Scholars Journal of Medical Case Reports

OPEN ACCESS

Abbreviated Key Title: Sch J Med Case Rep
ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online)
Journal homepage: https://saspublishers.com/sjmcr/

A Case Report of a Central Giant Cell Granuloma of Maxilla

Y Sai Meghana[1*], D.Sathya Kumar Reddy[2], Sridhar Reddy Kanubaddy[3]

[1]Post graduate, [2]Professor and HOD, [3]Associate Professor, Department of Oral and Maxillofacial Surgery, Narayana Dental College and Hospital, Chinthareddypalem, Nellore-524002, Andhra Pradesh, India

DOI: 10.36347/sjmcr.2020.v08i03.007 | **Received:** 26.02.2020 | **Accepted:** 05.03.2020 | **Published:** 08.03.2020

***Corresponding author:** Y Sai Meghana

Abstract **Case Report**

Central giant cell granuloma (CGCG) is a benign condition, which is rare, intra-osseous and is commonly seen with indolent lesions of the mandible commonly, anterior to the first molar and is a rare occurrence in maxilla. It is a localized osteolytic lesion with varied biologic behavior of aggression which affects the jaw bones. It was hypothesized that the lesion is not a true neoplasm but merely the result of a local reparative reaction. The present paper highlights recent literature and clinical presentation of a case of central giant cell granuloma arising in Maxilla.

Keywords: Central Giant Granuloma Maxilla.

INTRODUCTION

Central giant cell granuloma was first described by Jaffe [1] in 1953 as central reparative granuloma. He also hypothesized that the lesion is not a true neoplasm but a result of a reparative reaction. In subsequent articles, aggressive lesions were also described and central giant cell reparative granuloma was therefore changed to central giant cell granuloma. Central giant cell granuloma of jaws is a certainly uncommon pathological condition of jaws accounting for about 7% of the benign jaw tumors. WHO has described it as an intraosseous lesion consisting of cellular fibrous tissue that contains multiple foci of hemorrhage, aggregations of multinucleated giant cells and trabeculae of woven bone? CGCG is said to have both aggressive and non-aggressive natures, where aggressive CGCG has a higher tendency to recur.

Though considered benign, giant cell granuloma has a tendency for progressive destruction of the tissues around. Hence a surgical treatment is well opted to prevent and eliminate further destruction of bone by the tumor.

Current experience indicates that the central giant cell granuloma of maxilla also exhibits a range of activity from benign granuloma to an aggressive neoplasm.

CASE REPORT

A 70 years old male patient (fig-1) reported with a complaint of slow growing painless swelling in the right upper back region of the jaw since 4 months. There was no history of pain and the swelling is slow growing and is not sudden in onset. Patient was a known diabetic and hypertensive and is under medication from the past 3 years. There is no noticeable extra-oral swelling or facial asymmetry. There was no difficulty in mouth opening and it measured around 44mm. Lymphnodes were not palpable. Intraorally on inspection a swelling is seen in the right posterior maxilla, measuring around 5×3 cm roughly oval shaped with diffuse borders, extending antero posteriorly mesial to the hamular notch and supero-inferiorly from the alveolar crest to the depth of the buccal sulcus (fig-2). The swelling is associated with missing teeth in relation to 17 and 18 for which the patient gives a history of extraction 4 months back which is associated with profuse bleeding. On palpation, the expanded buccal and palatal surfaces are firm, smooth and non-tender.

Investigations advised included FNAC, Radiological investigations including OPG (Orthopantomogram) and CT, USG, Thyroid profile, Serum calcium, Serum alkaline phosphatase and Routine blood investigations.

Radiographical examination of CT (fig-3, 4, 5) reveals a radiolucent lesion, showing expansion of buccal cortical plate. Incisional biopsy was done and sent for histological examination.

A diagnosis was made of Central giant cell granuloma after a histopathological examination, which revealed fibroblastic stroma with osteoclastic giant cells.

