Case Report

AMELOBLASTIC FIBRO-ODONTOMA : A clinical dilemma

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ABSTRACT

Ameloblastic fibro-odontoma is relatively a rare mixed odontogenic tumor representing neoplastic as well as hamartomatous changes.It is a rare benign tumor representing approximately 3 % of all odontogenic tumors. which usually occurs in the first two decades of life, with an average age of 9 years with no gender predilection. A case of 12 year old male involving left angle and ascending ramus and its radiographic, clinical symptoms and histological features is described herewith. A conservative surgical approach including enucleation followed by chemical curettage was done.

Key words- ameloblastic Fibroma, odontogenic, benign tumour

INTRODUCTION

Ameloblastic fibro-odontoma is a benign tumour of odontogenic origin and relatively rare in occurance. It is characterized by simulataneous proliferation of ectodermal & mesenchymal components of odontogenic tissue with active production of hard tissue constituents like denttin,cementum& enamel matrix[1]. Radiologically, it demonstrates mixed radiopaque & radiolucent areas of histologically shows features of both ameloblastoma & odontoma. A case of 12 year old male is reported here.

CASE REPORT

A 12 year old boy reported to the department with pain and swelling In left lower third of face. Extraoral examination reveals a firm,tender swelling on lower third of face of around 6cms*4cms extending 2cms from the commissure of lip to the angle of mandible.(fig 1,2). Intraoral examination reveals missing 36 and 37 with presence of swelling at the same region(fig3). Orthopantogram revealed a radiopaque as well as a radiolucent at the angle region and ascending part of ramus region respectively with the presence of a submerged 36(fig 4). Patient was subjected to CBCT examination for determining the dimensions of the lesion which revealed the bucco-lingual expansion of the lesion as well as the degree of osteolysis at the site involved(fig5).

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The lesion was subjected to surgical excision after which the excised specimen was sent for histopathological diagnosis(fig6). Within the specimen,there was proliferating immature odontogenic epithelium which was suggestive of ameloblastic fibro-odontoma. The wound healing was satisfactory.

DISCUSSION

Ameloblastic fibro–odontoma (AFO) is defined by the World Health Organization (WHO) as a neoplasm consisting of odontogenic ectomesenchyme resembling the dental papilla, epithelial strands and nests resembling dental lamina and enamel organ. These tumours form group pathologic conditions related by the fact that they are overgrowths of the tooth tissue or tooth forming tissue[2]. AFO is a mixed odontogenic tumor and shares features with ameloblastic fibroma (AF) and odontoma. The most common causes include developmental malformations, reactive hyperplasias, and benign neoplasms.

Ameloblastic fibro-odontoma is an immature complex odontoma and therefore represents a hamartomatous proliferation rather than a neoplastic one. Hooker reported ameloblastic fibro odontoma in 1967[3].

Most patients present with a painless,slow growing, expanding tumour, commonly associated with an unerupted tooth. Radiographically the lesion appears to be unilocular or multilocular radiolucent areas with variable amounts of calcifications that has a similar radiodensity of a tooth structure[4].

Histologically, AFOs are composed of islands, cords and strands of distinctive odontogenic epithelium in a cellular stroma, its components resembling stages of the developing tooth[5].

Treatment modalities includes enucleation of the lesion along with the use of adjunctive therapies like mechanical curettage, chemical curettage or cryotherapy. AFO are

reported to recur only rarely. Unlike ameloblastic fibroma, AFO is not generally associated with a malignant transformation

Fig 1: Extraoral examination ; Frontal view

Fig2: Extraoral examination ; Lateral view

Fig 3: Intraoral examination

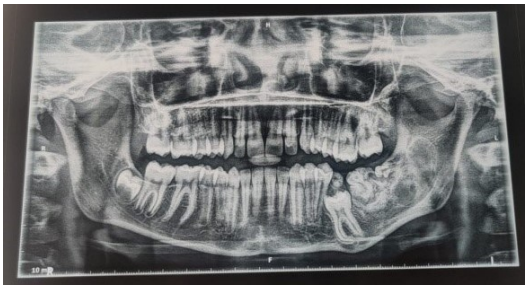

Fig 4 : OPG examination

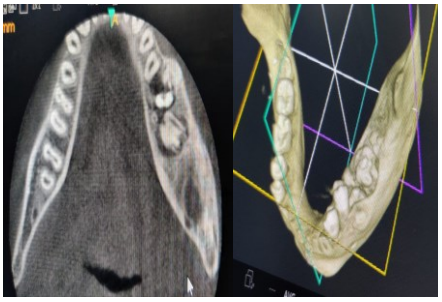

Fig 5: CBCT examination

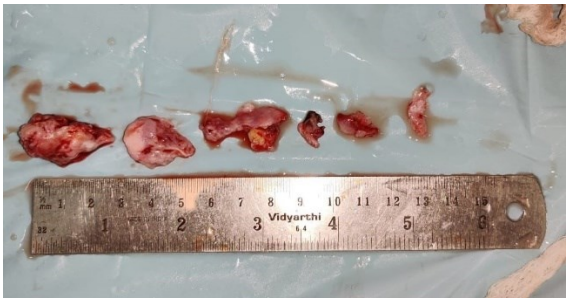

Fig 6: Excised Specimen

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