

Peripheral Osteoma On The Lingual Surface Of Mandible : A Case Report

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ABSTRACT:

Osteoma of the mandible are reported to be uncommon in literature. They generally are asymptomatic, and discovered on routine clinical examination. However, with gradual increase in size they may cause ulceration of the overlying mucosa and cause difficulty in fabrication of the prosthesis. Surgical intervention for management of these entities is an option which is reserved for symptomatic cases.

KEYWORDS: osteoma, swelling, mandible

INTRODUCTION:

Osteoma is a benign tumor which consists of well differentiated compact or cancellous bone that increases in size gradually.¹⁻⁹ Osteomas of the jaw can occur on the surface of the bone in the peripheral type, within the medullary bone in the endosteal type (central) or within the muscle in the extraskeletal type.^{1,4,6} The most common site for peripheral osteomas are frontal bone, ethmoid bone and maxillary sinus. Though peripheral osteomas in the mandible are reported to occur rarely, condyle, angle and the lower border of the mandible are the frequent sites with lingual aspect of the mandible showing the greatest predilection.⁴ A thorough case history and pertaining clinical observations can help differentiate a peripheral osteoma from an exostosis. However, no histological differences exists between the two pathologies. Exostosis are associated with history of trauma, generally occur on the palatal surface, is well circumscribed and symmetrical. Osteomas generally remain asymptomatic but with slow progressive growth, can cause ulceration over the thin overlying mucosa posing problems in fabrication of the prosthesis. On radiographic examination, they generally appear radiopaque with well defined margins.⁴

The purpose of this article is to report a case of peripheral osteoma on the lingual surface of the right mandibular molar region which though was asymptomatic but was causing hindrance in the fabrication of prosthesis in a 70 year old male patient thus requiring surgical intervention.

CASE REPORT:

A 70-year-old male patient with the chief complaint of a painless hard swelling of the lower right inner side of the jaw, reported to the department of Oral and Maxillofacial Surgery, PDM Dental College and Hospital, Haryana, with the associated problem of denture fabrication. The swelling gradually increased in size and reached the present size at the time he reported to the hospital and was causing problems in impression making and denture fabrication limiting the extension of the flange.

On intraoral examination, a solitary, well defined swelling in the lower right lingual surface of the mandible measuring (15 x 10 x 5) mm approximately in size, which had gradually increased in size over the past seven years, extending from the mesial aspect of the lower 2nd molar to the distal aspect of 3rd molar (Fig 1) was observed. The overlying lingual mucosa appeared stretched, blanched and thinned. The right lower bicuspid and the 1st molar were missing for which the patient desired a prosthetic rehabilitation with removable partial denture. The swelling was nontender and bony hard in consistency with smooth and well defined borders and was fixed to the lingual cortical plate.

The patient was advised for an orthopantomogram which depicted an oval radio-opacity extending on the right lingual surface of the mandible in the region of 47 and 48. A differential diagnosis mandibular tori, mandibular exostosis or osteoma was made. Decision was taken to surgically excise the lesion in lieu of the patient's concern for continuous growth and hindrance in fabrication of the prosthesis. A preprosthetic surgery for excision of the lesion was planned under local anesthesia. A crevicular incision on the lingual side from the mesial aspect of 43 to the distal aspect of 48 was made to reflect a broad mucoperiosteal flap to expose the lesion, taking care not to perforate the thin lingual mucosa. The lesion was resected at the base with the help of a surgical saw, and the excised bony specimen measuring (15 x 10 x 5) mm in all dimensions was sent for excisional biopsy (Fig 2 and Fig 3). The sharp margins at the lingual cortex were rounded off using round bur and primary closure was done using 3-0 vicryl suture. The lesion was finally diagnosed as a peripheral osteoma as per the biopsy report.



Fig 1: Bony growth on the right lingual surface in the region of 46



Fig 2: Exposure of the bony hard lesion after raising full thickness mucoperiosteal flap



Fig 3: Excised hard tissue lesion

DISCUSSION:

Osteoma is a slow growing osteogenic benign tumor which is composed of well-differentiated mature bony tissue. These tumors mainly affect the craniofacial bone where involvement of the jaw bones is quite rare. The most common type of osteoma occurring in the jaws is the peripheral osteoma which is more common in mandible than in maxilla. Peripheral osteoma are most commonly found in the lingual aspect of the premolars, the inferior border of the condyle and the inferiolateral portion of the angle of mandible. The male population is more affected than the females. Osteomas may be solitary or multiple.¹ The etiology of osteoma is unknown but it can be a developmental anomaly or a reactive response to infection, trauma or muscle traction. Due to the slow growing nature of osteoma, it is not symptomatic in the initial stages, however, it becomes symptomatic when the swelling is evidently prominent and hard on palpation.³ The location, size and direction of growth are the predictors of the clinical signs, symptoms and complications of lesion. Osteomas contribute to about 12.1% of benign bone tumors with an incidence of 0.01 to 0.04%.¹

In a study by Raghupathy et al¹, the authors reviewed the incidences of osteoma at different sites of mandible from studies conducted by various authors till the year 2013. Out of 87 cases 41.3% were located in the body of the mandible, 21.83 % were reported from the condyle, 16.09 % from area of the angle, 11% in the ascending ramus, 8% from the coronoid process and 2.2% in the region of the sigmoid notch¹

In a case reported by Chung et al², the patient reported with bony mass of left angle of the mandible which cause asthetic concern and was surgically removed with the pathological diagnosis of osteofacial asymmetry which was later diagnosed as peripheral osteoma of the left angle of mandible.²

Transformation of osteomas into malignancy has not been reported in the literature and the chance of recurrence is very rare.⁴

Osteomas that are solitary, small and asymptomatic can be observed with periodic clinical and radiological examination whereas the ones which are large, deforming, progressive or other associated symptoms, should be managed by surgical intervention either through oral or cutaneous approach.⁴

CONCLUSION:

Osteoma is defined as a benign, progressively enlarging neoplasm of bone, originating from osteogenic tissue, which is closely associated with the skeleton. Surgical excision is the main treatment choice which requires appropriate follow up to rectify the further recurrence of the growth.

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