A treatment plan was made to surgically excise the lesion, followed by the closure of the oro antral communication with buccal pad of fat. A wide local excision (fig-6) was done under general anesthesia along with extraction 15 and 16. The surgery caused an anticipated oro antral communication for which buccal pad of fat (fig-7) was used to close the same. The patient was followed for 2 years with no signs of recurrence.

fig-1

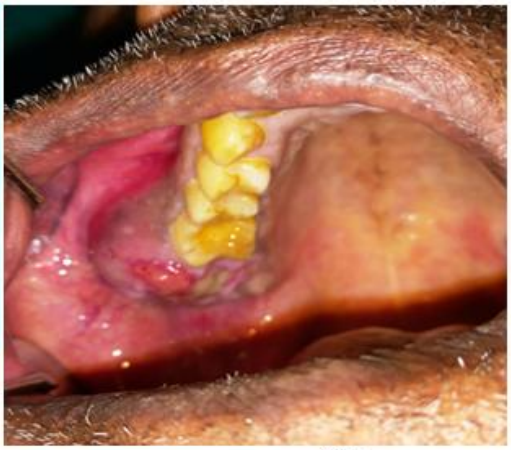

fig-2

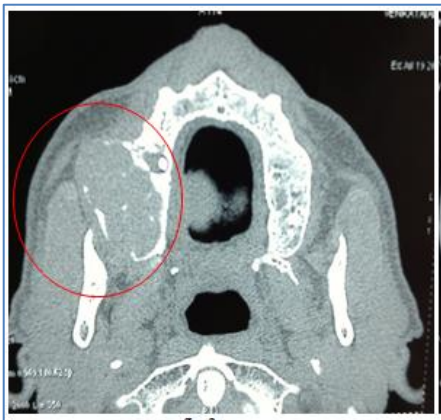

fig-3

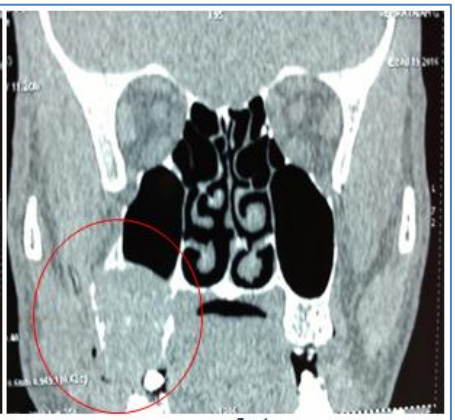

fig-4

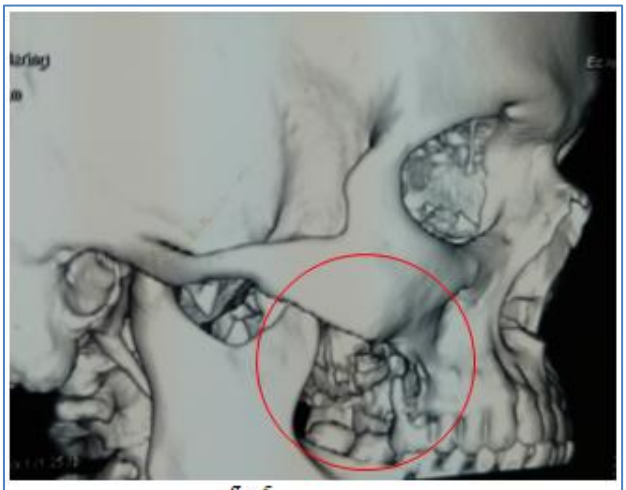

fig-5

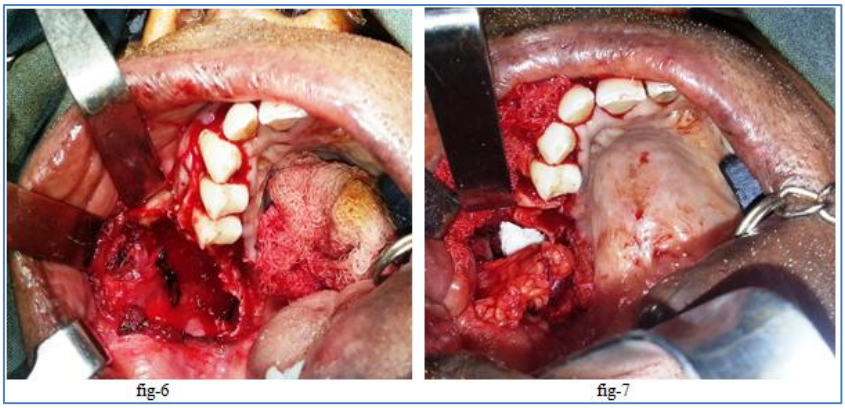

fig-6 fig-7

DISCUSSION

Cases of central giant cell granulomas are well recorded in the literature and it is said that all the cases have a female predilection. These are not neoplastic but are sometimes aggressive. CGCG was said to be occurring more in mandible than maxilla. Waldron and Shafer [2] examined 38 cases and found that females were affected twice as frequently as males & 74% of his cases were below 30 years of age. Cohen [3] reported that mandible is more frequently affected than maxilla. Waldron & Shafer [2] in their studies convinced that Central giant cell granuloma is in some way similar to the benign giant cell tumor of long bones. Some times as in the present case report, lesions are noticeable intraorally, but extraoral swelling may not be very significant.

Differential diagnosis for this lesion is usually Ameloblastoma, OKC, Traumatic bone cyst, AOT and other clinically & radiographically similar lesions.

CT gives best demonstration for the bony architecture around the lesion and hence is preferred. Histologically presence of multinucleated giant cells with new bone formation can be detected. Giant cell tumor has a tendency to recur but recurrence of CGCG after curettage is rare. Etiology