CASE REPORTS

ODONTOAMELOBLASTOMA : A RARE ENTITY CASE REPORT

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ABSTRACT

Odontoameloblastoma is a rare neoplasm of odontogenic origin in which there is proliferation of tissue of the odontogenic apparatus in an unrestrained pattern including complete morphodifferentiation, apposition and even calcification. Till date, around 20 cases have fulfilled the histologic criteria of the current World Health Organization histological classification of odontogenic tumors. It affects predominantly young male patient with slight inclination for occurrence in posterior segment of mandible. Review of literature shows only three reported cases in the anterior mandible. Here, we report a case of OA in the anterior mandible.

Key words: Odontoameloblastoma, Odontogenic tumor, odontome, OA
INTRODUCTION

Odontoameloblastoma (OA) is an extremely rare neoplasm, which is defined by World Health Organization (WHO) and Philipsen & Reichart as “A neoplasm that includes odontogenic ectomesenchyme in addition to odontogenic epithelium that resembles an ameloblastoma (SMA) in both structure and behavior.¹ OA contains an ameloblastomatous component together with odontoma-like elements.² This tumor was formerly called ameloblastic odontoma. Thoma et al.³ described the first case in 1944 and since the first edition of the WHO Histological Classification of Odontogenic Tumours,⁴,⁵ the OA still appears as a distinct odontogenic neoplasm⁶ The term OA was included in the 1971 WHO Histological classification of odontogenic tumors listed the various synonyms as ameloblastic odontoma, soft and calcified odontoma, adamantinoma and calcified mixed odontogenic tumor.⁴,⁷ Till now very few well-documented cases have been reported in the medical literature,⁸ we present a case of plexiform ameloblastoma associated with complex odontome involving the mandible.

Observations and result: A 45 year old male patient reporting department of oral medicine and radiology with chief complains of swelling in lower jaw with difficulty in mastication since last 2-3 months. Pt had given history of extraction of 33 to 46 before 6 month. The swelling was smaller in size when first noticed which gradually increased to the present size of 8x4cm with no history of Paresthesia or pus discharge.

Intraoral examination revealed diffuse swelling extending from 35 to 47, obliterating buccal vestibule and lingual sulcus. The swelling was soft to firm, non-tender, non-fluctuant, non-compressible, non-pulsatile with normal overlying mucosa.
On radiographic examination, orthopantomograph revealed multilocular radiolucency from 33 to the 46 and from alveolar crest to the lower border of mandible. Radiolucency is separated by radio-opaque septa and surrounded by corticated border in area of mesial to 46. (Figure 1) Histopathological examination revealed odontogenic cells arranged in form of anastomosing cords with tall columnar ameloblast like cells at periphery with stellate reticulum cells. Ameloblast like cells shows reverse polarity and nuclear palisading. (Figure 3 & 4) The ameloblastic components intermingled with large areas of conglomerate masses of dentin and cementum is are also seen. (Figure 5 & 6)

**DISCUSSION**

OA is rare, aggressive mixed odontogenic tumor having incidence of 0.5%. It is characterized by the simultaneous occurrence of an ameloblastoma and a compound or complex odontoma in the same tumor mass. The epithelial proliferation forms islands or intermingled cords that produce the follicular or the plexiform patterns typical of ameloblastoma, but unlike conventional ameloblastoma, these induce the production of mineralized dental tissues on the adjacent mesenchymal cells and may respond to these changes with the production of enamel. OA occurs predominantly in young patients between the age of 6 months to 40 years with a median age of 20.12 year and has a predilection for males. It usually occurs in the posterior segments of either jaw, with a slight inclination for the mandible with predilection for molar premolar region and only three cases have been reported involving the anterior segment of the mandible. In the present case, the patient was a 45 year old and the lesion developed in anterior mandibular area which is a less common age and location of the patient involved.
Clinically, OA unveiling as a slow growing painless mass that expands the alveolus and vestibular cortex, and disturbances in occlusion.

Radigraphically, the tumor presents a radiolucent, destructive process that contains calcified structures resembling mature dental tissue. These radiographic features were also simulate in our cases.13

CONCLUSION:

The histopathological features of the OA are complex. There is a proliferating odontogenic epithelium portion similar to that of an ameloblastoma, generally presenting a plexiform or follicular pattern. This epithelial portion appears intermingled with dental tissues of variable degrees of maturity in the form of developing rudimentary teeth, resembling a compound odontoma or conglomerate masses of enamel, dentin and cementum, as seen in a complex odontoma.2 Histopathologically the presented case is of Plexiform ameloblastoma with complex odontome.

Because of the rarity of OA and its similarity to other odontogenic lesions, a pre-operative diagnosis is difficult to achieve based only on the clinical and radiographic features of the lesion. Nonetheless, oral radiologists and surgeons should be aware of the existence of these odontogenic tumors in order to properly treat and follow-up patients who might present them.
REFERENCE


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