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CENTRAL GIANT CELL GRANULOMAS OF THE JAW:Two case reports

ÇENELERİN SANTRAL DEV HÜCRELİ GRANÜLOMLARI: İki Vaka Raporu

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ÖZET

Santral dev hücreli granüloma belirgin klinikopatolojik özellikleri ile kemiğin yaygın benign lezyonlarından birisidir. Etyolojisi belli değildir ve biyolojik davranışı iyi bir şekilde anlaşılamamıştır. Bu lezyonların hemen hemen tamamı sadece çene kemiklerinde ortaya çıkar. Genellikle çene kemiğinde ağrısız bir şişlik şeklinde ve radyolojik olarak maksilla veya mandibulada radyolüsent bir lezyon şeklinde görülür. Konvansiyonel tedavisi lokal küretajdır. Bu tedavi yüksek başarı ayrıca düşük rekürrent oranına sahiptir. Bu makalede 2 santral dev hücreli granuloma vakası sunulmuştur.

Anahtar Kelimeler: *Dev hücreli granüloma, Tümör*

ABSTRACT

The central giant cell granuloma is a common benign osseous lesion with distinct clinicopathologic features. Its etiology is unknown and its biological behavior is poorly understood. This lesion occurs almost exclusively within the jaw bones. It usually presents as a painless swelling of the jawbone and is seen radiographically as a radiolucent lesion of the maxilla or mandible. Conventional treatment for the central giant cell granuloma has been local curettage. And this has been associated with a high success rate and low recurrence rate. 2 cases of central giant cell granuloma were reported in this study.

Key Words: *Giant cell granuloma, Tumor*

INTRODUCTION

Central giant cell granuloma (CGCG) is an uncommon, benign proliferative bony lesion[1]. Its etiology is not defined and its biological behavior is poorly understood. CGCG usually locates in the mandible and maxilla, in contrast to giant cell tumors of the extra-craniofacial skeleton[2].

The literature shows that the lesion generally appears before the age of 30 and occurs more common in the mandible than in the maxilla. About 70% of CGCGs involve the mandible[3-5].

CGCG demonstrates variable clinical behavior, ranging from a slowly growing, painless swelling to rapidly expanding aggressive tumors, characterized by pain, local destruction of bone, root displacement or resorption, and significantly a high recurrence rate[5,6].

CGCGs occur more frequently in women than in men, and conventional therapy is local curettage[6].

CASE REPORTS

Case 1

A-51-year- old woman referred to our department in May 2004 with a 3 months history of a swelling and pain in the left of the mandible molar region (Fig. 1). She did not have any signs or symptoms of infection. There was no history of trauma, dental problem or neck infection. The patient did not have any motor or sensory deficit. On

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computerized tomography, the lesion appeared as well demarcated, osteolytic and surrounded by a thin bony shell (Fig. 2).

Operation was performed under local anesthe - sia. Local curettage was then performed in the region of the lesion; the bony cavity was explored for any abnormalities. Routine wound closure was performed. The specimens were sent for immediate microscopic review. A histopathological report confirmed the diagnosis of a CGCG. Patient's postoperative course was uneventful (Fig. 3).

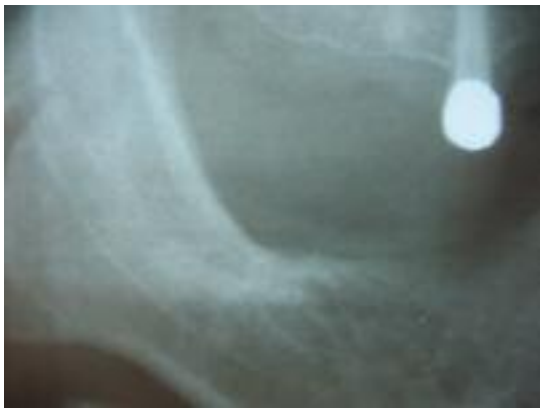

Fig 3: *Postoperative 23. months radiography.*

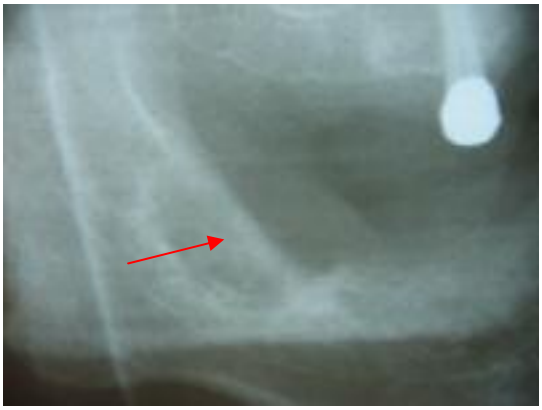

Fig 1: *The panoramic radiography of the lesion.*

Case 2

A 17-year-old, healthy and asymptomatic girl, first seen for routine dental care, was referred to an orthodontist. Dentist noticed a lesion on periapical radiography and sent the patient to our department. In intraoral and extraoral examinations, there was no any clinical finding. Radiographically there was multilocular radiolucency with displacement and resorption of radix of right maxillary central, and the borders were well-defined (Fig. 4). Vitality of the all teeth of the region was normal.

