

## ADENOMATOID ODONTOGENIC TUMOR CASE REPORT

Shandilya Ramanojam, Mayur Vilas Limbhore, Pallavi Rathi, Vikrant Sane, Adil Mevawala

Department of Oral and Maxillofacial Surgery

Bharati Vidyapeeth Dental College, Katraj, Pune, Maharashtra, India-411030

Received on : 10-02-2019

Accepted on : 04-04-2019

### ABSTRACT

Adenomatoid odontogenic tumor is the most common tumor between second and third decade of life. Its is always associated with impacted teeth. Also location is most common in maxillary anterior tooth (1).

**KEYWORDS:** Adenomatoid odontogenic tumor, Impacted teeth, cone beam computed tomography.

### INTRODUCTION

Adenomatoid odontogenic tumor (AOT) is an uncommon benign odontogenic lesion that affects young patients associated with an impacted tooth, usually canine. AOT represents 3–7% of all odontogenic tumors (1-3).

The histogenesis of AOT is still uncertain and sometimes categorized as a hamartomatous lesion. The tumor is most commonly associated with maxilla and impacted teeth. Most common impacted teeth associated with AOT is canine (4).

### CASE REPORT

A 10-year-old female child reported to department of Oral and maxillofacial surgery with chief complaint of swelling and missing teeth in the right maxillary region. Swelling was diffuse and slowing growing since 8 to 10 days. On intraoral examination we observed that there was missing tooth associated with swelling. There was a smooth circumscribed swelling 2 × 3 cm size, with well-defined margins in the right maxillary region obliterating the buccal vestibule. The buccal cortex was expanded over the surface of the swelling. Extra oral examination revealed diffused swelling involving right anterior maxilla with moderate obliteration of nasolabial fold fig 1. Mild tenderness was present. Aspiration of the swelling yielded 2 ml of straw color fluid mixed with blood. Radiographic findings revealed well-circumscribed radiolucent lesion with impacted teeth canine tooth. Computed tomography findings showed well-defined cystic lesions present with impacted canine fig 2. Based on clinical and radiographic findings few differential diagnosis were made like dentigerous cyst, adenomatoid odontogenic tumor and calcifying odontogenic cyst. Surgery was planned under sedation

and local anesthesia. Infraorbital, posterior superior, nasopalatine and greater palatine nerve block was given. Crevicular incision was taken and site was exposed. Bony window was created with help of motor and handpiece using round bur. Lesion was enucleated in toto along with impacted canine. Cavity was curetted and irrigation was carried out betadine and normal saline fig 3. Hemostasis and closure was achieved with vicryl 3-0 fig 4. Postoperative antibiotics and analgesic was advised followed by steam inhalation and nasal drops. Follow up was taken after 7 days and swelling was reduced with did not have complaints. Specimen was sent for histopathological evaluation fig 5 and Adenomatoid odontogenic tumor was diagnosed.



**Fig 1: Diffused Swelling Involving Right Anterior Maxilla**

### Address for correspondence

**Dr. Mayur Vilas Limbhore**

Department of Oral and Maxillofacial Surgery  
Bharati Vidyapeeth Dental College,  
Katraj, Pune, Maharashtra, India-411030  
Email: dr.mayur.limbhore18@gmail.com  
Contact no: +91-8552887325



**Fig 2: Computed Tomography**



**Fig 2: Computed Tomography**



**Fig 3: Lesion was enucleated**



**Fig 4: Hemostatsis and Closure was Achieved**

## DISCUSSION

Adenomatoid odontogenic tumor is usually associated with impacted teeth. The origin of AOT is controversial, but many authors believe in odontogenic source. AOT has cytological features similar to various components of enamel organ, dental lamina, reduced enamel epithelium, and its remnants (4). On radiographic examination AOT frequently looks like a dentigerous cyst. The lesion is usually radiolucent and unilocular. However, they contain fine calcifications (snowflake), a feature that may be helpful in differentiating an AOT from dentigerous cyst. The unilocular radiolucency is well demarcated with smooth cortical border. Most lesions are pericoronal, juxta coronal, and divergence of roots and displacement of teeth often occurs without root resorption (2-3, 10,11).

1. Dentigerous cyst
2. Calcifying odontogenic cyst
3. Calcifying odontogenic tumor
4. Unicystic ameloblastoma
5. Odontogenic keratocyst

## CONCLUSION

Even though enucleation and curettage for AOT is the most common treatment modality, accurate histological diagnosis is mandatory to avoid unnecessary mutilating surgery. Still the search for accurate classification and ideal nomenclature for AOT continues.

The debate as to whether AOT is an anomalous hamartomatous growth or a true benign neoplasm has not been settled yet (1). Immunohistochemical studies by certain authors reinforce the theory of hamartomatous character of this lesion indicating AOT is not a true neoplastic lesion (12).

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