

## “Central Giant Cell Granuloma of Maxilla- A Case Report”

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### Abstract:-

Central giant Cell granuloma (CGCG) formerly called giant cell reparative granuloma is a benign bony lesion and etiology is unclear. It occurs most commonly in mandible and also occur in maxilla. 1%-7% of all benign lesions of jaws are central giant cell granuloma. It affects children and adults. It is usually a slow growing lesion, fast growing lesions also reported. The fast growing CGCG has an aggressive behavior mimicking a malignant lesion through it has the innocent histological appearance. CGCG sometimes resemble a wide variety of conditions that led to a misdiagnosis both on clinical and radiographic examination. Histological examination confirms as CGCG. The case described here involved maxilla which was treated with surgical curettage. The patient has been followed up for 1½ years with no post operative complications and no recurrence.

**Keywords:** Central giant cell granuloma, maxilla, benign, jaw

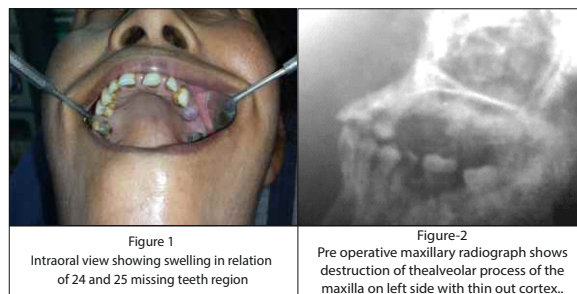
### Introduction:

Central giant cell granuloma (CGCG) is uncommon benign intraosseous lesion<sup>[1]</sup>. Jaffe first described it in 1953. CGCG is an idiopathic non-neoplastic proliferative lesion. CGCG was at one time widely term as reparative giant cell granuloma and was considered primarily to be a local reparative reaction of bone. Since the lesion represents essentially a destructive process the use of the term reparative has subsequently been discontinued<sup>[2]</sup>. WHO says it is an intraosseous lesion consisting of cellular fibrous tissue that contains multiple foci of hemorrhage, aggregations of multinucleated giant cells and occasional trabeculae of woven bone<sup>[3]</sup> CGCG occurs

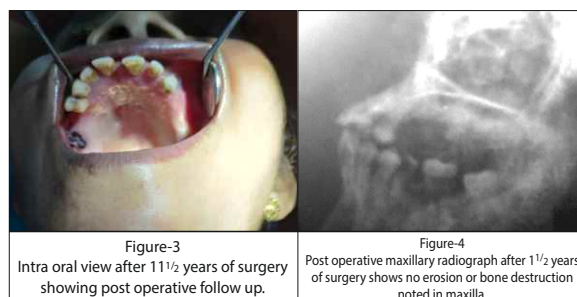
predominantly in females in 2nd and 3rd decade of life<sup>[4]</sup>. These lesions cause facial swelling, asymmetry and expansion of cortical plates clinically. Radiographically shows resorption of roots of teeth with cortical perforation<sup>[3]</sup>. A diagnosis of CGCG is made based on histopathology<sup>[2]</sup>. Though majority of these lesions occur in young patients there certainly is a percentage that occur in older patients.

### CASE REPORT

A female patient aged 53 years complained of a mass on the left maxillary region starting few months after extraction of a tooth. There was no pain. The physical examination of the lesion showed it as painless mass firm in consistency fixed to deeper layers measuring about 2x1 cm in diameter.



The patient underwent surgical curettage, pathology diagnosed the lesion as central giant cell granuloma.



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The patient is being monitored and no recurrence has arisen in the one and half year follow up

### **DISCUSSION**

Central giant cell granuloma (CGCG) is a nonneoplastic proliferation of unknown etiology. It is uncommon lesion. It occurs most commonly on the mandible than maxilla. Less than 7% of all benign lesions of mandible and maxilla is central giant cell granuloma. It occurs 2-3 times more frequently in mandible than in maxilla and more commonly on right side than on left side<sup>[1]</sup>. CGCG occurs generally in patient in 2nd and 3rd decades of life<sup>[1]</sup>. Central giant cell granuloma also occurs in other facial skeleton and cranial vault and rarely in short tubular bones of hand and feet<sup>[2]</sup>. In jaw bones central giant cell granuloma may be peripheral or central. Peripheral lesions present as pedunculated or sessile lesion on gingiva while central lesions are endosteal<sup>[5]</sup>. Usually it can present as painless swelling, rapid growth also seen in some cases, lesion can erode the bone particularly of the alveolar ridge to produce a soft tissue swelling<sup>[6]</sup>. It is twice as frequent in female<sup>[6]</sup>. Variable radiological appearance is seen in CGCG. Usually the lesion appears as a unilocular or multilocular radiolucency<sup>[5,7]</sup>. It may be well defined or ill defined and shows variable expansion and destruction of cortical plate. The radiological appearance of CGCG may be confused with that of many other lesions of jaws. The final diagnosis of CGCG is done by histopathology because the clinical and radiological features are not specific<sup>[7]</sup>. Histologically, CGCG contain focal arrangement of giant cells within a vascular stroma with thin walled capillaries adjacent to the giant cells. There is a spindle cell stroma, which may well be the cell of origin<sup>[8]</sup>. Surgery is the most accepted and traditional form of treatment. However tissue removal range from simple curettage to block resection<sup>[6,7]</sup>. Usually surgical curettage used for smaller lesion and for aggressive lesion block resection is used<sup>[6]</sup>.

### **CONCLUSION**

CGCG is an uncommon benign bony lesion affecting jaws and etiology of the lesion is unknown but is assumed to occur by trauma and inflammation. Diagnosis is based on histopathology. Surgical treatment is the common and widely accepted form of treatment.

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