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Peripheral Ameloblastic Fibroma: A Rare Case Report

Periferal Ameloblastik Fibroma: Nadir Bir Olgu Sunumu

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ABSTRACT

Central ameloblastic fibroma is a benign mixed odontogenic tumor that is usually observed in the posterior mandible and in males. Peripheral ameloblastic fibroma is extremely rare, with only 5 cases reported in the literature published in English as far as is known. The peripheral ameloblastic fibroma should also be included in the differential diagnosis of gingival enlargement. This case report presents a peripheral ameloblastic fibroma in the left maxillary premolar region of a 46-year-old female patient.

Keywords: ameloblastic fibroma, peripheral, gingiva

ÖZ

Santral ameloblastik fibroma genellikle erkeklerde ve posterior mandibulada gözlenen benign mikst odontojenik bir tümördür. Periferik ameloblastik fibroma, bilindiği kadarıyla İngilizce olarak yayınlanan literatürde bildirilen beş vaka ile son derece nadirdir. Dişetini ilgilendiren büyümelerin ayırıcı tanısında periferal ameloblastik fibroma da bulundurulmalıdır. Bu vaka raporu, 46 yaşında bir kadın hastanın sol maksiller premolar bölgesinde periferik bir ameloblastik fibromu sunmaktadır.

Anahtar kelimeler: ameloblastik fibroma, periferal, gingiva

INTRODUCTION

Ameloblastic fibroma is a mixed and benign rare odontogenic tumor that comprises both the epithelial and mesenchymal tissues. Young people—especially those in their second decade of life—are usually diagnosed with it.[1] It has a higher rate of incidence among men.[2,3] It is usually painless and develops in the posterior mandibular region.[2,3] Although it is very rare in the gingival soft tissue (peripheral-extraosseous type), 7 cases have been reported, 2 of which have been found in the literature published in Japanese and 5 in the literature published in English.[4-9] Buchner and Sciubba did not mention peripheral ameloblastic fibroma in their review study on peripheral epithelial odontogenic tumors in 1987.[10] This study presented a case of peripheral ameloblastic fibroma that developed in the maxilla of a 46-year-old female patient unlike the classical clinical features of central ameloblastic fibroma.

CASE

A systemically healthy 46-year-old female patient came into the Oral & Maxillofacial Radiology unit with the complaint of a growing mass in her mouth. The patient, who had poor oral hygiene, had an irregularly shaped, pedunculated lesion in the left upper alveolar area, just distal to the canine tooth. The lesion, which had reddish color in certain areas, was approximately 4 x 3 x 2 cm in size (Figure 1).

The lesion had reached this size within approximately 1 year and did not cause any pain. The patient did not smoke or use dentures. The lesion observed in the gingiva gave a radiopaque image upon her panoramic radiography; however, there was no pathology in the alveolar bone (Figure 2). There was no observable change in the alveolar bone in the CBCT image, which was taken for a more detailed examination and examined by 2 maxillofacial radiologists. The CBCT image could not be included in this article because it had been deleted due to a technical error.

Pyogenic granuloma or peripheral giant cell granuloma was considered as a pre-diagnosis. Therefore, she underwent an excisional biopsy under local anesthesia. The pedunculated lesion was removed from the area with ease. Then, detartrage and curettage were applied to the teeth near the area due to intense tartar.

Microscopic examination of a gray-white elastic tissue piece revealed ulcer on the surface, ossification in the depth of the ulcer, and thin- and thick-walled vessels around the ulcer, alongside hyalinized myxoid stroma and ameloblastic cell in the lamina propria (Figure 3). The patient was diagnosed with peripheral ameloblastic fibroma following the histopathological examination. The patient, who was followed up for 3 years, suffered no complaints after the surgery. No recurrence was observed in the area.

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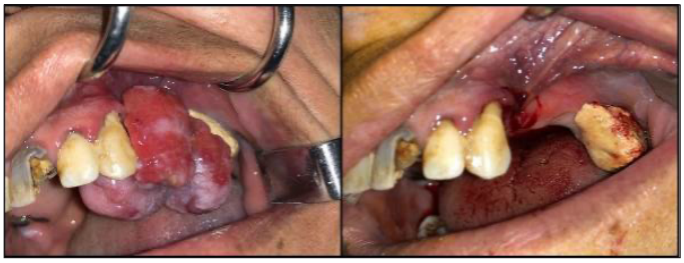

Figure 1.
The view of the area with irregularly-shaped, pedunculated lesion before and after surgery.

