



The Importance of Regular Dental Check-Ups in the Early Diagnosis of Neoplasms: A Case Report of Ameloblastoma



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Citation Mohebiniya M, Jadidi S. The Importance of Regular Dental Check-Ups in the Early Diagnosis of Neoplasms: A Case Report of Ameloblastoma. Case Reports in Clinical Practice. 2025;10(2): 90-92. DOI:10.18502/crcp.v10i2.19904

Running Title Early Dental Checks in Ameloblastoma Diagnosis



Article info:

Received: March 22, 2025

Revised: April 17, 2025

Accepted: April 29, 2025

Keywords:

Neoplasms; Ameloblastoma; Cone-Beam computed tomography; Early diagnosis

Case Presentation

A 51-year-old female presented for her routine annual dental check-up. During the intraoral examination, she reported pain upon pressure applied to the apical portion of the mandibular left first premolar. She was referred for a panoramic radiograph, which revealed a suspected radiolucency in the interradicular region of the left mandibular canine and premolars (Figure 1).

A periapical radiograph confirmed the finding (Figure 2), and cone beam computed tomography (CBCT) was performed.

CBCT revealed a localized, unilocular radiolucent lesion with well-defined corticated borders, extending from the alveolar crest to the apex of the first premolar, measuring 11 mm vertically, 10 mm

buccolingually, and 4.2 mm anteroposteriorly. The lesion caused thinning of the lingual cortical plate, as well as thinning, expansion, and perforation of the buccal cortical plate. The lamina dura and periodontal ligament were not visible in the mesial portion of the first premolar and the distal aspect of the canine. The lesion resulted in severe root resorption of the first premolar and mild resorption of the adjacent canine (Figure 3).

Differential diagnoses included radicular cyst, ameloblastoma, and central giant cell granuloma. Radicular cyst was ruled out through vitality tests. Biopsy and histopathological evaluation confirmed the diagnosis of ameloblastoma, and the patient was referred for surgical management.

Although rare, ameloblastoma is the second most common odontogenic tumor [1]. It grows slowly and often remains asymptomatic in its early stages [2].

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Fig. 1. Panoramic radiograph. A radiolucency in the interradicular area of left mandibular canine and premolars is suspected.



Fig. 2. Subsequent periapical radiograph. The radiolucency is obvious.

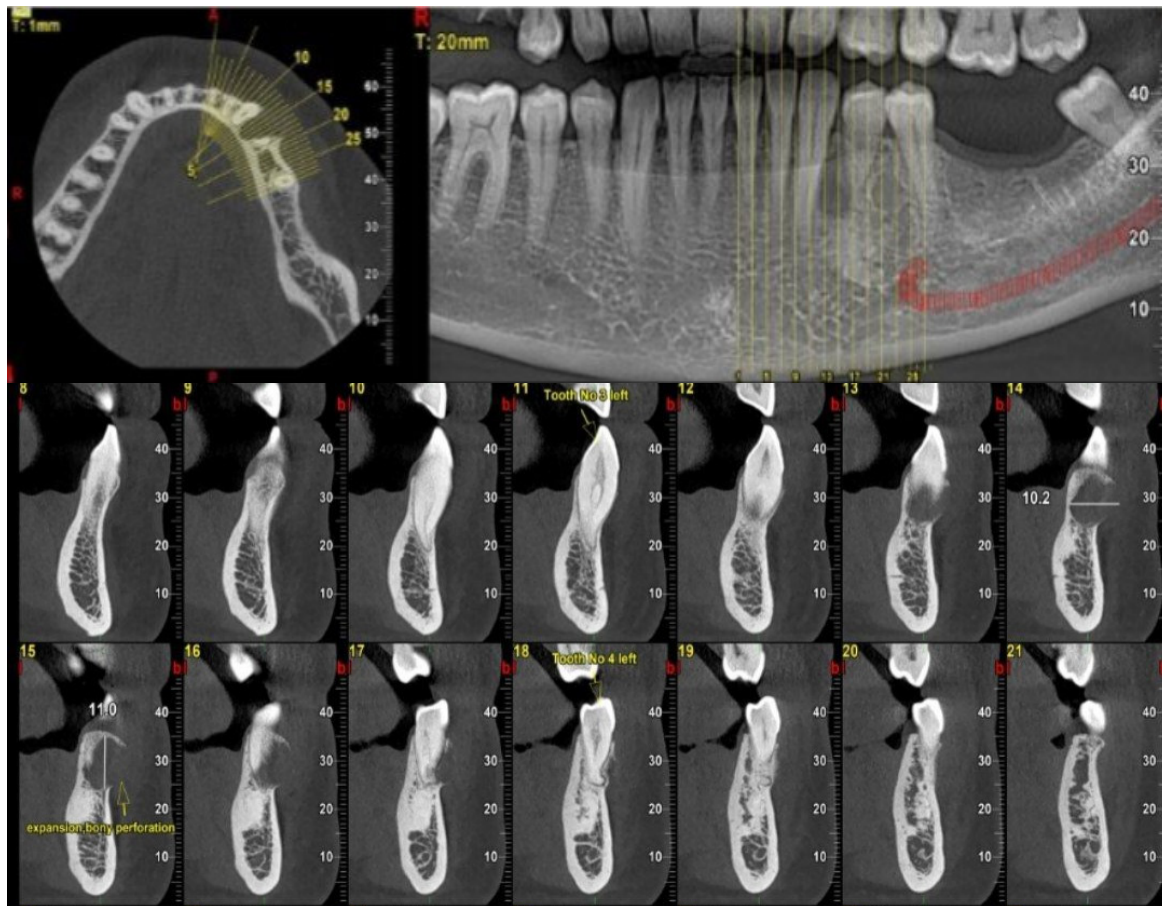


Fig. 3. Cross-sectional cuts of CBCT. The accurate location of the lesion is visible. The localized lesion extends vertically from the alveolar crest to the apex of the first premolar and horizontally from the distal aspect of the canine to the distal aspect of the first premolar. It is oval-shaped with well-defined corticated borders. The internal structure is completely radiolucent and unilocular. Please note the effect of the lesion on the surrounding structures. The lesion caused thinning of the lingual cortical plate and thinning, expansion, and perforation of the buccal cortical plate.

Smaller lesions may be detected incidentally during routine dental check-ups. As the tumor enlarges, facial asymmetry and cortical bone perforation may occur due to failed periosteal bone formation [2]. If left untreated, it can reach significant dimensions [2]. This highlights the critical importance of regular dental check-ups for the early detection of such tumors. Regular dental examinations are essential for early detection, allowing timely intervention and reducing the risk of complications, disfigurement, or functional impairment.

Ethical Considerations

Compliance with ethical guidelines

There were no ethical considerations to be considered in this article.

Funding

No funding was received to assist with the preparation of this manuscript.

Conflict of Interests

The authors have no conflict of interest to declare.

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