

PERIPHERAL OSTEOMA OF THE SYMPHYSIS MENTI PART OF MANDIBLE: A CASE REPORT

Authors - Chandra Bhan (1), Aniket Abhijeet Durgi (2) Mohammad Sajjad Zahir (2)

Authors Affiliation- (1) Assistant Professor, (2) Junior Resident, Department of Otorhinolaryngology, MRA medical college Ambedkar Nagar- 224190, Uttar Pradesh, India

ABSTRACT

INTRODUCTION

Osteoma is a benign tumor of mature bone, most commonly occurring as a peripheral lesion. Its etiology is unclear and may be developmental, neoplastic, or reactive.

METHODS

Clinical, radiographic, and histological features of osteoma were reviewed. Radiographs typically show a well-defined radiopaque mass attached to cortical bone, while histology reveals compact or cancellous variants.

RESULTS

Osteomas are slow-growing and usually asymptomatic, presenting as facial asymmetry. Differential diagnoses include ossifying fibroma, osteoid osteoma, and osteosarcoma. Surgical excision is the treatment of choice, with rare recurrence and no malignant transformation. Multiple lesions may indicate Gardner syndrome.

DISCUSSION

Jaw osteomas are rare but have an excellent prognosis. Treatment depends on cosmetic or functional concerns, and complete removal prevents recurrence. Evaluation for associated syndromes is essential in multiple cases.

KEYWORDS

Peripheral osteoma, Symphysis menti, Mandible

Benign bone tumor

INTRODUCTION

Osteoma is a benign lesion characterized by the proliferation of cancellous and/or cortical bone. It can be peripheral, central, or extra skeletal. The aetiology is not well known, and osteomas of the jaw are relatively rare, prevalence of 0.01–0.04% of the population according to the National Institute of health (NIH).

CASE PRESENTATION

A 30-year-old female patient, resident of Ambedkar Nagar, UP without any significant medical history presented with a painless, bony hard swelling located at inferior surface of symphysis Menti for 15 years duration. There was no paraesthesia associated with swelling. The examination showed the swelling was approximately 5cm x 4.5cm (figure 1). The lesion was immobile and hard in consistency. The three-dimensional imaging (CBCT – Cone beam computed tomography) has aided to shed light on the structure of lesion, and revealed bony growth of size 3.48cm x 2.4cm attached to symphysis Menti of mandible (figure 2 A, B). Patient was admitted and planned for surgical removal of osteoma. Under a strict aseptic condition, B/L Mental block given and surrounding area is infiltrated with xylocaine 2% with Adrenaline 1:200000. Horizontal incision was made on inferior surface of growth. Soft tissue and periosteum retracted and the bony mass was exposed (figure 3). The lesion from its

attachment was removed completely using cutting burr under saline irrigation (figure 4) and rough bony surface was smoothened by diamond burr at attachment site. After a saline and betadine wash, the site was sutured in 3 layers. The resected bony mass was sent to the pathology laboratory for histopathological analysis which shows lamellar bone & Fibrovascular bundles (figure 5).



Figure1: preoperative image of swelling



Figure2A: 3D reconstruction image of bony growth

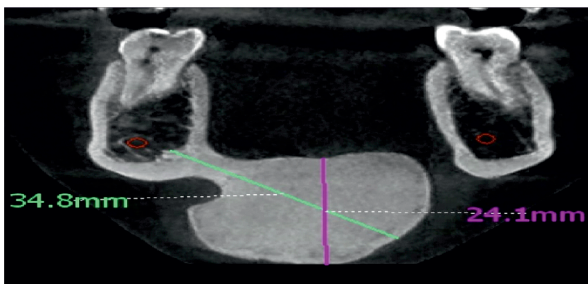


Figure2B: coronal section showing radio-opaque lesion of 34.8mmx24.1mm

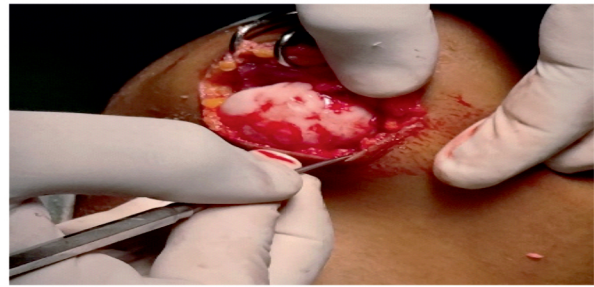


Figure3: intraoperative exposure of lesion



Figure 4: excised bony lesion

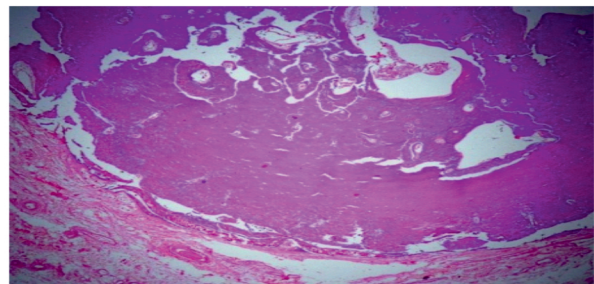


Figure 5: HPE showing lamellar bone and fibrovascular bundles

DISCUSSION

An osteoma is a benign osteogenic neoplasm composed of well differentiated mature bone tissue. Osteomas can be Peripheral, Central and Extra skeletal [1]. Peripheral osteomas are the most common. The pathogenesis of osteoma is not completely unknown. They are referred to developmental anomalies, true neoplasm, reactive lesion triggered by trauma, muscle traction or infection infiltration [2]. Radiographically the presence of an oval, radiopaque well circumscribed mass attached by a broad base or pedicle [1,3] to the affected

cortical bone is a hallmark of peripheral osteoma. Histologically, Osteomas have two distinct variants [1] - The compact osteoma or ivory osteoma and the cancellous osteoma. The differential diagnosis includes Peripheral ossifying fibroma, Dense bone islands, osteoid osteoma, Periosteal osteoblastoma, Osteosarcoma, Idiopathic osteosclerosis. Treatment of osteoma consist of complete surgical removal from the base where it unites with the cortical bone is preferred. Recurrences are rare and there are no reports of osteoma undergoing malignant transformation. Multiple osteomas of the jaws are frequently associated with Gardener syndrome (autosomal dominant disease). In case of multiple lesions, other signs associated with this syndrome i.e. digestive polyp, exostosis of the skull, cutaneous tumours, and supernumerary teeth, should be investigated.

CONCLUSION

Osteomas of jaw bones are rare. They are slow growing, clinically silent and usually manifest only as a focal asymmetry or disfigurement. Indications for surgery are based on degree of disfigurement and functional impairment. Complete surgical removal from the base is mandatory to avoid future recurrence.

Authors Declarations

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Consent to Participate: Obtained

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Corresponding author

Dr Chandra Bhan

Assistant Professor, Department of
Otorhinolaryngology,
MRA medical college Ambedkar Nagar- 224190,
Uttar Pradesh, India
Mobile No.: 9792671657
chandrabhanmsent@gmail.com
ORCID ID: <https://orcid.org/0000-0002-7192-4302>

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