OSTEOMA:
A RARE CASE REPORT

ABSTRACT

Osteomas are rare, benign, slow growing tumorscharacterised by the proliferation of compact or cancellous bone. It accounts for 3% of primary bone tumors, and about 10% of benign tumors. About 80% of osteoid osteoma occurs in long bones, while less than 1% occur in Jaw. The mandible is more commonly affected than the maxilla, with the site predilection being the lingual aspect of the body, the angle and the inferior border of the mandible. In this paper we present anosteoma located in the lingual surface of the right mandible in a 44 year old woman and which was surgically excised.

Key words: Peripheral osteoma, Hard swelling, Mandible.

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Introduction

Osteoma was described as a distinct clinical entity by Jaffe in 1935. Jaffe defined osteoid osteoma as 'sui genris'denoting small, self-limiting tumor. Lichtenstein defined osteoid osteoma as a small, oval or roundish tumor like nidus which is composed of osteoid & trabeculae of newly formed bone deposited within a substratum of highly vascularised osteogenic connective tissue.[1,2]

Green et al reviewed the literature and reported the total number of cases of osteoid osteoma of the Jaw to be seven, of these four have occurred in the mandible & three in maxilla.[1]

The pathogenesis of osteoma is not completely known. They are referred to as developmental anomalies, true neoplasms, or reactive lesions triggered by trauma, muscle traction, or infection.[3-6] It has been reported that osteomas can occur at any age and has equal gender distribution.[4,7]Children are almost never affected unless they have Gardner's syndrome(GS). This syndrome is an autosomal dominant disease characterized by gastrointestinal polyps, multiple osteomas, skin and soft tissue tumors, and multiple impacted or supernumerary teeth. Intestinal polyps are predominantly adenomas and may progress to malignancy in almost 100% of patients.[8,9] Since, osteomas may be seen in the earlier stage of GS, the dentists may play an important role in the diagnosis of colonic polyposis.[8,9]

Case report

A 44 year old female patient reported to the department of Oral and Maxillofacial Surgery at ESI Hospital, Ernakulum, Kerala, India, with a complaint of bony hard swelling in lingual aspect of right mandibular body region. Over the previous 5 years, the lesion had progressed gradually from a pea nut size to a 2x2cms hard, globular, well-circumscribed swelling. She gave no history of facial trauma. Her medical, family and social history were unremarkable. Clinical examination revealed no facial asymmetry. The regional lymphnodes were not palpable. An Intra oral examination revealed a sessile well defined bony hard non tender mass in lingual aspect of right body of mandible extending from canine to first molar measuring 2x2 cms. The overlying mucosa was normal in color and texture. (Image 1) No similar bony hard swellings were found anywhere else in the body. All the biochemical and haematological investigations were with in normal limits.

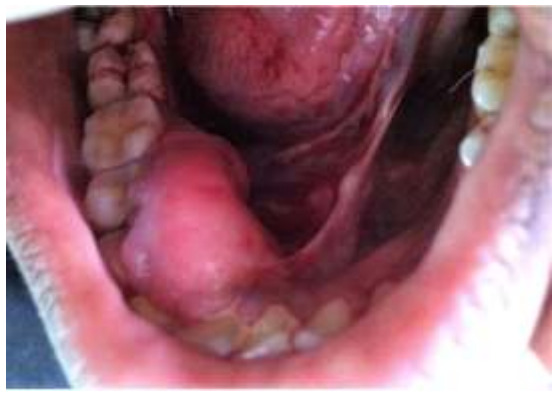

IMAGE 1

The lesion was surgically excised under local anaesthesia. Mucoperiosteal flap was reflected following a crevicular incision, exposing the mass attached to the mandibular body (Image 2). The bony mass was completely removed using bone cutting burs, chisel and mallet followed by curettage of the cavity (Im-

