ISSN: 2581-5989
PubMed - National Library of Medicine - ID: 101738774

International Journal of Dental Science and Innovative Research (IJDSIR)

IJDSIR : Dental Publication Service

Available Online at: www.ijdsir.com

Volume – 4, Issue – 2, April - 2021, Page No. : 36 - 39

Compact osteoma of mandible - A case report

[1]Dr Sumit Chopra, MDS, Prof and head, Dept. of oral surgery Himachal Institute of Dental Sciences

[2]Dr Nikita Suri, MDS, Senior Lecturer, Dept of oral surgery, Bhojia Dental College and Hospital

[3]Dr Kuldip Kaur, BDS, Dept of oral surgery, Bhojia Dental College and Hospital

[4]Dr Chanchalpreet Singh Kahlon, BDS, Dept of oral surgery, Bhojia Dental College and Hospital

Corresponding Author: Dr Nikita Suri, MDS, Senior Lecturer, Dept of oral surgery, Bhojia Dental College and Hospital

Citation of this Article: Dr Sumit Chopra, Dr Nikita Suri, Dr Kuldip Kaur, Dr Chanchalpreet Singh Kahlon, "Compact osteoma of mandible - A case report", IJDSIR- April - 2021, Vol. – 4, Issue - 2, P. No. 36 – 39.

Copyright: © 2021, Dr Nikita Suri, et al. This is an open access journal and article distributed under the terms of the creative commons attribution noncommercial License. Which allows others to remix, tweak, and build upon the work non commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

Type of Publication: Case Report

Conflicts of Interest: Nil

Abstract

Osteoma is a benign osteogenic neoplasm, consists proliferation of cancellous or compact bone. Peripheral osteomas arise from the periosteum and are quite uncommon in the jaw bones. Peripheral osteoma of mandible is considered as rare entity and very few cases have been reported in the literature. The pathogenesis of osteoma is unclear. Some investigators consider it a true neoplasm, while others believe it as a developmental anomaly, a reactive mechanism due to trauma or infection.[1] We are presenting a case of peripheral compact osteoma in a 25- year old man located on left lingual side of mandible.

Introduction

An osteoma is a benign tumor characterized by proliferation of compact or cancellous bone. It can be classified as peripheral, central or extra skeletal. The exact osteoma is poorly understood. They are thought to be developmental anomalies, true neoplasm or reactive lesions triggered by trauma, muscle traction or infection. Osteomas are mainly found in the craniofacial bones. Paranasal sinuses are most common location for peripheral osteoma. Other sites include the orbital wall, temporal bone, pterygoid processes and external ear canal. The most common sites affected in the mandible are the posterior body, condyle, angle, ascending ramus, coronoid process, anterior body and sigmoid notch. Mandible is more commonly affected as compared to maxilla. Although multiple osteomas of the jaws are a hallmark of Gardner's syndrome (familial adenomatous polyposis) non-syndromic cases are typically solitary.[2]

Case-Report

A 25-year old man came to the outpatient department of Himachal Institute of Dental Sciences, Paonta Sahib with chief complaint of swelling in left side of lower jaw in relation to posterior teeth since 4 years. The patient gave history of swelling which was noticed 4 years back but there was gradual increase in size since 1 year. There was no history of pain, discharge and any difficulty while speaking and swallowing food. There was no history of

trauma. The patient was apparently in good health condition. On extra-oral examination, there was no facial asymmetry. On intra-oral examination, diffuse swelling was present on lingual side of left mandible in the region between 35 and 38 which was non tender and hard in consistency. The swelling was non compressible, non-fluctuant, non-pulsatile. The oral mucous membrane was intact.

Investigation

The patient was advised for CT-Scan of face along with 3D reconstruction for further investigation. CT scan in coronal section revealed a well circumscribed radioopaque mass on the lingual left side of mandible in the region of 35 and 38 respectively with no bony expansion. Differential diagnosis of the lesion was osteoma and osteochondroma.

Treatment

Surgical excision of the lesion present on the left lingual side of mandible between 35 and 38 region done under local anaesthesia. A crevicular incision was given and reflection of mucosa was done. With the help of chisel and mallet, bony mass was removed. Filing of bone was done with bone file after copious irrigation with saline. Closure was done with 4-0 black silk suture. The lesion was further send for histopathological examination.

Discussion

Osteomas, which are benign, slow-growing and well defined neoplasms, may originate from membranous maxillofacial bones. The tumours are often asymptomatic and are usually detected as an incidental finding on radiographic examinations.The mandible is more commonly involved than the maxilla. They usually occur in the posterior region of the mandible mainly on lingual side of the ramus or on the inferior mandibular border below the molars. Structurally, osteomas are divided into three types: those composed of compact bone (ivory), those composed of cancellous bone and those composed of a combination of compact and cancellous bone. Some believe osteomas with osteoblastoma-like features behave more aggressively. Cortical-type osteomas develop more often in men, while women have the highest incidence of the cancellous type.[3]

Though the exact etiology and pathogenesis is still unclear, traumatic, congenital, inflammatory and endocrine causes have been considered as possible etiologic factors. It is also suggested that the peripheral osteoma of the mandible is a traumatically induced reactive lesion and that muscle traction play a role in its initiation. In view of this possibility, the term “perosteal osseous hyperplasia” may be more appropriate for those lesions in which a positive history of trauma preceded the onset.[2, 3]

Imaging of Peripheral osteoma can be achieved by traditional radiography (i.e.: panoramic radiograph, Water’s view) or by CT scan. CT,particularly three-dimensional CT scans, is so useful in defining the exact extension of the tumour and to determine the position of the lesion in relation with adjacent anatomical structures, when removal of the lesion is considered.

