

Case Report

“Two Third’s Tumor” of Maxilla: A Case Report

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ABSTRACT

Adenomatoid odontogenic tumor is a rare benign tumor and accounts for only 1% of all odontogenic tumors. AOT is a slow growing tumor that most commonly associated with an impacted anterior tooth usually in Maxilla. The present article describes a case of AOT associated with an impacted 13 in a 22-year-old female patient with radiographic features and differential diagnosis.

Keywords: AOT (Adenomatoid odontogenic tumor), OPG (Orthopantomograph), CBCT (Cone Beam Computed Tomography).

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INTRODUCTION

Adenomatoid odontogenic tumor was first described in 1901 and is of epithelial in origin.¹ The histogenesis of AOT is still uncertain and sometimes categorized as a hamartomatous lesion. AOT is sometimes referred as Two Third’s tumor because it occurs in the maxilla in about 2/3 cases, about 2/3 cases in young females, 2/3 cases associated with impacted tooth, and affected tooth is canine.² AOT is a slow growing, benign, non-invasive tumor and non-infiltrating to the bone.² It arises from odontogenic epithelium because it occurs in the tooth-bearing areas of the jaws, is often associated with the impacted tooth, and has various components of the enamel organ, dental lamina, reduced enamel epithelium, and/or their remnants.³

CASE PRESENTATION

A 22-year-old female patient presented with swelling on right upper back jaw region of 10 days duration. The swelling was slow in onset and gradually increased in size. There was no history of trauma, fever or pus discharge with swelling. There was no sign of general lymphadenopathy. Extra oral examination revealed diffuse, firm swelling on right middle one third of the face (Figure-1)

Intraorally, a solitary swelling was present measuring about 3×3 cm, extending from marginal gingiva of right lateral incisor to first premolar on the same side, obliterating the vestibule. On palpation, swelling was soft, fluctuant and non-tender. On examination 13 was missing and retained deciduous, 53 was present (Figure-2).



Figure 1-Extraoral Profile



Figure:2-Swelling on the Labial vestibule

Considering all clinical features such as missing tooth and patient's symptoms, radiographs such as orthopantomogram and CBCT were performed. OPG revealed a well-defined unilocular radiolucency with well corticated margins noted in the right side of maxilla which is extending mesio-distally from the distal root surface of 11 to mesial root surface of 14 region and superior-inferiorly from alveolar crest to uplifting the floor of the maxillary sinus. The lesion is homogenously radiolucent with horizontally impacted 13 lying at the roof of the right maxillary sinus with retained 53 with completely resorbed roots(Figure -3).

INVESTIGATIONS



Figure:3 -OPG showing unilocular radiolucency with impacted right canine

To know the exact extension of the lesion in all 3 planes CBCT was done. CBCT revealed well defined, unilocular, labially expansile hypodense lesion evident in relation to Right Anterior Maxilla which is extending mesiodistally from distal root surface of 11 to mesial root surface of 14 and superio-inferiorly from alveolar crest to uplifting the floor of maxillary sinus. The internal structure of lesion is homogenously hypodense without any loculations and calcifications with horizontally impacted 13 and retained deciduous 53 with complete root resorption. Complete destruction of labial cortex and partial breaching of palatal cortex noted in the region of 13. Dimensions of the lesion mesiodistally 29.5mm, labiopallatally 24.7 mm, and superoinferiorly 27.5mm (Figure- 4,5,6)

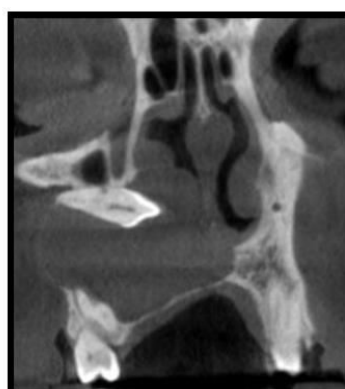


Figure:4,5,6- 3D view with coronal and sagittal plane showing unilocular hypodense lesion with horizontally impacted canine

Routine blood investigations were advised and found to be normal. FNAC was done under L.A. with antibiotic coverage and Cheesy material aspirated followed by blood -tinged fluid and sent for histopathological evaluation.

DISCUSSION

The first report of AOT was made by Steensland's in 1905, who defined it as epithelioma adamantinum.⁴ The current term of AOT was first given by Dreyblatt in 1907.⁵ AOT is a slow growing lesion and constitute only 3% of all odontogenic tumors with female predilection in second decade of life and usually associated with maxillary impacted canine.⁶ There are three clinicopathological variants of AOT, namely intraosseous follicular, intraosseous extrafollicular and peripheral. The follicular variants are mostly common in maxilla, whereas extrafollicular variants are common in mandible. The most common odontogenic cyst to be differentiated from the AOT is dentigerous cyst. Dentigerous cyst is most predominantly seen in the mandibular posterior region whereas AOT in the maxillary anterior region. The next lesion to be differentiated is keratocystic odontogenic tumor (KCOT) and Unicystic ameloblastoma (UA). Both KCOT and UA are more common in the mandibular posterior regions.⁷ In present case 22-year-old female patient reported with a history of swelling in the upper back jaw region of 10 days duration with retained deciduous canine and missing permanent canine. Imaging modalities including both conventional and advanced were taken to rule out the odontogenic cyst. Based on complete radiographic and blood investigation surgical treatment was done under local anaesthesia.

CONCLUSION

AOT can be considered as a differential diagnosis of the swellings in the maxillary anterior region. Conservative surgical enucleation is the treatment of choice as the lesion a well- encapsulated lesion. Although recurrences are rare, follow-up is recommended.

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