

## Case report

**Recurrent osteoma of the mandible: A rare case report**Sahana Maben<sup>1</sup>, Urvashi A. Shetty<sup>2</sup>, Lekshmi Pradeep<sup>2</sup>, Audrey D'Cruz<sup>1</sup><sup>1</sup>Department of Public Health Dentistry, <sup>2</sup>Department of Oral & Maxillofacial Pathology and Microbiology, Nitte (Deemed to be University), AB Shetty Memorial Institute of Dental Sciences, Deralakatte, Mangalore 575018, Karnataka, India

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**ABSTRACT**

Osteomas are well-defined osteogenic benign and slow-growing lesions pervaded by proliferation of mature cancellous or compact bone. Osteomas are often undetected until the patient experiences facial disfigurement with functional difficulty and pain. We present a case report of Recurrent osteoma seen in the mandibular jaw bone of a female patient, treated by surgical excision successfully.

**Keywords:** Osteoma; Mandible; Odontogenic; Osteoclasts.

**INTRODUCTION**

Osteomas are osteogenic benign lesions consisting of dense compact or cancellous mature bone with constant growth (1). Osteomas are commonly associated with the craniofacial bones, such as the ethmoid, frontal and maxillary sinus, compared with other skeletal sites (2). There are three varieties of osteomas- extra skeletal, peripheral, and central. The genesis of the central osteoma variant is from the endosteum, whereas the peripheral variant arises from the periosteum. The extra skeletal variant has a muscular origin (3). There has not been a definite conclusion regarding the pathogenesis of osteomas. However, few reports have suggested an association between trauma and infection (4,5). Clinically, the lesion may present as a symptomatic slow-growing mass and histopathologically, we can identify three categories of osteoma: like the compact or ivory type, cancellous or trabecular type, and fibrous or spongy type (1). Recurrence rate of osteoma is very minimal. Here, we present a rare case of recurrent peripheral osteoma seen in the lingual aspect of the mandibular bone of a female patient aged 45 years.

**Case report**

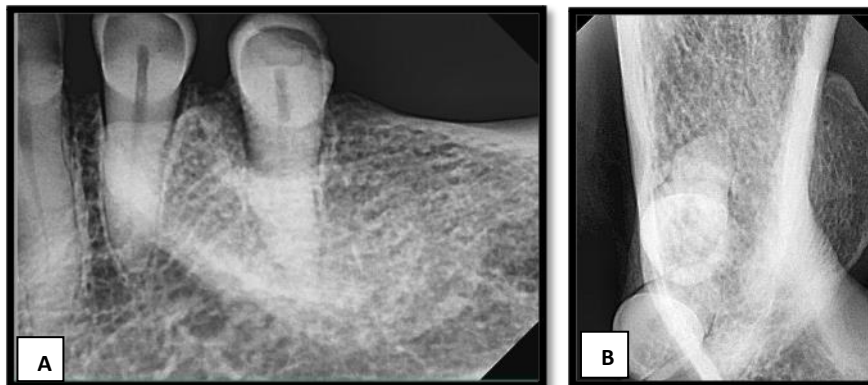
A 45-year-old female was referred by a dental Surgeon to a private dental college in Mangalore, Karnataka, India, with the chief complaint of symptomatic growth on her left mandibular body region on the lingual aspect, which was present for 4 to 5 years. The patient gave a history of similar growth in the same area 20 years ago, for which she had undergone surgical resection with the final histological diagnosis of osteoma being considered in another institution. The patient's past medical and family history could have been more uneventful. The patient had an adverse history of harmful habits. Intraoral examination revealed a bony hard solitary swelling at the mandibular body's lingual surface

covering the mandibular first and second premolars (Fig. 1). The patient was advised for an occlusal radiograph and intraoral periapical (IOPA). The radiograph showed a well-defined radiopaque lesion from the cortex at the lingual aspect of 34 and 35 regions (Fig. 2a). The marrow space and trabeculae are seen. Widening of the periodontal ligament space was observed at the cervical third of 35 (Fig. 2b). Total surgical resection of the lesion was done and was submitted for histopathological evaluation.