The differential diagnosis includes exostoses–bony excrescences considered as hamartomas that stop growing after puberty, while osteomas may continue growth after puberty; peripheral ossifying fibroma – a reactive focal lesion; periosteal osteoblastoma; osteoid osteoma – those occur in young patients and are rare in the maxillofacial region. The appearance and homogeneity of osteoma is not difficult to characterize and diagnose.

A person who manifests with multiple intraoral or head and neck osteomas requires further radiographic work up to rule out Gardner’s syndrome. This syndrome, consisting of multiple epidermoid or sebaceous cysts, supernumerary teeth, retinal pigmentation and intestinal

© 2021 IJDSIR, All Rights Reserved

polyposis, necessitates a gastrointestinal radiographic evaluation because the polyps involved are premalignant. The treatment for osteoma is surgical excision, particularly if there is a painful or active lesion growth.[3, 4] Mandibular osteomas may be a genetic marker for the development of colorectal carcinoma. Therefore the patient with a diagnosis of mandibular osteoma, suspected to have Gardner's syndrome, should be further examined to rule out colorectal carcinoma.[5]

Conclusion

Osteoma of craniofacial region is a rare, slow-growing, benign lesion. So whenever a case of bony hard swelling in craniofacial region is encountered, osteoma should be included in the differential diagnosis and treatment modality for osteoma should be an osseous contouring surgery, if the patient is symptomatic.[5]

Legend Figure

Figure 1: showing a mass on lingual left side of mandible

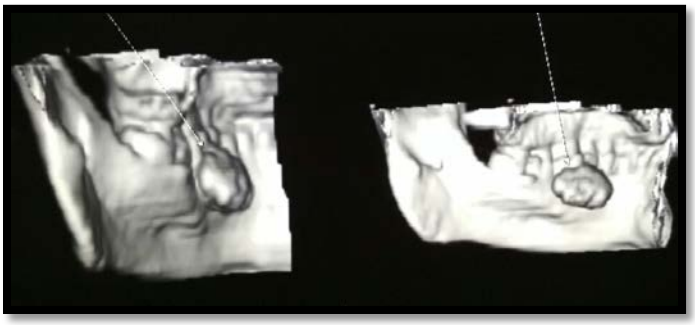

Figure 2: showing mass in 3D reconstruction

Figure 3: showing preoperative condition

Figure 4: showing preoperative condition

Figure 5: Intraoperative

Figure 6: Post operative

© 2021 IJDSIR, All Rights Reserved

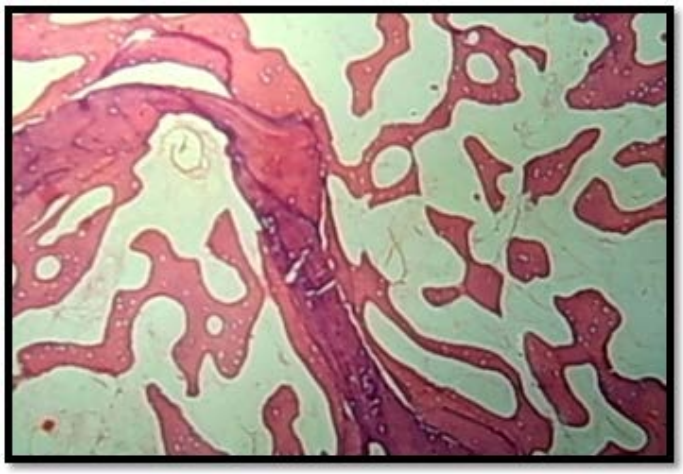

Figure 7: Histological presentation

Figure 8

References

1. Manjunatha B S, D Nagarajappa, Sutaria R,Ahmed T: Peripheral osteoma of body of mandible: BMJ Case Rep2013. Doi: 10.1136/bcr-2013-009857.
2. Rakshit K, Rajhans N,Mhaske N : Compact osteoma of mandible: A clinical case report: national Journal of Recent Trends in Science And Technology:2015: 14(3): 489-492.
3. Weihsin HU, Thandani S,Agrawal M: Peripheralosteoma of palate: Report of case and review of literature: Journal of Clinical and Diagnostic Research. 2014 Dec, Vol-8(12): ZD29-ZD31.
4. Srinivasan P,Nawaz KM,Shankar M: Osteoma of mandible: A case report : Journal of Indian Academy of Dental Specialist Researchers | Vol. 1 | Issue 1 | Jan-Jun 2014.
5. Ahmadi MS,Dehghan A: Osteoid osteoma presenting as a painful solitary skull lesion: A case report: Iranian Journal of Otorhinolaryngology, Vol.26(2), Serial No.75, Apr 2014.

© 2021 IJDSIR, All Rights Reserved