

Mandibular intraosseous hemangioma mimicking dental infection**Odontojen enfeksiyon ile karışan kemik içi yerleşimli mandibuler hemanjiom**Zeytinoğlu M¹ Ünal T² Sezer F B¹ Efeoğlu C¹¹Ege Üniversitesi Diş Hekimliği Fakültesi, Ağız Diş ve Çene Cerrahisi Anabilim Dalı, İzmir, Türkiye²Ege Üniversitesi Diş Hekimliği Fakültesi, Patoloji Birimi, İzmir, Türkiye**Summary**

Hemangioma is a neoplasm that is rarely seen in the oral cavity. The most commonly affected facial bones are the mandible, the maxilla and the nasal bones. A case of intraosseous hemangioma, adjacent to a lower molar with periodontitis is presented. The involved tooth and the lesion were excised under local anesthesia. Histopathological examination did not reveal cellular atypia or mitotic activity. The differential diagnosis of radiolucent periapical lesions is discussed with emphasis on radiographic appearance. Intraosseous hemangioma of the mandible is a very rare pathology and this case has unique aspects like the misleading presentation, the age and sex of the patient. Removal of the involved tooth and a complete enucleation of the central hemangioma were sufficient for the treatment of this case, and there were no clinical or radiological signs of recurrence three years after the operation.

Key Words: Hemangioma, mandible, jaw, maxilla.

Özet

Kemik içi yerleşimli mandibuler hemanjiom oral kavitede nadir görülür. En sık etkilenen yüz kemikleri mandibula, maksilla ve burun kemikleridir. Marjinal periodontitisli bir alt büyük azı dişinin komşuluğunda izlenen ve kemik içi yerleşimli bir mandibuler hemanjiom olgusu sunulmaktadır. İlgili diş ve lezyon lokal anestezi altında eksize edilmiştir. Histopatolojik tetkikte hücresel atipi veya mitotik aktivite saptanmamıştır. Bu olgunun yanıltıcı hikâyesi ve klinik bulguları radyografik görünüm ve ayırıcı tanıya ağırlık verilerek tartışılmaktadır. Tedavi için ilgili dişin çekimi ve santral hemanjiomun enukleasyonu yeterli olmuştur. Operasyondan sonraki 3 yıl boyunca takip edilen hastada tümörün nüks ettiğine dair her hangi bir klinik veya radyolojik bulguya rastlanmamıştır.

Anahtar Sözcükler: Hemanjioma, mandibula, çene, maksilla.

Introduction

Hemangioma is a true neoplasm that may involutes in time, however 10-20% of the cases require ablative treatment. The head and neck are the commonly effected sites (1-4). The peak incidence is in the second decade of life and there is a sex predilection that favors females over males (2:1) (5).

Intraosseous hemangiomas usually present as non-painful bony swellings in different sizes (6). Their radiographic appearance may mimic various other pathologies; therefore, CT, contrast-enhanced MRI and angiography are helpful diagnostic tools. Biopsy of vascular lesions or even a simple tooth extraction can result in a catastrophic hemorrhages leading to death (7,8).

Treatment could be medical and/or surgical. Medical treatment includes steroids or interferon alpha as the drugs of choice; where as surgical treatment options include embolotherapy, lasers, cryosurgery and surgical resection (9-12).

Case

A 57 year old male was referred to our clinic complaining of a dull pain and a swelling around the left side of his lower jaw. The patient was medically fit and healthy.

The pain had been present for a few days but the patient could not remember how long the swelling had been present. However further questioning revealed that, the patient had had several episodes of pain and swelling in the previous few months, which were treated with antibiotics.

On clinical examination, the patient had a neglected dentition with several carious teeth. Basic periodontal examination revealed attachment loss on all quadrants. On the soft tissue examination, there was a firm, round

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and localized swelling on the buccal aspect of the alveolar bone adjacent to the lower left first molar. There was no pulsation or audible bruits. Soft tissues adjacent to the swelling were healthy with no discoloration. The lower left first molar was grade III mobile and had no caries. The tooth was tender to percussion however vitalometry testing using an electric pulp tester and cold test gave a positive result.

On radiographic-examination, there was a radiolucency which extended from the lower left first molar to the proximal edentulous alveolar bone (Figure-1).



Figure-1. A panoramic view taken on presentation.

Differential diagnosis included periodontal abscess, chronic apical periodontitis, periapical cyst or hemangioma that is superimposed with an antibioma. According to the clinical and radiographical findings, removal of the lower left first molar and excisional biopsy of the lesion under local anaesthesia was planned.

Written and verbal consent was sought for the procedure. Accordingly a mucoperiosteal flap was raised, the tooth was extracted and the lesion was enucleated under local anaesthesia. The enucleated specimen was sent for histopathological analysis. Healing was uneventful.

Histopathological diagnosis was a central hemangioma of the cavernous type (Figure-2). The patient was regularly reviewed for three years with no clinical or radiological signs of recurrence and remains symptom free (Figure-3).

Discussion

Radiographic appearance of central hemangiomas can be variable (5, 6). Multilocular radiolucencies may give the lesion a honey combed or soap-bubble appearance with poorly defined borders (5, 6). Yung et al. (5) reported a series of 14 central hemangioma cases with different radiographic appearances; honey combed in seven patients, multiple-irregular radiolucencies in six patients, and only one patient had a cystic radiolucency similar to the case presented in our report.

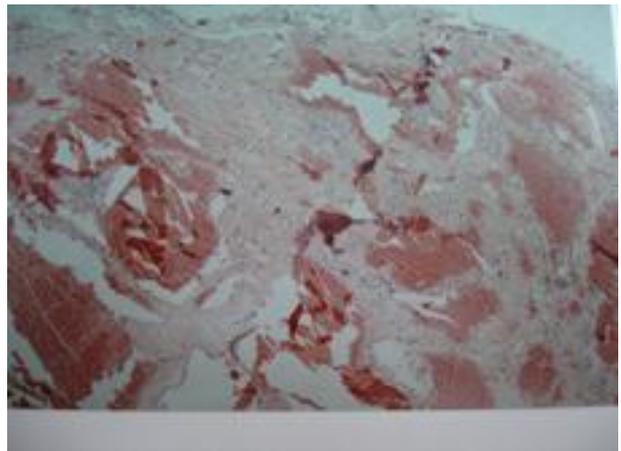


Figure-2. Dilated and thin-walled vascular spaces are lined by benign endothelial cells. Several large patent blood vessels of the cavernous type are seen in a fibrous connective tissue stroma (HE, magnification X44).



Figure-3. A panoramic view taken three years post-operatively.

The variable radiographic appearance of central hemangiomas implies that, periapical granuloma, periapical cyst, ameloblastoma, central giant cell granuloma, myxoma, multiple myeloma, fibrous dysplasia and osteogenic sarcoma should be considered in the differential diagnosis (6).

Small hemangiomas usually respond well to conservative surgical procedures, but the standard surgical treatment of hemangiomas is complete excision with a narrow margin of healthy bone while controlling hemorrhage (6).

Intraosseous hemangioma of the mandible is a very rare pathology and there are around 80 mandibular intraosseous hemangioma cases reported to date. We are not aware of any reports that had a superimposed dental infection as in our case. The misleading presentation, age and sex of the patient constitute the unique aspects of this case. Removal of the involved tooth and a complete enucleation of the central hemangioma were sufficient for treatment.

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