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RESEARCH ARTICLE

SOLITARY PERIPHERAL OSTEOMA OF THE MANDIBLE: A CASE REPORT

Dr. Sumalatha M.N¹, Dr. Gadiputi Sreedhar², Dr. Phani Himajadevi Vaaka³ and Dr. Kartheek Gandikota⁴

1. MDS [Professor & Head] Department of Oral Medicine and Radiology Kims Dental College & Hospital Amalapuram.
2. MDS [Professor & Head] Department of Oral Pathology Kims Dental College & Hospital Amalapuram.
3. MDS [Associate Professor] Department of Oral and Maxillofacial Surgery Kims Dental College & Hospital Amalapuram.
4. MDS [Reader] Department of Oral Pathology Kims Dental College & Hospital Amalapuram.

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Abstract

Osteomas are benign, slow growing oestrogenic tumours. They are often occurring in the craniofacial bones but rarely originate from the mandible. Osteomas have three varieties as central, peripheral and extra skeletal. Central and peripheral osteomas are often seen in the facial bones. Peripheral osteoma often located in the frontal, ethmoid and maxillary sinus, but rarely occurs in the jaws. Usually they are asymptomatic and discovered incidentally during radiological and clinical examinations. Osteomas are characterized with well-defined, rounded or oval radiopaque mass in the computed tomography. Herein, we report a rare case of peripheral osteoma of the lower part of the mandible in a 21-year-old male with radiologic and pathologic findings.

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Introduction:-

Osteomas are uncommon, slow-growing, benign osteogenic neoplasm's that arise most frequently in the craniofacial skeleton¹. It may be classified as peripheral, central or extra skeletal. A peripheral osteoma arises from the periosteum, a central osteoma from endosteum and an extra skeletal osteoma in the soft tissue². Histopathologically, osteomas may be of two types; compact and cancellous. Compact osteomas consist of dense, compact bone with a few marrow spaces, while cancellous osteoma is characterized by bony trabeculae and a fibro fatty marrow enclosing osteoblasts which resembles mature bone³.

Most of the cases of peripheral osteoma appear to have a very slow growth rate, are asymptomatic and produce swelling and asymmetry⁴. The pathogenesis of the peripheral osteoma is unclear. It has been considered to be a true neoplasm, developmental anomaly, or a reactive lesion triggered by trauma, muscle traction, or an infection¹.

The most common location of the peripheral osteoma is the skull. However, lesions do seldom occur in the mandible, especially on the lingual aspect, inferior border and body of the mandible and at the angle region^{2,3}.

There is no predilection for age or sex and it may affect young adults. Radio graphically, appears a well circumscribed radiopaque mass that appear round/ ovoid in shape¹.

Corresponding Author:- Dr. Sumalatha M.N

Address:- MDS [Professor & Head] Department of Oral Medicine and Radiology Kims Dental College & Hospital Amalapuram.

The present case report describes the clinical, radiological and histopathological features of a patient with a compact osteoma located in the posterior mandible.

Case Report:

A 21 year old male patient reported to the department of oral medicine and radiology with the chief complaint of swelling in the mandibular left posterior region since 1 month. Swelling was gradual in onset, progressive in nature, associated with mild pain. No significant past medical and dental history. On intra oral examination, a diffuse swelling is present in the buccal vestibule in relation to 34 and 35. Swelling is single, irregular, measuring approximately 1x2 cms in diameter and mucosa over the swelling appears normal. On palpation, swelling is tender, soft and non fluctuant. (Fig: 1)

An intra oral periapical radiograph shows a well defined radiopacity surrounded by radiolucency in the interdental area between 34 and 35. (Fig: 2)

Under local anaesthesia, the tissue is excised and sends for histopathological evaluation, which confirmed compact osteoma. (Fig: 3)



Fig: 1



Fig: 2

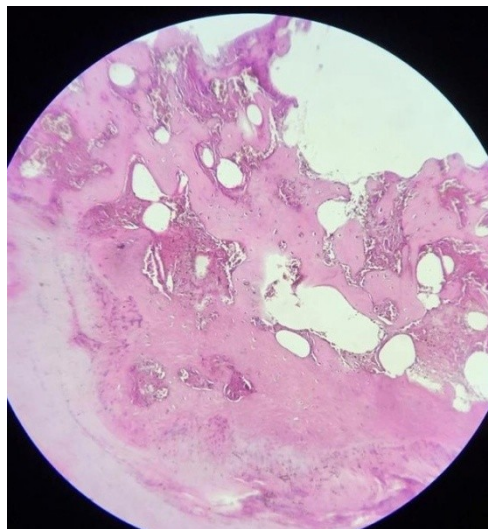


Fig: 3

Discussion:-

Osteoma is defined by WHO [world health organization] as a benign lesion consisting of well differentiated mature bone tissue with a predominantly laminar structure and showing very slow growth. It is not clear whether osteomas are benign neoplasm's or hamartomas¹.

Trauma and infections are considered to trigger excessive bone activity. However, present case did not have any history of trauma or infection. Osteomas can occur at any age. However, they commonly diagnosed in the 3rd and 5th decades of life and seen more frequent in males than in females⁶. The present case was also a male patient in the second decade of his life.

Clinically majority of the osteomas are symptomatic and diagnosed on routine radiographic examination. But in our case, patient complains of swelling with mild pain in the mandibular posterior region of jaw on left side.

The differential diagnosis of osteomas includes exostoses, peripheral ossified fibroma, periosteal osteoblastoma and focal sclerosing osteomyelitis⁵.

Histologically, compact osteomas are made of normal dense bone with minimal bone marrow tissue. The cancellous osteomas are made of trabecular bone and fatty bone marrow. There is marked osteoblastic activity⁶. The histopathological findings in the present case were consistent with those in compact type. Removal of asymptomatic osteomas is not generally necessary.

Osteomas are slow-growing benign tumors with rare recurrence rate, and malignant transformation is very unusual. Surgical intervention is indicated only if it becomes large enough to cause facial asymmetry and functional impairment⁷.

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