

Unusual presentation of ossifying fibroma: a case report

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ABSTRACT

Ossifying fibroma is a benign neoplasm which is characterised by replacement of normal bone by fibrous connective tissue and varying amounts of newly formed bone and/or cementum-like material. Despite of the large size of the lesion the occurrence of cortical breach is rare. We present a case of large ossifying fibroma of the maxilla with unusual clinical and radiological presentation in the form of cortical breach and its surgical management.

Key words: benign, maxilla, ossifying fibroma, unusual

Introduction

Ossifying fibroma is a fibroosseous lesion which is characterised by replacement of normal bone by fibrous connective tissue and varying amounts of newly formed bone and/or cementum-like material. It is thought to be originated from periodontal membrane [1]. Some ossifying fibromas contain predominantly cementum like material while some contain mainly bone, but majority of the lesions show both type of tissues in the single lesion [2,3]. The condition is mostly found in the middle aged patients [4-7] with a definite female predilection [4,6,7]. It predominantly affects the craniofacial skeleton and rarely the long bones of body with mandible being more commonly affected than maxilla. The most common site of involvement is in the region of premolars & molars [8]

Case report

A 13 years old female reported to our department with chief complaint of swelling over left side of the face since 2 year, which was growing in size slowly over the timespan. There was no history of trauma, pain, discharge, paraesthesia, vision disturbances, breathing or chewing difficulty or nasal blockade. Extraoral findings included an oval swelling of 5cm diameter

with diffuse border involving the left maxilla and extending from the body of the zygoma to the upper alveolar crest superoinferiorly, and from ala of the nose to the posterior border of masseter anteriorly. The overlying skin was normal. The swelling was non-tender on palpation, hard in consistency, diffuse border, non-compressible and skin over the lesion was not fixed (Fig. 1). Intraoral examination revealed a swelling extending from distal side of lateral incisor to the distal side of first molar; obliterating the left maxillary vestibule. The swelling also extended palatally involving the left half of the hard palate without crossing the midline upto the junction of the soft and hard palate. Overlying mucosa was normal. Palpatory findings were similar to the extra oral examination. None of the teeth were non vital and there was no tooth mobility, tooth migration or paraesthesia was present. Routine blood examination and OPG were advised. Routine blood examination were within normal limit and OPG showed an expansile radiolucent lesion involving the left maxilla of 4 cm diameter with impacted first premolar and resorbed deciduous second molar and displaced second premolar and first molar. After that incisional biopsy and NCCT face were advised. Histopathological findings showed mainly fibroblastic proliferations with few areas showed osteoid like eosinophilic materials focally lined by osteoblasts. Large area of myxoid changes seen with few peripheral mature bony trabeculae suggestive of ossifying fibroma. NCCT face revealed an expansile lesion involving the left maxilla causing thinning of the

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overlying bony wall with break in the cortex at the lateral aspect and the expansion associated with embedded tooth in anterior aspect of the cyst (Fig. 2). Resection of the lesion was planned and procedure was explained to the patient and her father's and written consent was taken. Resection with uninvolved margins under general anaesthesia through vestibular approach was done and surgical site was primarily closed and surgical specimen (Fig 3) lesion was send for biopsy. Post-operative antibiotics and analgesics were given through parenteral route and suture were removed after 1 week and patient was discharged. Patient was followed weekly for first month then monthly for 18 months without any signs of recurrence.

Discussion

In 1927, the term ossifying fibroma was given and in 1968 the cementum containing tumours were grouped together [9]. In 2005 world health organisation categorised ossifying fibroma in the group of bone related lesions [10]. Ossifying fibroma is most commonly found in the middle aged patients. In paediatric and adolescent age group aggressive form is more common. Our case differs in the way that the lesion was non aggressive although the age of the patient is 11 years. Clinically they are painless, slow growing and expansile lesion with cortical expansion often associated with root displacement and root

resorption. Radiographical features include a well-defined radiolucency with smooth and sclerotic border and varying degree of calcification, depending upon stage of development. A significant point is that the outer cortical plate remains intact, especially in those giant tumours, although they may be displaced and thinned [11,12]. Although in our case the clinical presentation was simillier to as described above, however on CT image cortical breach was apparent which was confirmed intraoperatively. Gross specimen shows yellowish colour with encapsulation and give gritty sensation on cutting. Fibrous connective tissue with varying degree of maturation is the most common histological feature. Calcific materials also found which range from scattered foci to dense network of bony trabeculae. According to the Sciubba and Younai [13, 14]enucleation and the curettage of the lesion is the first choice of treatment. For the larger lesions involving maxilla extraoral approach is recommended through Weber Ferguson approach. However in our case, intraoral incision was used for the resection of the lesion keeping in mind the patient's concern regarding aesthetic. The peculiarities of this case is the cortical breach and despite of the large size this lesion was treated by intraoral route without any sign of recurrence and good aesthetic results. The present case adds to the existing knowledge regarding the usual radiographic and intraoperative presentation of the lesion.



Fig 1: Clinical photograph of the patient



Fig 2: NCCT face with 3D reconstruction showing cortical perforation



Fig 3: Excised surgical specimen

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