CENTRAL GIANT CELL GRANULOMA- A CASE REPORT

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ABSTRACT:

Central giant cell granuloma is a non neoplastic lesion which exhibits a spectrum of clinical behavior ranging from nonaggressive to aggressive variants. This paper presents a case of CGCG involving the maxillary anterior region in a female patient with clinical, radiological, histopathological and surgical aspect of the lesion. The striking feature of present case is its aggressive nature and presence of the lesion in the anterior part of maxilla which is considered to be a rare finding as the lesion commonly occurs in the mandible anterior to first molar.

INTRODUCTION:

Central giant cell granuloma was first described by Jaffe in 1953. It is an uncommon, benign and proliferative non neoplastic process. The term central giant cell lesion has been proposed, as the microscopic features are not those of a true granulomatous process¹.

CASE REPORT

A 25 year old female patient referred to the dept of oral surgery, with the complaint of swelling in the right upper jaw since 1 year. History revealed that the swelling started as small one and progressively increased to the present size over a period of 1 year. It was associated with intermittent pain. There was no history of trauma, neurological deficit, fever, loss of appetite, loss of weight. There was no similar swelling present in any parts of the body. Patient was systemically healthy.

On extraoral examination a single, diffuse swelling was seen on the right side of the face in the region of anterior maxilla (fig.1). The swelling measured about 4X4 cms. The surface of the swelling was smooth and extended from right ala of the nose anteriorly to 5cms from the tragus of the ear posteriorly, superiorly 2cms from the infraorbital margin and inferiorly to the corner of the mouth. The swelling was firm in consistency, showed no secondary changes and was slightly tender on palpation.

Intra orally localized swelling was present on the right maxilla near the alveolar region.

There was expansion of alveolar bone labially extending from labial frenum to 15 region posteriorly. Palatally the swelling extended to midline of palate mediolaterally,
The mucosa over the swelling was normal (fig-2). There was obliteration of labial vestibule. On palpation the swelling was slightly tender but the temperature was normal. 12 was grade 2 mobile. 14 and 15 were found to be nonvital.

C.T. scan revealed a large unilocular radiolucent lesion with well defined margins with the interspersed septae within the lesion on the right side.

Routine haemogram and urine examination were normal. Aspiration was negative. On the basis of clinical and radiological examination a provisional diagnosis of AOT was made.

The serum chemistry of calcium, phosphorous, parathyroid hormone was normal, there by excluding the possibility of hyperthyroidism.

Histopathological examination of biopsied specimen revealed connective tissue made up of mature collagen fibres, fibroblasts and showing numerous multinucleate giant cells with foci of osseous structures (fig-5, 6).

The histological features were suggestive of CGCG. The case was posted for surgery under GA. Through the intraoral approach the lesion was exposed labially (fig-7). Enucleation with curettage was done with the removal of small amount of bone surrounding the lesion peripherally (fig-8). Extraction of 21, 11, 12, 13, 14 and 15 were done with primary closure of the surgical site (fig-9).

No signs of recurrence were found in six months period of follow-up.

**DISCUSSION**

CGCG is an intra osseous lesion which occurs predominantly in teens and adults. 60 to 70% of cases are diagnosed in patients younger than 30 year old.

In the jaws, lesion develops in the mandible more frequently than maxilla. Some times these lesion tends to cross the midline. Females are affected more frequently than males. Aggressive central giant cell lesions have been described as painful, rapidly growing and producing cortical perforation, root resorption. The most widely accepted method of surgical treatment of CGCG is aggressive curettage.

Curettage of the tumour mass followed by the removal of the peripheral bony margins results in a low recurrence rate and good prognosis. Intraliesional injection of corticosteroids has been proposed as a non surgical method of management of CGCG.

It remains some what controversial because some surgeons have not been able to duplicate the original success of this method. The use of exogenous calcitonin may have some merit in the treatment of aggressive lesions; It can be administered in two different modes i.e. 100 IV calcitonin subcutaneously daily or 50 IV calcitonin subcutaneously and 200 IV nasal spray daily. Function of giant cells is inhibited by calcitonin.
Surgery is the traditional and accepted form of treatment for CGCG which ranges from curettage to enbloc resection of the lesions.

**CONCLUSION:**

CGCG though a rare disease of head and neck sometimes shows an aggressive behavior and hence correct diagnosis is established by correlating clinical and histological features. Surgery is the traditional and accepted treatment but may be combined with local injection of steroids and calcitonin to avoid recurrence.

**DIFFERENTIAL DIAGNOSIS**

Ameloblastoma, Odontogenic myxoma, Ameloblastic fibroma, Ossifying fibroma, Hyperparathyroidism, Cherubism.

**REFERENCES**

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