

CASE REPORT

ADENOMATOID ODONTOGENIC TUMOUR OF MAXILLA: A CASE REPORT

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ABSTRACT: Adenomatoid Odontogenic Tumour (AOT) is an uncommon benign odontogenic tumour which is more common in females and occurs usually in the second decade of life, and most commonly in the anterior maxilla.¹ A 18 year female presented with a painful, radio opaque lesion in the right anterior maxilla and with history of tooth extraction, was initially diagnosed cytologically as odontogenic cyst. On clinical examination, loose tooth was noted with bony swelling in the right anterior maxilla. After excision of the lesion, histopathological examination was done, which showed the features of AOT.

KEYWORDS: Adenomatoid odontogenic tumour, Maxilla, Odontogenic Cyst.

INTRODUCTION: Adenomatoid odontogenic tumor or adenoameloblastoma is a benign lesion that probably arises from the odontogenic epithelium of the dental lamina complex or its remnants.^{1,2} It is more common in females and occurs most frequently in the second decade of life, and the most frequent location is anterior maxilla,³ and comprises of 3% of all odontogenic tumours.⁴ Both central and peripheral forms occur. Radio graphically, the central variants are comprised of a follicular type (associated with the crown of an embedded tooth) and an extra follicular type (no embedded tooth),⁵ and may appear cystic radiographically. Although the tumour expands, it is not invasive and does not recur after conservative surgical therapy.⁶

CASE HISTORY: An 18 year female patient presented with a painful well-circumscribed intraosseous lesion in the right anterior maxilla, with history of tooth extraction. Radiographs revealed a radio-opaque globular swelling in the right anterior maxilla, with an embedded tooth. FNAC was done and the aspirate smears showed few clusters of columnar to cuboidal epithelial cells and was reported as Odontogenic cyst. Surgical excision of the swelling was done and the specimen was received for histopathological examination. Grossly, intraosseus swelling was noted in the maxilla with cystic space. Microscopic examination showed epithelial cells arranged in well circumscribed and whorled patterns with follicular structures and peripheral palisading in some clusters, and areas of calcification at some foci, and hence diagnosed as AOT.

DISCUSSION: FNAC of the lesion was difficult to perform due to the intraosseus location and repeated aspirations yielded scant aspirates showing scant cellularity, prompting the cytological diagnosis of Odontogenic cyst. Histopathological examination revealed the diagnostic features clearly enabling the proper diagnosis of AOT. Gunhan O et al ⁷ described the cytological features of AOT as presence of sheets and tubules of small monomorphic epithelial cells with peripheral palisading by columnar cells and presence of central hyaline globules in some tubules. AOT is usually categorized as an odontogenic benign tumour consisting of a disorderly mixture of

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odontogenic epithelium and odontogenic ectomesenchyme with calcification.⁸ hence it is considered as a benign slow growing hamartomatous lesion, rather than a true neoplasm.⁹

CONCLUSION: Cytological diagnosis of AOT is possible but sometimes difficult due to the intraosseous nature of the lesion and due to presence of cystic areas in some cases, but proper localization of the solid areas of the lesion, using appropriate needle and expertise can enhance the cell yield and help in the cytological diagnosis of this entity, and to differentiate it from odontogenic cyst.

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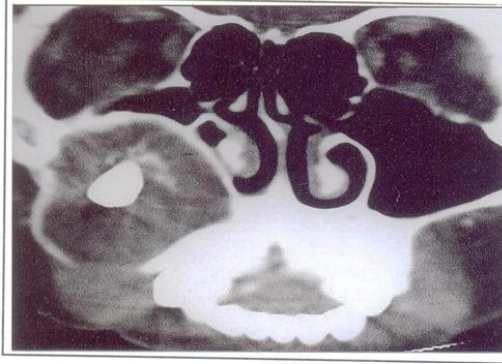


Fig. 1: Radiograph of OAT showing a radio-opaque globular intraosseous swelling in the right maxilla with an embedded tooth

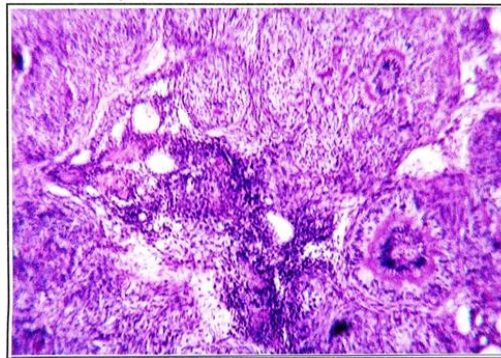


Fig. 2: Histological picture of OAT showing epithelial cells arranged in well-circumscribed, whorled patterns with follicular structures and occasional palisading patterns and focal areas of calcification (H & E x100)

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