AN UNUSUAL OCCURRENCE OF OSSIFYING FIBROMA OF LOWER JAW

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ABSTRACT

BACKGROUND

Ossifying fibroma is a type of reactive hyperplasia of oral cavity which occurs due to trauma or chronic irritation. It is more common in third decade and in females. Most common site is anterior maxilla. This is a case of ossifying fibroma in the mandible in a middle-aged male patient. Treatment is surgical excision. Incomplete excision can lead to recurrence.

KEYWORDS

Ossifying Fibroma, Fibroma, Oral Cavity.


BACKGROUND

Reactive hyperplasias of oral mucosa are caused by chronic irritations such as calculus, ill-fitting dentures and overhanging dental restorations. They histologically represent chronic inflammation, granulation tissue and proliferation of endothelial cells and fibroblasts.1 Synonyms of ossicular fibroma are peripheral cementifying fibroma, calcifying or ossifying fibrous epulis, and peripheral fibroma with calcification. It is most commonly seen as gingival growth on interdental papilla and comprises of 9% of all gingival growths. It is more common in females and on the anterior maxilla. Incidence of recurrence is 16-20%. The reasons for recurrence include incomplete removal of lesion, failure to eliminate local irritants, and difficulty in access during surgical manipulation due to intricate location of POF being present usually at interdental areas. Deep excisions have been preferred for recurrences. Other reactive hyperplastic lesions are pyogenic granuloma, peripheral giant cell granuloma and fibrous hyperplasia.2

Case Report

A 50-year-old male patient presented with a history of painless growth in the lower jaw since 2 years. Examination of oral cavity showed 2 x 1.5 cm mass in the gingiva between the lower central incisors which was irregular, firm, non-tender and did not bleed on touch. FNAC of the mass was suggestive of Fibroma. Orthopantomogram was not suggestive of mandibular erosion or involvement of teeth. Growth was excised under local anaesthesia and sent for histopathological examination.

Histopathological examination showed closely packed polyhedral epithelial cells having features of nuclear pleomorphism and giant nuclei. The stroma was highly cellular with proliferating fibroblasts intermingled with fibrillar tissue. Fibrous tissue showed trabeculae of bone and dystrophic calcification. The features were suggestive of ossifying fibroma.
Histopathological Examination 1

Histopathological Examination 2

DISCUSSION
Reactive hyperplasia comprises of a group of fibrous connective tissue lesions that commonly occur in the oral mucosa because of injury or chronic irritation. Chronic inflammation leads to formation of granulation tissue with endothelial cells, macrophages, lymphocytes and later fibroblasts proliferate and manifest as a mass lesion. These lesions are not neoplastic but they indicate a chronic process where an exaggerated repair occurs following inflammation. They are classified into four sub-groups, which are pyogenic granuloma, ossifying fibroma, peripheral giant cell granuloma and fibrous hyperplasia. Fibrous hyperplasia is the most common lesion followed by pyogenic granuloma and ossifying fibroma. Peripheral giant cell adenoma is the least common.²

Menzel first described ossifying fibroma in 1872. The terminology of ossifying fibroma was coined by Montgomery in 1927. It occurs commonly in the craniofacial bone and is classified into two types central and peripheral.³

The central type arises from the endosteum or the periodontal ligament adjacent to the root and expands from the medullary cavity of the bone, and the peripheral type occurs on the soft tissues overlying the alveolar process. Ossifying fibroma is a slow growing nodular mass that is neither pedunculated nor sessile. It is usually located in the gingival papilla between the adjacent teeth.

Ossifying fibroma should be differentiated from traumatic fibroma, peripheral giant cell granuloma, pyogenic granuloma, and peripheral odontogenic fibroma.

Peripheral odontogenic fibroma is an uncommon neoplasm which arises from epithelial rests in the periodontal ligament or the attached gingiva itself. Traumatic fibroma occurs on the buccal mucosa along the bite line. Pyogenic granuloma presents as soft, friable nodule, small in size that bleeds with tendency to haemorrhage and may or may not occasionally or do not show calcifications but tooth displacement and resorption of alveolar bone are not observed. Peripheral giant cell granuloma shows purple or blue discoloration which is not found in ossifying fibroma.²

Ossifying fibroma is more common in the third decade and is more common in females. The male to female ratio is 1:2.7³. 60% of the lesions occur in maxilla with 50% in the incisor canine region.⁴

Araki et al reported a case of ossifying fibroma in the angle of the mandible.⁵

As it is uncommon to find ossifying fibroma in the mandible and among middle aged males, we report this case.

CONCLUSION
Ossifying fibroma should be considered as one of the differential diagnosis of hyperplastic lesion that occurs due to chronic irritation. Surgical excision should be the treatment of choice. Incomplete excision can lead to recurrence.

REFERENCES