



A CASE REPORT OF PLEXIFORM AMELOBLASTOMA IN 11 YEAR OLD CHILD PATIENT

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Article Received on 18/11/2015

Article Revised on 10/12/2015

Article Accepted on 01/01/2016

ABSTRACT

Ameloblastoma is a true benign neoplasm of odontogenic epithelium origin appears more commonly in the mandible as compared to maxilla. After odontomas, ameloblastomas are the second most common odontogenic neoplasm. Ameloblastoma is the common form of locally aggressive benign tumor of the jaws. It more commonly occurs in adults, but it is rare in Childhood. The present article describes a case report of plexiform ameloblastoma in 11 year old child patient.

KEYWORDS: Ameloblastoma, Child patient, Plexiform ameloblastoma.

INTRODUCTION

Ameloblastoma is a benign locally aggressive polymorphic tumor histologically consisting of proliferating odontogenic epithelium. It usually has follicular and plexiform pattern lying in a fibrous stroma.^[1]

Ameloblastomas is the most common form of the aggressive tumor of the jaws. Tumors that involve the jaws are usually benign and stem from odontogenic tissues.^[2]

The most common site for the occurrence is the molar region and ramus of the mandible. In case of maxilla, most common site is also the molar region, but in some cases, it may extend to maxillary sinus, nasal cavity or the base of the skull.^[2]

According to data in the literature, ameloblastoma can occur in all age groups, but the peak incidence is in the third and fourth decades of life and occurrence in childhood is relatively rare.^[2,3]

The present case report is of plexiform ameloblastoma in 11 year old male patient.

CASE REPORT

An 11 year old male patient came with a chief complaint of pain in the lower right posterior region of the jaw. On examination, we found that the 46 was grossly carious and has pain on percussion positive. On further examination, it was observed that swelling was present in

the left side mandibular posterior region since 4 to 5 months. The swelling was extending from 35 to posterior to the second molar region. Swelling was not well defined, hard on palpation and smooth in surface texture. (Fig. 1) Radiographic examination had shown unilocular radiolucent area extending from posterior 35 to ramus region. Patient was advised incisional biopsy and the tissue was sent for the histopathological examination. (Fig. 2)

On histopathology, numerous interlacing follicles of the odontogenic cells was seen distributed in the connective tissue stroma. The follicles had peripheral lining of tall columnar cells with nucleus polarized away from the basement membrane and in palisading appearance, suggestive of the ameloblast-like cells. The central part between the strands of the cells had shown presence of the stellate reticulum-like cells. (Fig. 3) Based on the histopathological picture final diagnosis of the ameloblastoma (Plexiform) was made and the patient was advised for the surgical excision of the tumor.

Figures



Fig. 1: Intraoral photograph of the patient showing swelling present in the left posterior region of the mandible.



Fig. 2: Incisional biopsy specimen.

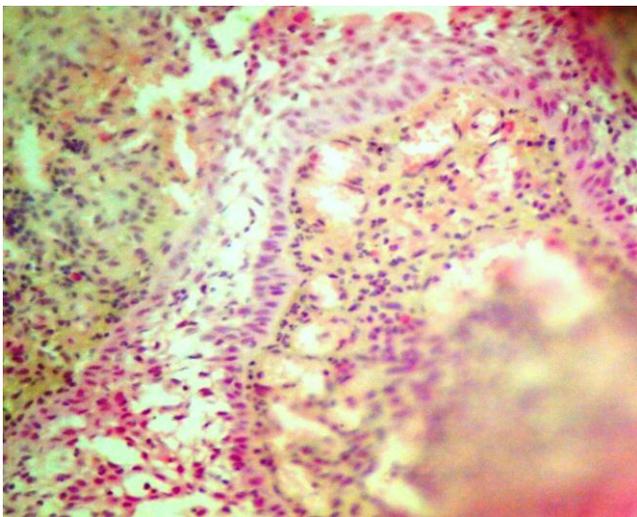


Fig. 3: Histopathological picture of the plexiform ameloblastoma.

DISCUSSION

The term ameloblastoma was given by Churchill in 1933 and the first description of Ameloblastoma was made by Cusack in 1827. Falkson gave the detailed description of this lesion in 1879.^[1,4]

It is locally aggressive odontogenic neoplasm by nature arising from the remnants of the dental lamina and dental organ with patients presenting late in life after the tumor has reached an enormous size leading to facial disfigurement.^[1]

The persistent growth pattern of localized and infiltrative to the maxillofacial region and the ability to produce pronounced deformities are clinical characteristics that contribute to the possible identification of ameloblastomas. The typical ameloblastoma begins as a slowly destructive asymptomatic and intraosseous expansion, being a lesion that tends to expand and infiltrate, rather than perforate the bone. However, the diagnosis can also be suggested through a routine radiographic examination. Unless the tumor becomes infected, it is rarely painful. When these tumors become symptomatic, the patient may experience pain or numbness, swelling, malocclusion, tooth mobility or secondary infection.^[5]

Leon Barnes has categorized ameloblastomas into four types based on their behavioral pattern, anatomical location, histological features and radiographic appearance⁶:

1. Solid (multicystic),
2. Unicystic,
3. Desmoplastic
4. Peripheral varieties.

The six different histopathological variants of ameloblastoma are namely, desmoplastic, granular cell, basal cell, plexiform, follicular, and acanthomatous.⁷ Here we report a case of Plexiform ameloblastoma of mandible. Ameloblastoma is commonly observed as a radiolucent area, seen in three different patterns. Most common is the multilocular form with various cysts that are in groups or separated by osseous reinforced septa known as soap bubble appearance. The second most common type is a beehive pattern. A third radiographic presentation, which is very important in terms of a differential diagnosis, is the unilocular form.^[4]

The term “plexiform refers to the appearance of anastomosing islands of odontogenic epithelium in contrast to a follicular pattern.^[7] Out of all the histologic variants of ameloblastoma, the incidence of plexiform variety is one-third.⁴

The mainstay of treatment is surgery, with wide resection recommended due to the high recurrence rate of solid/multicystic ameloblastomas. The recurrence rate after resection is 13–15%, as opposed to 90–100% after curettage. Many authors recommend a margin of 1.5–2 cm beyond the radiological limit to ensure all microcysts are removed. Several studies suggest treatment as an

important prognostic factor, specifically implicating undertreatment as a cause of recurrence.^[1]

CONCLUSION

The present case report has described a case report of plexiform ameloblastoma occurred in pediatric patient, which is quite rare in incidence. Thus it should be considered in the differential diagnosis whenever such cases are arrived.

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