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NƏHƏNGHÜCEYRƏLİ QRANULOMANIN MİNİMAL İNVAZİV MÜALİCƏSİ: KLİNİK MÜŞAHİDƏ

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Məqalədə müəlliflərin 73 yaşlı xəstə qadında müşahidə etdikləri nəhənghüceyrəli qranuloma xəstəliyi haqqında məlumat verilmişdir. Bu tip şişlərə adətən uşaqların və gənclərin çənəsində daha çox rast gəlinir. Mərkəzi nəhənghüceyrəli qranulomanın klinik və radioloji xüsusiyyətlərinə görə aqressiv və qeyri-aqressiv növləri vardır. Müəlliflərin müşahidəsi altında olan 73 yaşlı xəstə qadın alt çənənin sol retromolyar sahəsində törənən şişə görə klinikaya müraciət etmişdir. Xəstənin çənəsində iri və yumşaq şiş müşahidə edilmişdir. Aşkar radioloji əlamət olmasa da, sümüyün zədələnməsi və hərəkətin itirilməsi müşahidə edilmişdir. Bir neçə dişi çıxarılmış xəstə illər ərzində protezdən istifadə etməmişdir. Klinikaya daxil olandan əvvəl başqa bir xəstəxananın qulaq, burun, boğaz şöbəsində xəstəyə hemimandibulektomiya təklif edilmişdir. Xəstəxananın cərrahi bölümündə müayinədən sonra xəstəyə sadəcə şiş toxumasının eksiziyası etmək məqbul hesab edilmişdir. Əməliyyatdan sonra çıxarılan materialın patomorfoloji analizi zamanı nəhənghüceyrəli qranuloma diaqnozu qoyulmuşdur. Sonrakı yoxlamalar zamanı əməliyyat sahəsində paresteziyanın olmadığı müşahidə edilmiş və xəstəliyin residivləşməsi baş verməmişdir.

Açar sözlər: *nəhənghüceyrəli qranuloma, minimal invaziv müalicə, hemimandibulektomiya*

Ключевые слова: *гигантоклеточная гранулема, минимальное инвазивное лечение, гемимандибулэктомия*

Key words: *giant cell granuloma, minimal invasive treatment, hemimandibulectomy*

MINIMAL INVASIVE TREATMENT OF GIANT CELL GRANULOMA: CASE REPORT

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The article provides information about a case of giant cell granuloma observed in a 73-year-old female patient. Giant cell granuloma is a fibrosclerotic lesion that is more common in the female mandible, especially in children and young adults. It can be unilocular or multilocular. Central giant cell granulomas can be classified as "non-aggressive" or "aggressive" based on clinical, radiologic, and histologic features. Treatment consists of surgical excision, which in most cases preserves the dentition. A 73-year-old woman came to our clinic with swelling mostly in retromolar area of the left mandible. The lesion was massive, soft and sessile. Extensive bone loss and mobility, without significant radiolucency was noticed. The patient with multiple missing teeth had been using partial dentures for years. The otolaryngology department in another research hospital recommended hemimandibulectomy. In our maxillofacial department was considered reasonable only excision of the lesion. After surgery, the excised material was sent to pathological examination and the diagnose was giant cell granuloma. There was no post-operative paresthesia and no recurrency noticed in follow- up appointments. Correct diagnosis is very important for patient treatment. On the other hand, conservative approach increases the quality of life and aesthetics after surgery.

İntroduction

Central giant cell granuloma (CGCG) is a benign osteolytic tumor exclusive to the jaws of non-odontogenic origin. It accounts for 7 % of mandibular tumors. It predominates in the young population, under 30 years of age, with a female-to-male ratio of 2:1. It occurs more frequentlyin the mandible than in the maxilla, in a 3:2 ratio, and is more common in the molar and premolar areas. Most cases are asymptomatic and are accidentally diagnosed in imaging tests; however, more aggressive forms exhibit rapid growth, pain, paresthesia, resorption of dental roots, cortical lysis, and with a high recurrence rate after surgical treatment[1]

WHO has defined CGCG as "A localized benign but sometimes aggressive, osteolytic proliferation consisting of fibrous tissue with hemorrhage, hemosiderin deposits and presence of osteoclast-like giant cells with reactive bone formation. [2].

