The patient's medical history was non-contributory.

An incisional biopsy was performed under local anesthesia. Histological analysis of the removed tissue stained with hematoxylin—eosin revealed islands and cords of cuboidal to columnar epithelial cells with central areas resembling the stellate reticulum of the enamel organ. The connective tissue component resembled the dental papilla, with rounded and angular cells and little collagen (Fig. 2C and D). The hard tissue consisted of atubular dentin and enamel matrix (Fig. 2B and E). The specimens obtained from incisional biopsy were diagnosed as ameloblastic fibro-odontoma.

Because of the literature references options of treatment, the surgical staff of our institution was in doubt about the necessity of removing or not both teeth involved by the lesion. However, after taking into account the tumor's features such as its benign behavior and easy enucleation, the surgical staff opted for the preservation of both teeth, in spite of its localization in maxilla. Thus, the tumor was enucleated under general anesthesia (Fig. 1A) and the teeth surrounded by the lesion were maintained (Fig. 1B). Macroscopically, the neoplasia consisted of a hard mass with a corrugated surface (Fig. 2A). The surgical specimen was also submitted to histopathological analysis to confirm the initial diagnosis.

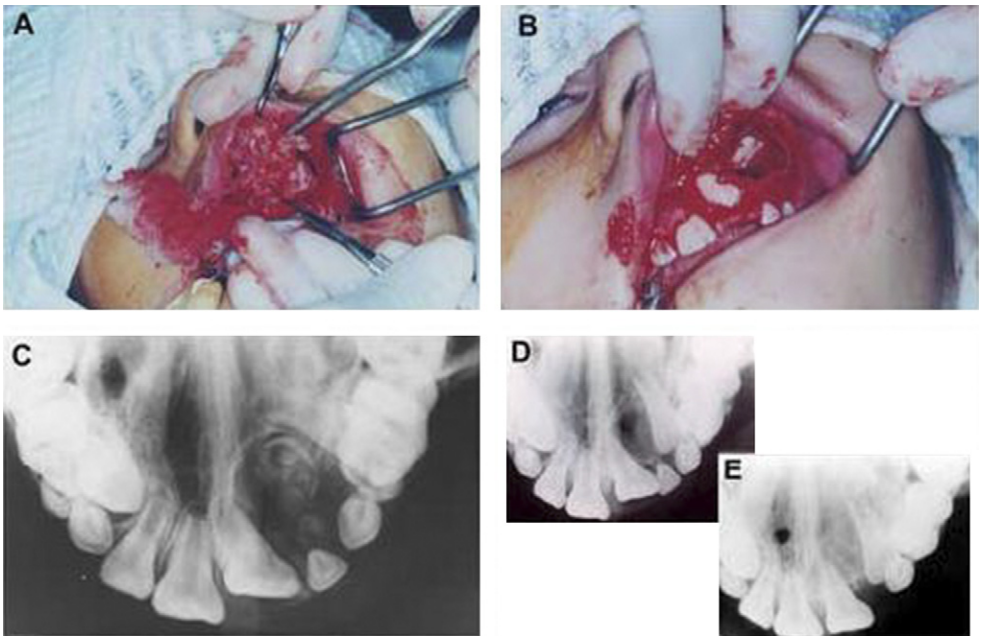

Figure 1 Enucleation of the lesion (A) with maintenance of teeth involved (B). (C) An occlusal radiograph showing a radiolucent lesion with radiopaque areas. Note the displacement of the maxillary left permanent central and lateral incisors. (D) Reveals 6-month and (E) 2-year follow-up examinations exhibiting the healing of the affected bone as well as spontaneous eruption of the lateral and central incisors.