

Peripheral Ameloblastoma of the gingiva

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Abstract: Peripheral Ameloblastoma is a benign and rare odontogenic tumor with a slow growing clinical course. It is an asymptomatic lesion and grows as a swelling. We report a case of Peripheral ameloblastoma in the gingiva within the oral cavity which was removed and on histopathological evaluation revealed predominantly plexiform architectural pattern formed by epithelial cells with characteristic reverse polarity.

Keywords: Peripheral Ameloblastoma, Gingiva.

Introduction

Ameloblastoma is an infrequent odontogenic tumor arising from the mandible or maxilla that are locally aggressive and have a low propensity to metastasize¹. It is further classified into four subgroups; the solid/multicystic type, the unicystic type, the desmoplastic and the peripheral type. Peripheral ameloblastoma also known as extraosseous ameloblastoma is the rarest entity in all the subgroups, contributing only for 2- 10% of all ameloblastomas. It was first described by Kuru in 1911 and later the clinical and histopathologic characteristics were defined by Stanley and Krogh in 1959². This lesion grows asymptotically and mostly presents as a painless swelling³. Radical excision is the mainstay of treatment. Conservative enucleation is also a modality for treatment but is associated with high recurrence rate. Due to the rarity of this disease, limited experience about the clinical presentation, treatment and recurrence is reported.¹

Case Presentation

A 23-year-old female patient was referred to Pakistan Institute of medical sciences with a two week history of a slowly enlarging swelling on gingiva. The patient no past history of pain, fever or any other abnormality. Intraoral examination revealed a right sided unilateral soft swelling on the gingiva. A radiograph showed no bony abnormality (erosion or lytic lesion) (Fig. 1).An excisional biopsy of the lesion was performed. Gross examination showed multiple pink white soft tissue fragments of 1x1 cm.

Microscopic evaluation of the gingival lesion showed an ameloblastoma that was arranged in nests with central loose stellate reticulum and characteristic predominantly plexiform architectural pattern formed by epithelial cells with characteristic reverse polarity (Fig. 2). The stroma was scant. Based on the history, examination and microscopy a histopathological diagnosis of Peripheral Ameloblastoma was made.



Figure. 1: X-ray showing a no bony abnormality

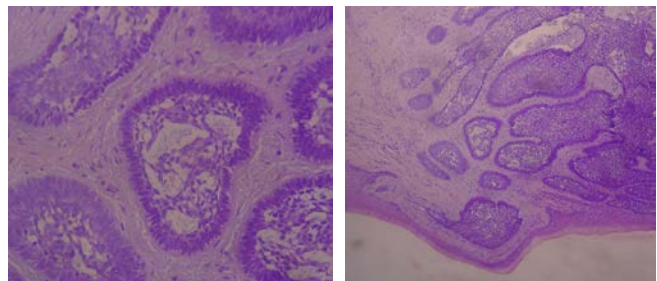


Figure. 2: H&E: Photomicrographs revealing tumor cells arranged in nests with central loose reticulum and peripheral palisading of surrounding epithelial cells. (H&E X 40 and H&E X 10)

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Discussion

Ameloblastoma is a benign and rare tumor of the odontogenic epithelium. The average age for presentation is 52.1 years. Peripheral ameloblastoma's are more commonly reported in males than in females (1.9:1) ⁴. In our case the reporting age was 23 which is unusual age of presentation. The most frequent site reported is the mandibular premolar region, followed by the anterior mandibular region ². These lesions are locally aggressive but rarely metastasize and thus early diagnosis is vital to minimize the extent of surgery. Etiology of this disease is uncertain.⁵The diagnostic criteria of peripheral ameloblastoma include origin from the overlying epithelium, identification of odontogenic epithelium islands in the lesion, and no bone infiltration. The recommended treatment is wide excision down through periosteum. Recurrence has been noted infrequently although few cases have been followed ⁶. Many predisposing factors have been reported, including irritation in the form of extractions, caries, trauma, infection, tooth eruption, nutritional deficits and viral infection especially Human Papilloma Virus (HPV)⁵.

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