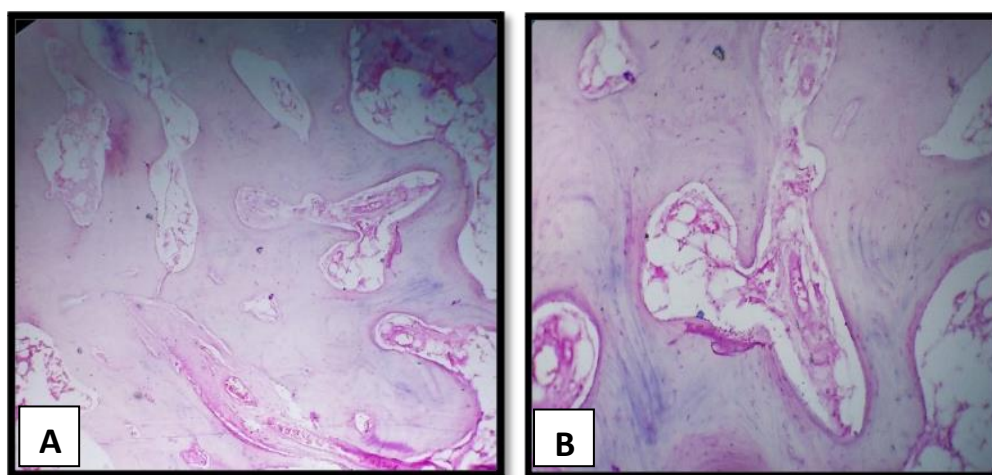


**Fig. 1:** Image showing the overgrowth on lingual surface of the mandibular body covering the mandibular first and second premolars.

Histopathological examination revealed dense compact bone in a trabecular pattern with sparse bone marrow tissue (Fig. 3a and 3b). Osteoblastic rimming was seen in a few areas along with very few osteoclasts. Reversal lines were noted and were prominent in several areas. Bone marrow tissue comprises minimal inflammatory cells chiefly lymphocytes. Blood vessels and extravasated RBCs were also noted in the submitted sections. An impression of osteoma was given. The patient is undergoing regular clinical follow-up. The site has healed well with no complications.



**Fig. 2:** Radiograph showing a well-defined radiopaque lesion arising from the cortex at the lingual aspect of 34 and 35 region (A) and widening of the periodontal ligament space was observed at the cervical third of 35 (B).



**Fig. 3:** Histopathological examination revealed dense compact bone in a trabecular pattern with sparse bone marrow tissue in 10X magnification (A) and 40X magnification (B).

## DISCUSSION

Osteomas are benign, well-defined osteogenic lesions growing slowly and usually composed of proliferative mature compact or cancellous bone tissue (4). Osteomas are often undetected until the patient experiences pain, facial disfigurement, and functional difficulty. Among the three varieties of osteomas, peripheral osteomas are standard on the frontal, ethmoidal, and maxillary sinuses but very rarely on the jawbones (2,3). Clinically, the lesions are well-defined and unilaterally involved, with slow and persistent growth. Radiographically, peripheral osteomas are seen as a well-defined radiopaque mass growing on a stalk at the cortex or on a broad base (6). Histologically, peripheral osteomas have minimal bone marrow tissue along with normal dense bone with marked osteoblastic activity.

The etiology of osteoma is still undetermined. Some investigators classify the osteomas as true neoplasms whereas few others classified it as a reactive condition against any trauma or as developmental anomalies (7,1). The most characteristic feature along with the pattern which signifies the neoplastic nature and distinguishes these lesions from other exostoses is the continuation of growth after adulthood (3). According

to the available literature, the lesion rarely shows recurrence with no malignant transformation (8). However, our patient presented with clinical recurrence following surgical excision 20 years. Regarding differential diagnosis, lesions such as peripheral ossifying fibroma, exostoses, osteoblastoma should be distinguished from osteoma. Histologically, osteoma was distinguished by formation of compact bone along with proliferative fibrous components which are devoid or scanty (1, 2).

Osteomas accompanying Gardner's syndrome were characterized by multiple supernumerary teeth, cutaneous sebaceous cysts and colorectal polyposis, (9). However, in our patient, no corroborating syndromic features were found. It is recommended to do radiographic follow-up for 2-3 years on a 6-month schedule, with two additional annual radiographs after that. (10).

## CONCLUSION

Peripheral osteomas seen in the mandible as radiopaque, benign lesions are very rare. They are known to be completely cured by surgery. However, contrary to this very rarely recurrences seem to occur. Other hyperplastic and neoplastic lesions should be ruled out along with Gardner's syndrome.

## **CONFLICT OF INTEREST**

The authors declare no conflicts of interest.

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