of CGCG is still questionable though there have been a lot of controversies about the management of these lesions. From the past 15 years managing even the aggressive lesions of CGCG through medical management i.e. by injecting intralesional corticosteroids or by calcitonin and interferons has been carried out. Though in some cases this management proved to work, surgical management still is the gold standard for these lesions. Recently cryosurgery and stem cell induced bone formation were taking their troll in surgical advancements.

The incidence of recurrence ranges from 4-20%. But this does not influence the treatment to be carried out. To conclude, Central Giant cell granuloma is a benign lesion which is found to be rare in the jaws and has high success rate, when treated surgically without much chances of recurrence. The present case report shows the importance of anticipating and managing the possible post-operative complications due to the procedure while managing the lesions.

REFERENCES

1. Leban SG, Lepow H, Stratigos JJ. The giant cell lesion of jaws:neoplastic or reparative. J Oral Maxillofac Surg. 1971; 29:398-404
2. Waldron C, Shafer WG. The central giant cell reparative granuloma of the jaws. Am J Clin Pathol. 1966; 45:437-447
3. Cohen MA, Hertzanu Y. Radiologic features,including those seen with CT of central giant cell granuloma of the jaws. Oral Surg Oral Med Oral Pathol. 1988;65:255-261.
4. Sindhu MS, Prakash HSS. Sindhu British Journal of Oral and Maxillofacial Surgery. 1995; 33: 43-46
5. Pogrel MA. DDS American Association Of Oral and Maxillofacial Surgeons doi:10.1053/joms.2003.50129
6. Willem Hans Schreuder. J Cranio Max Surg doi:10. 1016/j.jcms.2016.11.011
7. Natalia B. Daroit, Richardo G. de Marco A J Oral Max Surg doi:10.1016/j.ajoms.2016.05.009
8. Carlo Ferretti BDS, Enesh Muthray J Oral Maxillofac Surg doi:10.1016/j.joms.2010.11.020.