Central Giant Cell Granuloma of the Posterior Maxilla: A Case Report

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INTRODUCTION

The giant cell granuloma is considered widely be a non-neoplastic lesion. It is an intraosseous lesion contains multiple foci of hemorrhage[1]. Although formerly designated giant cell reparative granuloma. There is little evidence that the lesion represents a reparative response [2]. Most oral and maxillofacial pathologists have dropped the term reparative. Today these lesion are designated as giant cell granuloma. CGCG is divided into two categories: Non aggressive and aggressive lesions. Aggressive lesions are characterized by pain, rapid growth cortical perforation and root resorption. Non aggressive lesion exhibit few or no symptoms demonstrate slow growth and do not show cortical perforation or root resorbtion [3]. The pathologic findings from aggressive and nonaggressive CGCG not difference then diagnosis is based on clinical features. Radiographically CGCG may be unilocular or multilocular. Small unilocular lesion may be confused with periapical granulomas or cyst. Multilocular CGCG can not be distinguished radiographically from ameloblastoma or other multilocunar lesions[4].

Case Report:

A 47 - year-old female patient referred to Department of oral medicine-Tabriz University of Medical science with a swelling on left side of the face existing for 2 months. The patient reported rapid growth of lesion nasal constriction and paraesthesia. The patient doesn't have with any systemic Disease. Extra oral examination revealed a diffuse swelling on the left side of the face causing obliteration of nasolabial fold resulting in facial asymmetry. The overlying skin was normal. Intra oral examination revealed swelling in labial and lingual aspect extending from the mesial of maxilla, obliterating the labial sulcus. It had a smooth surface, non tender and rubbery on palpation. The upper left central and lateral teeth showed grade I mobility. Clinically There was a swelling of the involving the labial as well as palatal aspects. Result of the aspiration is negative.

Panoramic radiography showed a well defined radiolosency with soft tissue density. Invasive of maxilla sinus and nasal cavity and bacal and lingual perforation from mesial of upper left lateral incisor to the posterior of the maxilla and widening of PDL upper left lateral and central incisor. Computer tomography (CT) in coronal and axial section showed a perforation of the sinus wall.
Based on history and clinical examination the following differentiation diagnosis were continued. Malignancy of jaw bone for example osteosarcoma because of site of lesion-rapidly growth, sex and age of patient were considered. Osteosarcom occur most often in the third and fourth decade of life. The maxilla and mandible are involved with about equal frequency. Maxillary lesion are discovered more commonly in the inferior portion than the superior, loosening of teeth, paraesthesia and nasal obstruction (in maxillary tumors).

Non Hodgkin’s lymphoma was another diagnosis to be considered that it occurs primarily in adult. Patient may complain of paraesthesia. Radiographies usually show an ill defined radiolosency. If untreated the process typically causes expansion of bone eventually perforation the cortical palate and swelling of soft tissue. The thirth diagnosis is CGCG. Giant cell granulomas may be encountered in patients ranging from 2 to 80 years of age, although more than 60% of all cases occur before age 30. A majority of giant cell granulomas are noted in females, and approximately 70% arise in the mandible. Lesions are more common in the anterior portions of the jaws, and mandibular lesions frequently cross the midline.

Histopathologic examination revealed a proliferation of multinucleated giant cells with in background of ovoid and spindle shaped mesenchymal cells. Hemorrhagic areas and infiltration of chromic inflammatory cells are seen. Bony
trabeculae also seen in periphery of the lesion. There is no evidence of malignancy. Regarding to sign and symptoms of this case diagnosis is CGCG.

Discussion:
Central giant cell granuloma is a rare bony lesion in the head and neck region[5]. It is a benign reactive lesion rather than benign neoplastic lesion. The etiology is still completely unknown but thought to be of a reactive process to some unknown stimulity. CGCG affects young people it can occur in the first three decades of life and in 60% of cases less than 20 years old how ever in this case the patient is older. The lesion is usually presents as painless growing mass with possibility of displaced or mobile teeth. The color of the overlying mucosa can be purple. It is usually detected as incidental finding during routine dental examination. CGCG usually grows slowly and sometimes quickly but in this patient CGCG grows quickly. It occurs most commonly in mandible than in the maxilla. The present case involved the maxilla. It can be observed anywhere in the mandible and occur most frequently in the anterior mandible. It is usually present as a solitary radiolucent expansion in most of the cases. Some lesions are more destructive with a marked tendency to recure. A more aggressive type of such lesion will require more radical treatment. The recurrence rate is reported to be 13-22% with most treatment failures manifesting within the first two years of the therapy[6]. Radiographically, central giant cell lesions appear as radiolucent detects, which may be unilocular or multilocular. The defect is usually well delineated, but the margins are generally noncorticated [7].

![Fig. 3: Large generalized radiopacity occupying right maxillary sinus in Axial section.](image)

The management of CGCG will depend on the clinical and radiographic findings. Generally, curettage of well-defind localized lesions is associated with a low rate of recurrence. In extensive lesion with radiographic evidence of perforation of cortex, a more radical excision is mandatory.

In such cases even partial maxillectomy has to be done. The medical management of CGCG as an adjunct to surgery include treatment with steroids or calcitonin with inhibits osteoclastic activity[8]. Interferon-alpha appears useful in the management of aggressive CGCG presumably due to its Anti-antigenic effects. Bisphosphonates have been administered intravenously in CGCG with promising results [3]. The clinical behavior of its lesion in quite variable and difficult to predict. Hence we suggest that CGCG should also be considered in the differential diagnosis of the swellings in maxillary posterior area even though it has a marked propensity to occur in the mandibular posterior area.

REFERENCES