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Changing trends in the site of occurrence of a Huge Adenomatoid Odontogenic Tumour in Pregnancy

[1]Deon J E, Department of Oral Pathology, School of Dental Science, Piracicaba.

[2]Hregnani K R, Department of Oral Pathology, School of Dental Science, Piracicaba.

[3]Barlos C R, Department of Oral Pathology, School of Dental Science, Piracicaba.

[4]Losqueda T A, Department of Oral Pathology, School of Dental Science, Piracicaba.

Corresponding Author: Hregnani K R, Department of Oral Pathology, School of Dental Science, Piracicaba.

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Abstract

Adenomatoid odontogenic tumor (AOT) is a benign neoplasia of odontogenic origin. It appears mostly in young female patients; the maxillary region being the most affected. Enucleation and curettage are the treatment recommended. We present a case of huge AOT of anterior maxilla in a pregnant patient which was successfully managed.

Keywords: Ameloblastoma, AOT, CT, Radiography

Introduction

Adenomatoid odontogenic tumor (AOT) is a benign neoplasia of odontogenic origin. Here we report successful management of a huge anterior maxillary AOT associated with ectopic teeth in the maxillary sinus, with surgical and histopathological details.

A 30 -year-old female presented with asymmetry of the left anterior face and cheek region and left-sided nasal obstruction. The patient was pregnant and in her 1st trimester. We decided to manage her conservatively as the patient had no pain/infection. The patient was again seen postpartum. The diffused swelling was firm, non-tender, with areas of eggshell crackling, deviated nasal septum to right, obliterated nasolabial fold. Palatal swelling extended from the right maxillary lateral incisor region to the left maxillary second premolar region. Panoramic radiography revealed a relatively large and well-defined radiolucency with multiple radio paquespecks enveloping an unerupted left maxillary canine tooth. Associated findings were unerupted left maxillary premolar closely related to tumor, displacement of left maxillary central incisor, retained tooth. CT scan showed a 50x39mm well defined radiolucency with radiopaque flecks. The mass was seen to extend into the left half of the nasal cavity and

maxillary sinus. The bony margins of the right maxillary antrum were thinned out, the osteomeatal complex was pushed medially and superiorly, and the pterygoid plates were intact. On Aspiration of the cyst, a straw yellow colored fluid was obtained.

Surgical Procedure

Procedure was done under general anesthesia (nasal intubation). Xylocaine with 2% epinephrine was infiltrated to achieve hemostasis. An upper buccal sulcus incision was made from the contralateral canine to the distal of first molar ipsilaterally (Neumann's incision).

A muco-periosteal flap was raised which revealed blooming and thinning of the wall of the vestibular and buccal cortical plates infraorbital Ly till the lateral wall of the nose. Bony window was created (3x2cm) on the anterior wall of maxillary sinus in order to expose the tumor without breaching the cystic lining. Little aspiration was done to facilitate the easy; in toto separation of the cystic lining. The cyst had obliterated the left sinus and had displaced the left first impacted upper premolar. Upon palpation, the tumor was firm, immovable and well circumscribed, and it took up the whole maxillary sinus. On blunt dissection, the specimen separated easily from the surrounding bony wall.

The mass was soft and similar in color to the adjacent mucosa and, complete enucleation of the cyst and maxillary sinus lining was completed. The tooth was found within the tumor. The cystic lining around the impacted tooth along with the tooth was removed. Hemostasis was achieved. After this, the maxillary sinus was subjected to curettage and was cleansed with 0.9% physiological solution and packed with povidone iodine ribbon gauze. Retained primary teeth were extracted. The bony concavity was smooth, with no evidence of erosion. Suturing undertaken with 3-0 polyglycolic acid suture.

Histopathological

Low magnification connective tissue with epithelial cells in the form of ducts & rosettes. High magnification cells spindle & columnar shape with few areas having solid pattern, few showing ductal pattern eosinophilic material. All the aforementioned characteristics were compatible with AOT.

Discussion

AOTs are considered, rather than a neoplasia, a benign, hamartoma Tous epithelial lesion of odontogenic origin.

Females are affected by AOT more frequently than males. Maxilla is the predilection site of occurrence, almost twice as often as the mandible, and the anterior part of the jaw is more frequently involved than the posterior part. An unerupted maxillary canine is the tooth most commonly associated with AOT.