The aim of this research is to present a case of central giant cell granuloma and to review the characteristics of the disease and the differential diagnosis based on the literature. The importance of diagnosis in treatment planning and the benefits of choosing conservative treatment options whenever possible is also emphasized.

Case report:

In 2022 a 73-year-old woman referred to the Oral and Maxillofacial department of Katip Çelebi University,with swelling mostly in retromolar area of the left mandible, up to the teeth level (Fig. 1).

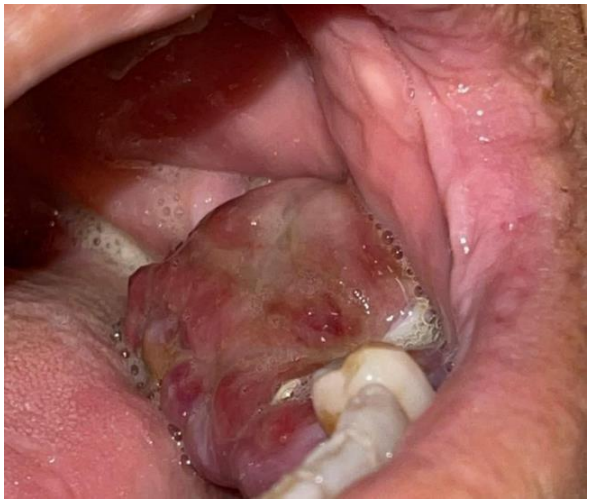

Fig. 1. Intraoral view of the lesion

The lesion was massive, soft and sessile. After panoramic dental X-Ray image examination extensive bone loss and mobility, without significant radiolucency image was revealed. The patient, who had been using a partial denture for several years and had several missing teeth, was recommended to the Department of Otolaryngology of a research hospital for hemimandibulectomy. In our maxilofacial department, only excision of the lesion was considered reasonable. The lesion was carefully dissected from the anatomical structures as mental nerve, lingual nerve and underlying healthy tissues (Fig. 2).

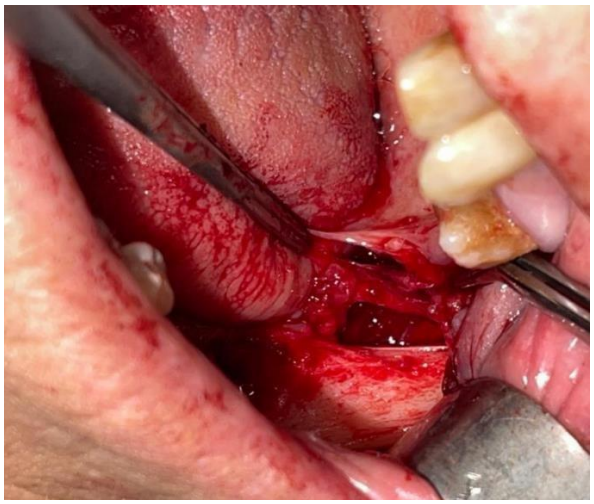

Fig. 2. Lingual nerve view after careful dissection of the lesion

After surgery, the excised material was sent for pathological examination. Macroscopically, no dysplastic lesion was observed in the light brown material covered with mucosa on one side and irregularly shaped on the other side.

The pathological diagnosis was giant cell granuloma. The lesion was characterized by the presence of multinucleated giant cells, in conjunction with a surrounding background of oval to spindle-shaped mesenchymal cells and round monocyte-macrophage. Osteoclastic giant cells which were large and round and contain 20 or more nuclei, were found scattered throughout the lesion. The stroma within the lesion was loosely organized and edematous.

Areas of erythrocyte extravasation and hemosiderin deposition was visible.

Discussion. Lesions caused by giant cell granulomas tend to enlarge the cortical margins of the maxilla and mandible.[5]. In some instances, the outer cortical plate of the bone is

destroyed instead of expanded. Cortical bone destruction can create a malignancy-like appearance of the lesion. [2] In our case, the irregular, wavy expansion of the lesion caused it to appear as a double border on orthopantomography.

