OSSIFYING FIBROMA IN MAXILLA - A DISTINCT FIBRO-OSSEOUS LESION OF JAW
Deepak Passi, Geeta Singh, Dhirendra Srivastva, Shubha Ranjan Dutta, Sonal Mishra, Sarang Sharma

ABSTRACT
Ossifying fibromas are a benign, relatively slow-growing, central bone tumor of the jaws, especially the mandible, which is composed of fibrous connective tissue within which bone is formed, characterized by fibroblastic and osteoblastic activity in marrow spaces. Ossifying fibroma presents several variant histopathological subtypes. The overlapping clinical and histopathological features of these subtypes have led to diagnostic dilemma and confusion. This paper report the management of an unusual occurrence of large Ossifying fibroma in maxilla by surgical excision with one year follow up.

Key words: Fibroma; Fibro-osseous Lesion; Maxilla; Ossifying Fibroma

Introduction
According to the 1992 World Health Organization (WHO) classification,1 an ossifying fibroma is a ‘demarcated or rarely encapsulated neoplasm consisting of fibrous tissue containing varying amounts of mineralised material resembling bone and/or cementum’.2 Ossifying fibroma is a part of benign fibro-osseous lesions of the jaw that are characterised by replacement of normal bone by fibrous tissue containing a newly formed mineralized product. Other commonly included among the fibro-osseous lesions of the jaw are fibrous dysplasia, focal cemento-osseous dysplasia, periapical cemento-osseous dysplasia and florid cemento-osseous dysplasia.3 Ossifying fibromas often occur in patients in the second to fourth decade of life with a definite female predilection and the mandible is involved far more often than the maxilla, especially the premolar and molar region.4-7 This paper report the management of an unusual occurrence of large Ossifying fibroma in maxilla crossing midline by surgical excision with one year follow up.

Case Report
A 28-year-old female reported to department of oral maxillofacial surgery, King's Georges Medical University, Lucknow, India with chief complaint of swelling over left side of face creating cosmetic and functional problems for the last two years. Medical history was non contributory and there were no hereditary disease among antecedents. Clinically, a large circumscribed, oval shaped swelling was noted over her left cheek and malar region which was firm and non-tender on palpation measuring about 8cm x 7 cm obliterating nasolabial fold and causing definite facial asymmetry. Intra orally, a rounded, smooth-surface, well-circumscribed mass was found on the anterior maxilla from the region of 11 through 24. The mass was extended upto the posterior part of the left hard palate crossing the midline. Computed Tomogram scan shows defined boundaries showing sclerotic margin of radiolucency involving the buccal side of the left maxilla which extends to hard palate, nasal cavity as far as middle nasal conchae, and towards medial part of the left maxillary sinus (Figure 1). Invasive biopsy of the lesion confirmed ossifying Fibroma. Under general anesthesia, access to the lesion was achieved via an intraoral approach and complete excision of the whole tumor was done along with involved teeth followed by application of post surgical splint and good post operative care. Histopathologic examination (Figure 2) of the excised tumor correlates with the diagnosis of ossifying Fibroma.

Discussion
Ossifying fibromas is believed to derive from the multipotential mesenchymal cells of the periodontal ligament which are able to form cementum, bone and fibrous tissue.5-8 However, microscopically identical neoplasms with cementum-like differentiation have also been reported in the orbital, frontal, ethmoid, sphenoid and temporal bones as well as nasopharynx and paranasal sinuses, leaving these prior theories of origin open to question.9-13 Although the precise pathogenesis is still unknown, Wenig et al. has suggested that trauma-induced stimulation may play a role.14 Fibro-osseous lesions of the jaws were initially classified by Waldron15 into three main categories namely, fibrous dysplasia, fibro-osseous (cemental) lesions such as ossifying and cementifying fibroma, and fibro-osseous neoplasms such as juvenile active ossifying fibroma.16 The concept of ‘fibro-osseous lesions’ of bone has evolved over the last several decades and now includes two major entities: fibrous dysplasia and ossifying fibroma, as well as the other less common lesions such as florid osseous dysplasia, periapical osseous dysplasia, focal sclerosing osteomyelitis, proliferative periostitis of Garre, and ostitis deformans.17-19 In recent years, these lesions were reclassified into fibrous dysplasia, reactive (dysplastic) lesions arising in the tooth-bearing area, and fibrous osseous neoplasms such as cementifying and ossifying or cemento-ossifying fibroma.19-21 Uncomplicated cases can be treated by simple enucleation of the lesion with curettage alone. Because the lesions are well circumscribed, they are removed easily from the surrounding tissue. On the other hand, larger lesions will require more radical surgical resection.22 It is also recognized that if there is no facial deformity and no evidence of concomitant osteomyelitis, a ‘wait and watch’ approach is an appropriate treatment choice.9,22 Ossifying fibroma of the jaw is distinct maxillofacial fibro-osseous lesion that should be distinguished from fibrous dysplasia because they show distinct patterns of disease progression.22 However, both lesions often show similar histological and radiological features, making distinction between the two a diagnostic dilemma.24
Conclusion

In conclusion, ossifying fibroma is a distinct entity among the others fibro-osseous lesions of the jaw and clinician should plan a proper surgical treatment in order to eliminate the tumor completely and avoid tumor recurrence along with improving the patient's cosmetic and functional results.

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References


How cite this article


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Source of Support: Nil

Conflict of Interest: None Declared