The differential diagnosis of AOT, the follicular type may mimic a dentigerous cyst and the extrafollicular type, a residual or globule-maxillary cyst. Moreover, the peripheral type of AOT may be misdiagnosed as a gingival fibroma, a peripheral odontogenic fibroma, a peripheral cemenifying or a ossifying fibroma.[3] Mixed radiolucent and radiopaque lesions may mimic a calcifying odontogenic cyst, a calcifying epithelial odontogenic tumor, animalistic fibro-odontoma or an odontogenic fibroma.

Non-invasive characteristics and slow growth as well as the presence of a capsule, respond satisfactorily to a conservative treatment consisting on enucleation and curettage. Because of its low tendency to recur, our patient was treated by conservative surgical enucleation associated with the removal of the unerupted dental element.

Conclusion

A of huge maxillary AOT in a 30-year-old pregnant female, which was successfully managed by enucleation and curettage. We are following- up the patient regularly post operatively.

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Legend Figures

Figure 1: Initial radiography

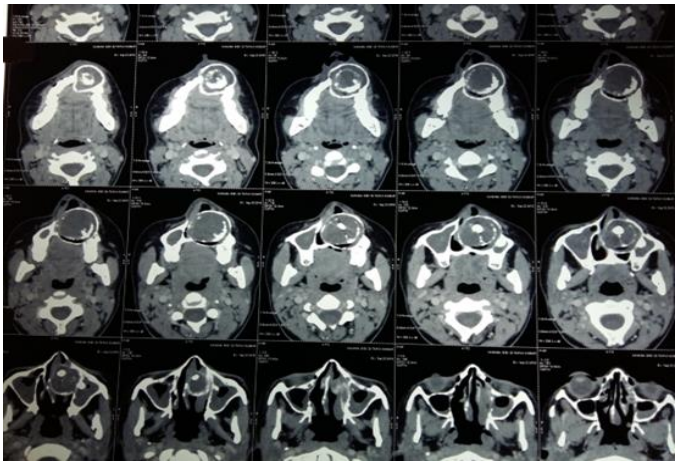


Figure 2: Panoramic radiography

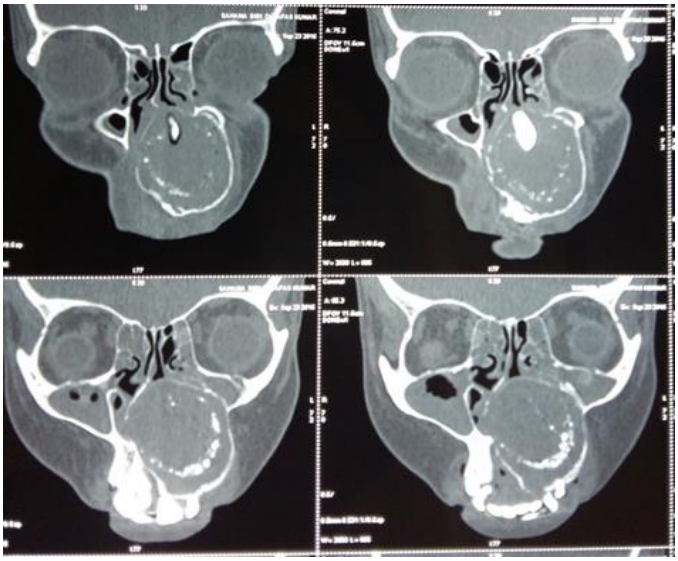
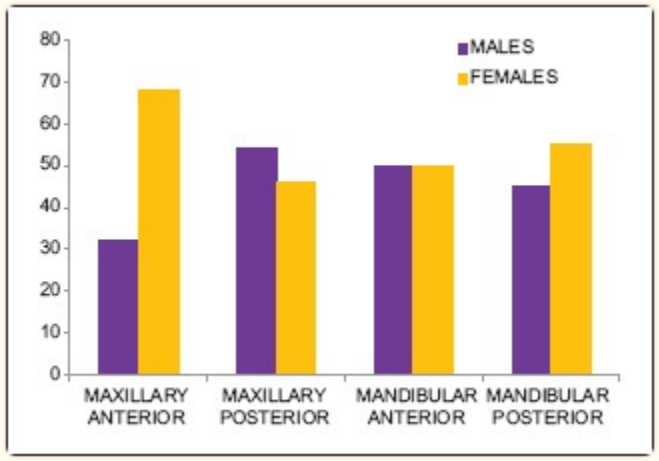


Figure 3: Orthopantomogram and Computed tomography in the patient.



Graph 1: males and females affected by AOT.