If the central giant cell granuloma's internal structure contains septa, it may be challenging to differentiate from other diagnoses, such as odontogenic myxoma, aneurysmal bone cyst, and ameloblastoma. The age group and location are essential distinguishing factors, as ameloblastoma usually occur in older individuals and more frequently in the mandibular posterior region. Ameloblastoma display rough, curved trabeculae. In contrast, giant cell granulomas feature thin and indistinct trabeculae that may be located in specific corners in the periphery. Odontogenic myxomas typically occur in older age groups and their septa may be flat and sharp. Unlike giant cell granulomas, they do not have a tendency to enlarge. [2]

It is noteworthy that aneurysmal bone cysts can radiographically resemble giant cell granulomas, particularly in the internal septa's appearance.[6] A small central lesion of giant cell granuloma with a fully radiolucent internal structure can resemble a cyst, such as a simple bone cyst. However, displacement or resorption of adjacent teeth and even enlargement of the outer cortical bone are more distinctive indications of a giant cell granuloma. [7] The radiographic and histological appearance of brown tumors of hyperparathyroidism may be similar to that of a central giant cell granuloma. [8]

Lesions are typically treated with deep curettage, which results in a recurrence. Lesions that are considered potentially aggressive clinically and radiologically show a high frequency of recurrence. Recurrent lesions often respond to curettage, but some may be aggressive lesions that require more radical surgical intervention. Three nonsurgical alternatives have been proposed for patients with aggressive tumors: corticosteroids, calcitonin, and alpha-2a interferon. Numerous researchers have report Giant cell granulomas can displace and absorb teeth. Tooth root resorption is not always present, but when it occurs, it can be deep and have irregular contours. Typically, the lamina dura of teeth within the lesion is lost.[3] In our case, premolars and anterior teeth demonstrated loss of lamina dura, while posterior molars showed irregular and interrupted lamina dura. According to Waldron et.al, the inferior alveolar canal may be displaced downwards.[4] In our case, the inferior alveolar canal on the side with the lesion differs from the canal on the symmetrical side.ed large numbers of patients, some of whom responded favorably to interferon. [9]

Additionally, a weekly injection of triamcinolone acetonide has been successfully used for about 6 weeks directly into the tumor.[10]

Systemic administration of calcitonin has led to the healing of numerous lesions, including some that are resistant to intralesional corticosteroids. Calcitonin is typically given as a daily intradermal injection or nasal spray for around 12 months. For large lesions that result in significant deformities when treated surgically, alternative treatments should be considered. [9]

Conclusion

Correct diagnosis is very important for treatment of CGCG patients. On the other hand, minimal invasive approach increases the quality of life and mandible aesthetics after surgery. A greater number of patients need to be studied with appropriate controls to compare these treatments with surgery.

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МИНИМАЛЬНО ИНВАЗИВНОЕ ЛЕЧЕНИЕ ГИГАНТОКЛЕТОЧНОЙ ГРАНУЛЕМЫ: КЛИНИЧЕСКОЕ НАБЛЮДЕНИЕ

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Резюме. В статье представлены сведения о гигантоклеточной гранулеме, наблюдавшейся авторами у пациентки 73 лет. Этот тип опухоли обычно чаще встречается в челюстях детей и молодежи. По клиническим и рентгенологическим характеристикам различают агрессивный и неагрессивный типы центральной гигантоклеточной гранулемы. Пациентка, находящаяся под наблюдением авторов, обратилась в клинику по поводу опухоли в левой ретромолярной области нижней челюсти. На ее челюсти наблюдалась большая и мягкая опухоль. Хотя очевидных рентгенологических признаков не было, отмечалось повреждение кости и потеря подвижности. Пациентка после удаления некоторых зубов в течение многих лет не пользовалась зубными протезами. Перед поступлением в клинику ей в отоларингологическом отделении другой больницы была предложена гемимандибулэктомия. После обследования в хирургическом отделении больницы было признано приемлемым простое иссечение опухолевой ткани. При патоморфологическом анализе материала, удаленного после операции, диагностирована гигантоклеточная гранулема. При последующих осмотрах отмечено отсутствие парестезий в зоне операции и не было рецидива заболевания.

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