Ameloblastoma — An enigma

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ABSTRACT

Ameloblastoma remains an enigmatic group of oral tumors, inspite of being so frequently encountered and widely discussed. Out of the total ameloblastomas reported, 81% cases have been in the mandible, of which 70% are in the molar-ramus area. We report two cases of ameloblastoma with misguiding radiographic and clinical pictures, which made us ponder that common oral lesions are sometimes, the most tough and confusing to diagnose.

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INTRODUCTION

Ameloblastomas are odontogenic in origin, histologically classified as different types i.e, follicular, plexiform, acanthomatous, granular cell, basal cell, clear cell and desmoplastic.^{1–3} Large sized tumors often show combination of microscopic patterns. Although ramus, body and angle of the mandible constitute 90% of the case, variations in site of occurrence have been reported.^{4,5} In this article, we present two cases of mixed ameloblastomas occurring in the anterior mandible, crossing the midline and perforating the cortical plate.

CASE REPORT 1

A 74-year-old female complained of a painless swelling in the anterior portion of the lower jaw with inability to close the mouth for the past 6 months (Fig. 1A). She underwent tooth extraction 2 years ago and had noticed a mass growing in that area approximately a year back. Extra oral examination revealed labial fullness and intraorally a diffuse swelling of 3 × 2 cm, involving the lower anterior alveolar ridge and floor of the mouth was noticed (Fig. 1B). Radiographic examination revealed a multilocular radiolucency extending from lower left canine to lower right

canine region. Occlusal view revealed a soap bubble like appearance with flecks of radio-opacity (Fig. 1C). The lesion was enucleated and microscopic examination revealed a mixed ameloblastoma with some follicles showing squamous metaplasia while some showed granular cells (Fig. 1D).

CASE REPORT 2

A 35-year-old female reported with a painful swelling in the chin region which intermittently increased in size. A history of trauma to that region during childhood was elicited. Intraorally labial and lingual cortical plate expansion in relation from lower left central incisor to right canine with mucopurulent discharge from the swelling was seen (Fig. 2A). Radiographically, a solitary well defined radiolucency extending from lower left canine to lower right first premolar was evident with root resorption (Fig. 2B). The lesion was enucleated and histopathology revealed follicular ameloblastoma with areas of desmoplasia (Fig. 2C, D).

DISCUSSION

“Hybrid” lesion of desmoplastic ameloblastoma and conventional ameloblastoma is an unusual variant of

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Fig. 1 A: Clinical photograph of the patient. B: Intraorally, diffuse swelling of 3 × 2 cm, involving the lower anterior alveolar ridge and floor of the mouth. C: Occlusal radiographic view revealed a soap bubble like appearance with flecks of radio-opacity extending from lower left canine to lower right canine region. D: Microscopic examination revealed numerous follicles of tumor cells dispersed in a collagenous stroma. Some follicles showed squamous metaplasia while some showed granular cells suggestive of mixed ameloblastoma (10×, H/E).

ameloblastoma, which was first described by Waldron & El Mofty in 1987. Hybrid lesions show typical microscopic features of desmoplastic ameloblastoma characterized by pronounced stromal desmoplasia together with areas of follicular, plexiform and acanthomatous ameloblastoma. Ameloblastoma is notorious for its recurrences although it is benign in nature. Due to this it is of great importance not only to the surgeons but also to the private practitioners of dentistry.⁶

The cases reported, presented with confusing and misleading picture of ameloblastoma clinically and radiographically. They had radiolucencies which crossed the midline suggesting potentially aggressive clinical behavior. Perforation is rare in ameloblastomas. In case 2 there was expansion and perforation of the buccal cortical plate.⁷ Literature reveals that majority of ameloblastomas occur in the mandible regardless of geography and race; with exception of desmoplastic ameloblastoma which is seen more in the anterior maxilla and needs a regular follow up.^{8,9} Case 2 revealed a conventional ameloblastoma coexisting with a desmoplastic stroma in the posterior mandible.

A hybrid tumor should have 2 distinct lesions presenting as a single entity. Case 2 where follicular and desmoplastic patterns are seen together, is a rare entity, that may possibly add upto the existing reported cases.^{10,11}

Our cases were in accordance to Reichart et al who in 1995 reported that blacks showed increased predilection for ameloblastomas in the anterior region of the jaws. Potdar (1968) conducted a study in Bombay and suggested that in Indians, anterior mandible may be affected relatively more. Adekaye (1980) found that only insignificant proportions (1.8%) of these lesions were confined to the symphysis.¹²

There appears to be rather general agreement that these variations in histopathology patterns do not have any significant bearing on prognosis except unicystic ameloblastoma because of less aggressive behavior and favorable prognosis. Though very little information appears in literature either due to insufficient number of cases reported or due to variations in the clinical or radiological criteria, the pathologist may sometimes fail to diagnose the tumor or differentiate it from either ameloblastoma or other odontogenic tumors. Thus, it becomes our duty to keep a vigil on

Fig. 2 A: Intra oral examination revealed labial and lingual cortical plate expansion in relation from lower left central incisor to right canine. B: Radiographically there was a solitary well defined radiolucency extending from lower left canine to lower right first premolar. C, D: Microscopic examination revealed small islands and cords of odontogenic epithelium in a densely collagenized desmoplastic stroma suggestive of follicular ameloblastoma with areas of desmoplasia.

each and every case coming in our clinics and make a careful diagnosis with proper history for future ease.

CONFLICTS OF INTEREST

All authors have none to declare.

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