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INTRODUCTION

Traumatic bone cysts are non-epithelial cavities of the jawbones. The absence of true epithelium in the cavity prevents it from being identified as a true cyst (1).

It has been referred to by many names in the literature, including solitary bone cyst (2), hemorrhagic bone cyst (3), extravasation cyst (4), progressive bone cavity (5), and simple bone cyst (6). Many nomenclature efforts show that the etiology of the defect is still not totally understood. The definition of traumatic bone cyst is currently the most valid definition for this lesion (7). It is usually seen in the second decade (3,8-10). The most common site is the mandible corpus region. The second most common site is the mandible symphysis region. It has also been reported to occur in the mandible ramus, condyle, and maxilla anterior segment. It is mostly noticed during routine radiological examination (8,10,11). Pain is not often seen. Less common symptoms are tooth sensitivity, fistulas, paresthesia, delayed eruption, inferior alveolar canal displacement, and pathological mandible fracture.

Expansion of the lesion towards the buccal cortical bone may cause intraoral and extraoral swelling. Adjacent teeth are generally vital, not displaced, and resorption is not seen in the roots of adjacent teeth (3,5,9,12,13).

The absence of histological material in the cavity prevents the

Traumatic bone cyst in mandible ramus

Abstract

Traumatic bone cysts are non-epithelial cavities of the jawbones. Expansion of the lesion towards the buccal cortical bone may cause intraoral and extraoral swelling. The most common site is the mandible corpus region. It is generally diagnosed by routine radiographic examination. The absence of histological material in the cavity prevents the histological diagnosis. Generally, it is recommended to open the cavity surgically and curettage all the walls in the treatment. In our case, surgical approach has been explained and the post operative one year follow up reported.

Keywords: Bone cyst, Mandible ramus, Marsupialization treatment, Bone cyst, Clot formation

histological diagnosis (13,14). Generally, it is recommended to open the cavity surgically and curettage all the walls in the treatment. Thus, the clot formed in the cavity as a result of bleeding results in bone formation in the progressive process (15,16).

CASE REPORT

A 14-year-old female patient was referred to Hatay Mustafa Kemal University, Faculty of Dentistry, Department of Maxillofacial Surgery due to a lesion that was noticed as a result of a routine dental examination. A unilocular radiolucent lesion of 5-6 cm in diameter was observed in the right mandible ramus, angulus, and corpus regions. Finding the lesion around the existing impacted wisdom tooth (third molar) suggested the possibility of a dentigerous cyst, keratocystic odontogenic tumor, or unicystic ameloblastoma. However, there was no inferior alveolar canal displacement in this case [Figure 1].

Primarily, marsupialization treatment was considered to prevent possible pathological bone fracture or inferior alveolar nerve damage that may occur during the operation. For this purpose, no cyst epithelium or pathological contents were observed after a surgical incision was made under local anesthesia. Considering that it was a traumatic bone cyst, the cavity walls were curetted and bled as much as possible. The cavity was then sutured to

leave it open.

The patient was instructed to clean the cavity by irrigating with serum physiological at least four times a day. The patient was called for routine controls at the end of the post-op 1st week, 2nd week, 1st month, 3rd month, 6th month, and 1st year. At the end of 1 year, the cavity left open was sutured to close it.



Figure 1.



Figure 2.



Figure 3.

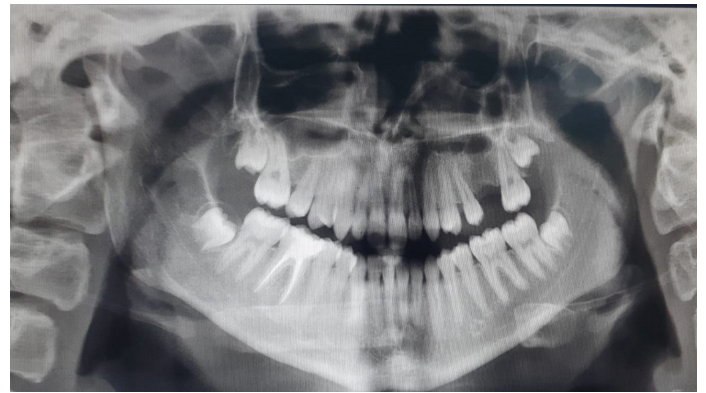


Figure 4.

CONCLUSION

As a result of the patient's routine controls, it was observed that the cavity in the bone shrank. Radiographs were taken at the end of the 1st month, 3rd month, 6th month, and 1st year showed that the cavity was almost completely closed [Figure 2,3,4].

DISCUSSION

In this case, as in other cases reported in the literature, the lesion in the bone was healed as a result of surgical curettage and hemorrhage (15,16). Pommer suggested that the hematoma formed as a result of trauma to the bone is effective in this process. He thought that after the hematoma, the enzymatic activity of the blood clot resorbs the adjacent bone (17). Blum and Thoma also think that this lesion occurred due to a previous traumatic process in the jaws. They suggested that subperiosteal hematoma increases osteoclastic bone activity (18,19).

It is observed that the time between the discovery of the traumatic bone cyst in the jaw and the previous trauma history varies between 1 week and 20 years (4,8,13).

Although the pathogenesis and etiology are not fully understood in general, it has been understood that it is largely caused by trauma. In our case, although it is thought that a traumatic bone cyst occurred as a result of iatrogenic trauma, definitive evidence is lacking.

Conflict of interests

The authors declare that they have no competing interests.

Financial Disclosure

All authors declare no financial support.

Informed Consent

Written consent was obtained from the patient and his parents..

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