

ADENOMATOID ODONTOGENIC TUMOR EXTRAFOLLICULAR ADENOMATOID ODONTOGENIC TUMOR OF THE MAXILLA : A CASE REPORT

Sumit Majumdar, Divya Uppala*, Sreekanth Kotina

Department of Oral Pathology, GITAM Dental College, Rushikonda, Vizag, India

ARTICLE INFO

Corresponding Author:

Divya Uppala
Department of Oral Pathology,
GITAM Dental College, Rushikonda,
Vizag, India.

Key words: Adenomatoid
Odontogenic Tumor, Extrafollicular,
Resorption, Adenomatoid

ABSTRACT

Adenomatoid Odontogenic Tumor (AOT) is a epithelial tumor with an inductive effect of odontogenic ectomesenchyme. This slowly growing tumor, also considered as a hamartoma is more common in females. The follicular/pericoronal type being more common, is more frequently described in literature. This article presents a case of AOT which is extrafollicular which caused resorption of multiple teeth.

©2013, IJMHS, All Right Reserved

INTRODUCTION

The Adenomatoid Odontogenic Tumor (AOT) is an epithelial tumor with an inductive effect of odontogenic ectomesenchyme. Philipsen and Brin introduced the term AOT, which was later adopted by the WHO classification in 1971[1,2] it is a slowly growing excapsulated, with a single histomorphological pattern with whorled nodules of spindle cells, plexiform double cell strands and formation of microcystic or duct like spaces[3]. Females are affected twice as commonly as males with a ratio of 1:1.9. More than 70% of these tumors occur in the second decade of life[4]. More than 95% of all cases occur within the bone, predominantly in the anterior maxilla. The lower and upper canine area is the predilection site of this lesion[5,6].

CASE REPORT

A 38 year old female patient came with a chief complaint of swelling in the upper right front teeth region since 2 months. Patient presented with a history of swelling which was pea sized initially and increased to the present size with no history of pain or discharge.

On extraoral examination, facial asymmetry was observed due to the swelling in the middle third of face on the right side. On intra oral examination a well defined swelling was seen from the distal aspect of 13 to mesial aspect of 15 which is round, firm with regular surface, distinct edge with no visible palpations, obliterating the vestibule extending from gingival margin to muco buccal fold. On palpation all inspector findings are confirmed. The swelling was non tender, firm to hard, non reducible with no signs of bleeding or discharge. Orthopantogram revealed a well defined unilocular radiolucency extending from distal aspect of 13 to mesial aspect of 15. Root resorption was observed in relation to 13, 14.

On aspiration straw coloured fluid is obtained which is about 4ml in volume, watery consistency with no odour/particles. Provisional diagnosis was given as periapical cyst and enucleation was done with the removal of 13, 14 and 15.

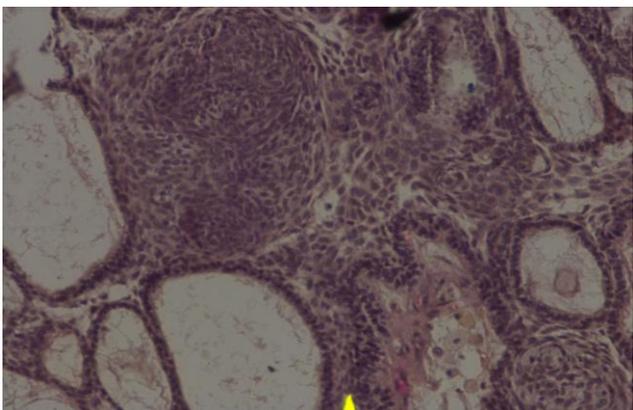
The hematoxylin and eosin stained soft tissue section shows a capsulated tissue exhibiting highly cellular arrangement of cuboidal cells and low columnar cells which are arranged in whorls, ductal and ring like and rosette pattern. The section also shows characteristic duct like structures lined by a single row of columnar epithelial cells with an amorphous eosinophilic material.

DISCUSSION

Adenomatoid Odontogenic Tumor can easily become an obstacle in the way of eruption of the permanent canines and the follicular type of AOT arises. This simulates the dentigerous cyst unless the radiolucency extends apically along the root past the cemento enamel junction[7]. The main types of AOT include follicular, extrafollicular, and peripheral with the follicular being most common and makes up 70% of the cases. The extrafollicular type like in our case presents as a well delineated radiolucent lesion. In some isolated cases root resorption, perforation of the bone and invasion of the maxillary sinus has also been observed. The other variant the peripheral type which is the extraosseous counterpart may show erosion of the alveolar bone crest[8,9].

The most likely source of the AOT are the residues of dental lamina and the odontogenic epithelium adjacent to the reduced enamel epithelium. The patient described here paper presented with the size of AOT and also with root resorption with no evidence of calcification. Till date a very few cases have been described with root resorption like in the present case. Histopathologically the lesion consists of proliferating epithelium, with areas of spindle and polyhedral cells in a swirled pattern forming nodules. Cystic spaces of different sizes may be seen between the nodules, they are usually referred as "duct like spaces"[9,10,11,12].

Enucleation of the tumor followed by curettage is the treatment of choice, moreover the thick capsule aids in enucleation. The risk of recurrence is extremely low and malignant transformation has never been reported.



REFERENCES

1. Philipsen HP, Birn H. The adenomatoid odontogenic tumor; Ameloblastic adenomatoid tumor or Adeno-Ameloblastoma. *Acta Pathol Microbiol Scand* 1969; 75; 375-98.
2. Pindborg J J, Kramer IRH. WHO international histological classifications of tumors.no.5 Histological typing of odontogenic tumors, jaw cysts and allied lesions.1st ed. 1971, Berlin; springer-verlag.
3. Philipsen HP, Reichert PA (1998) Adenomatoid Odontogenic Tumor: facts and figures. *Oral Oncol* 35, 125-131.
4. Marx RE, Stern D (2003) *Oral and Maxillofacial Pathology: a rationale for diagnosis and treatment.* Quintessence Publishin, Hanover park, 609-612.
5. Rick GM (2004) Adenomatoid Odontogenic Tumor. *Oral maxillofac Surg Clin North Am* 16, 333-54.
6. Lee JK, Lee KB, Hwang BN (2000) Adenomatoid Odontogenic tumor: a case report. *J Oral Maxillofac Surg* 58, 1161-1164.
7. Swasdison S,Dhanuthai K, Jainkittiivong A, Philipsen HP (2008) Adenomatoid odontogenic tumors: an analysis of 67 cases in a Thai population. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 105, 210-215.
8. Garg D, Palaskar S, Shetty V.P, Adenomatoid Odontogenic tumor – hamartoma ot true neoplasm: a case report. *Journal of Oral Science*, Vol 51, No.1, 155-159, 2009.
9. Nigam S, Gupta SK, Chaturvedi KU (2005) Adenomatoid odontogenic tumor – a rare cause of jaw swelling. *Braz Dent J* 16, 251-23.
10. Nomura M, Tanimoto K, Takata T (1992) Mandibular adenomatoid odontogenic tumor with unusual clinicopathologic features. *J Oral Maxillofac Surg* 50, 282-285.
11. Dayi E, Gurbuz G, Bilge OM (1997). Adenomatoid odontogenic tumor: case report and review of the literature. *Aust Dent J* 42, 315-318.
12. Chuan - Xiang Z, Yan G (2007). Adenomatoid Odontogenic Tumor: a report of a rare case with recurrence. *J Oral Pathol Med* 36, 440-443.