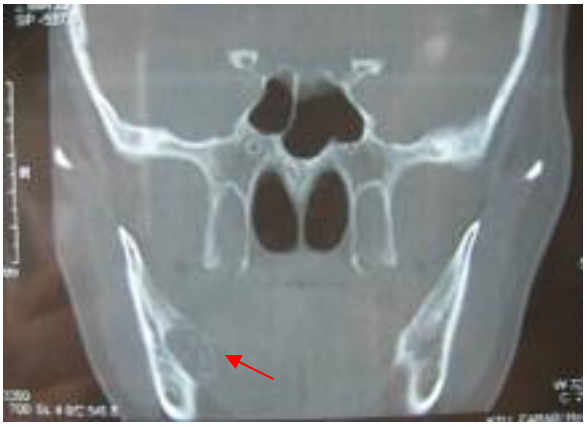

Fig 2: *The CT of the lesion.*

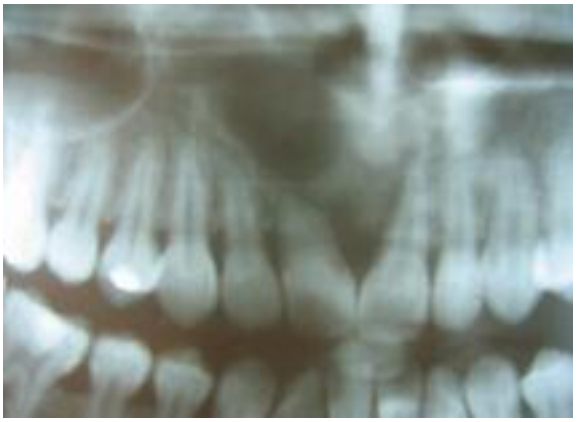

Fig 4: *The region of the lesion on panoramic radiography.*

In reviewing the findings with the patient in case, the differential diagnosis was first discussed, which include possible odontogenic cyst or tumor, and this was followed by a discussion regarding the surgical options. Before the operation, a biopsy was performed and the tissue was diagnosed central giant cell granuloma.

Operation was performed under local anesthesia. In the region of the lesion, thorough curettage was performed until healthy bone was encountered. Routine wound closure was performed. Maxillary right central tooth was mobile. This tooth was fixed to composite splint. The specimens were sent for immediate microscopic review. A histopathology report confirmed the diagnosis of a CGCG. Patient's postoperative course was uneventful. Over the next 15 months the patients had no symptoms. (Fig. 5)

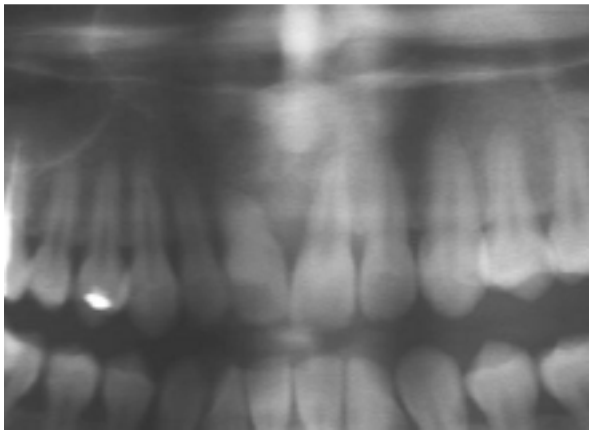

Fig 5: Postoperative 15. months radiography.

DISCUSSION

CGCG affects children and young adults, predominantly females[1-3]. It is an asymptomatic lesion and usually diagnosed during routine radiographic examinations or when facial asymmetry, impaired nasal breathing, the loosening or displacement of teeth occur[1,2]. Localized swelling is an important clinical feature. The swelling is smooth, and palpation can reveal a rubbery, elastic sensation where the bone is thin[2]. These lesions usually grow slowly, though they occasionally present a high rate of growth and cause some doubts about malignancy and a high rate of recurrence[1,2]. The developing lesions are usually painless and do not cause paresthesia. However, it has been reported that occasionally lesions may cause pain[1] .In our cases; both of the patients were female. In the first case; patient had reported 3 months history of a swelling and pain, but the second patient had not reported any symptoms.

CGCG involves the mandible more often than the maxilla and tends to occur in the anterior part of the molars[1,3]. In these cases; one of these lesions occurred in the mandible while the other occurred in the maxilla.

Radiographic appearance of CGCG changes with the size of the lesion. Small lesions usually appear to be unilocular radiolucent and deprived of internal bone septa. However, large lesions usually appear to be multilocular radiolucent and like wispy bony septae in this area. The average size of the unilocular lesions was determined as 23.75 mm and multilocular lesions were 53.00 mm. It has also been reported that the larger CGCGs grow in size, the more probability there will be tooth displacement and expansion in bones[1]. In our cases; both of the lesions appeared as unilocular radiolucency.

Although Whitaker and Waldron[7] reported tooth displacement in 36% of the lesions and root resorption in 43%, a lot of researchers remarked that tooth displacement would be seen more frequently in CGCGs than root resorption[1]. In these cases, lesion-related root resorption and tooth displacement was found in the case 2 but this tooth was vital.

The reported recurrence rate after conventional surgical curettage ranges from 11% to 49% [3]. However, en bloc resection has been suggested as the treatment of choice for locally aggressive CGCG. This type of lesion has also been treated by non-surgical methods, including radiotherapy, daily systemic doses of calcitonin, administration of alpha interferon, and intralesional injection with corticosteroids[6]. In our cases; no recurrence appeared two years follow up.

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Yazışma Adresi

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