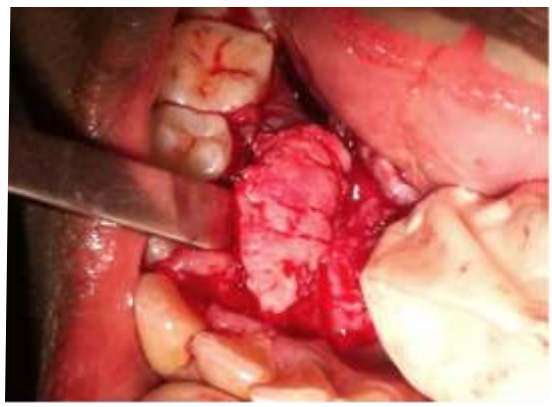

IMAGE 2

IMAGE 3

age 3). The cortical plate of the body of the mandible was smoothened with a vulcanite bur under copious saline irrigation and wound was closed. (Image 4). The surgical specimen was submitted for histopathological examination. Postoperatively, the patient received systemic antibiotics, analgesics, and mouthwash for 7 days. There were no postoperative complications. On followup healing of the wound was satisfactory.

Histopathological examination revealed well circumscribed unencapsulated, normal appearing cortical as well as prominent cancellous bone interspersed with collagen fibers, fibroblasts and few inflammatory cells suggestive of Osteoma.

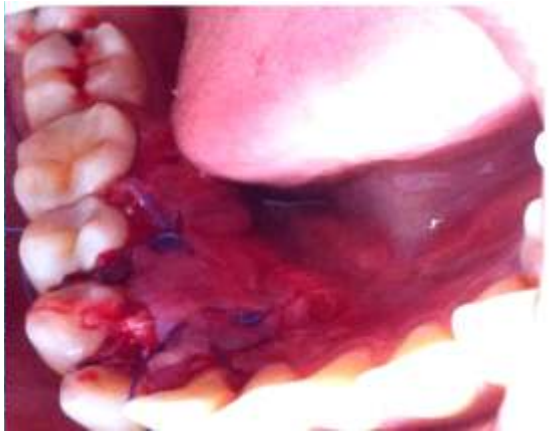

IMAGE 4

Discussion

Osteomas are benign, osteogenic lesions that may arise from proliferation of cancellous (trabeculae), compact bone (dense lamellae) or can be composed by a combination of both.[1] There are three different types of osteomas: central, peripheral and extra-skeletal. The central osteoma arises from the endosteum, the peripheral osteoma from the periosteum and the extra-skeletal soft tissue osteoma usually develops within the muscle.[1] In the facial bones, both central and peripheral osteomas have been described. Peripheral type of osteoma is most common in the lower Jaw, which occurs at the surface of the cortical bone and is sessile or pedicled.[1] Most of the osteomas occurring in the mandible are dense osteomas and the cancellous osteoma is comparatively rare.[1]

The exact etiology and pathogenesis of peripheral osteoma is unknown. Neoplastic and reactive causes have been suggested as possible etiologic factors. Kaplan et al.[4,5] and Woldenberg et al.[10] suggested that some peripheral osteomas may be reactive rather than neoplasms. Histologically osteoma consists of mature, lamellar bone or cancellous bone with abundant fibrofatty marrow between bony trabeculae. Histologically there is no evidence of differentiation between osteoma, osteochandroma, and tori it can only be differentiated clinically.

Panoramic radiography or computed tomography are used for imaging of osteomas of jaw; however, CT is the best imaging modality for determining the location and real extension of the lesion.[7,10] Peripheral osteomas, in most cases, are easy to recognize because of their classic radiographic findings. On radiological imaging, a peripheral osteoma of the mandible is a classically well-circumscribed, round or oval, mushroom-like radiopaque mass with distinct borders.[6,7] The lesion may be sessile and attached to the cortical plates with a broad base. If a peripheral osteoma is pedunculated, a narrow contact area can be seen between the lesion and the compact bone.

Removal of an asymptomatic peripheral osteoma is not generally necessary. Surgical intervention is indicated only if it becomes large enough to cause facial

asymmetry and functional impairment.[3,7,10] Surgical excision is usually simple in pedinculated peripheral osteomas. In the case of mandibular peripheral osteomas, an intraoral approach is preferable over an extraoral approach mainly for cosmetic reasons, as in our case.

Conclusion

We have presented a case of solitary peripheral osteoma on the lingual surface of the mandibular body which was surgically excised and histologically examined. Recurrence of peripheral osteoma after surgical excision is extremely rare. However, it is appropriate to provide both periodic clinical and radiographic followup after surgical excision of aosteoma.

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