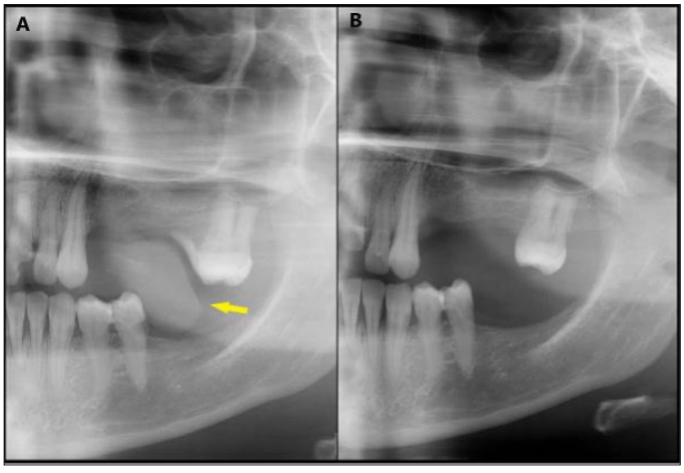

Figure 2.
A. Image of the radiopaque lesion in the upper left region on the panoramic radiograph. B. Panoramic radiograph image of the related area a year after surgery.

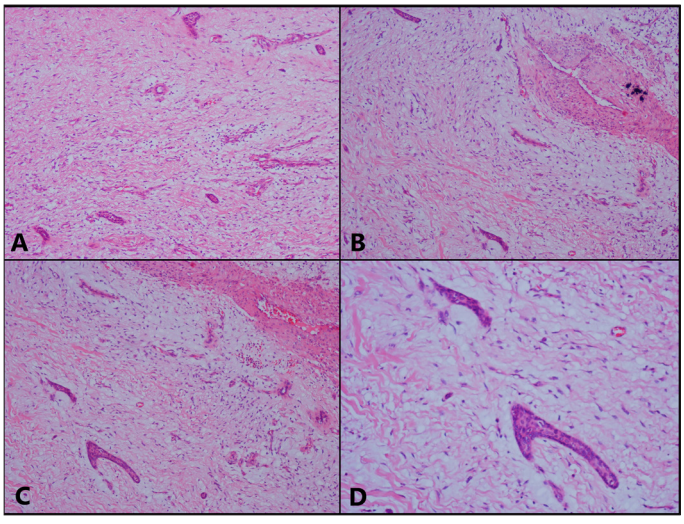

Figure 3.
A general view of the material taken from the gingiva. A. Hyalinized myxoid stroma ameloblastic cells in the lamina propria HE x 20. B. Ossification in the depth of the ulcer, thin and thick-walled vessels in the periphery, ameloblastic cells. HE x 10. C. Groups of ameloblastic cells in the depth of the ulcer around the thick-walled vessel. HE x 10. D. Detailed view of ameloblastic cells in the depth of the ulcer, around the thick-walled vessel. HE x 20.

DISCUSSION

Central ameloblastic fibroma constitutes 2% of all odontogenic tumors.[11,12] Very few peripheral ameloblastic fibroma cases exist in the literature. Kusama et al.,[6] reported 1 in the right lower premolar region of a 40-year-old woman in 1998. Darling et al.,[4] reported 1 in the maxillary posterior region of a 5-year-old girl in 2006. Abughazaleh et al.[5] reported 1 in the maxillary gingiva of the primary lateral tooth of a 3-year-old girl in 2008. Kalanteri et al.[9] described a peripheral variant of it in the anterior region of the mandible of a 54-year-old woman in 2016. In 2015, Langer et al.,[13] reported a case in a 2-week-old baby who had an intraosseous tumor in the maxillary anterior region as well as an extraosseous growth. In addition, a peripheral variant was reported in 2 case reports in the Japanese literature. In 1980, Nakamura et al.,[7] described a peripheral variant (epulis-like mass) in the posterior region of the mandible of a 2-year-old boy. In 1992, Harada et al.,[8] reported a congenital case in the mandibular molar gingiva of a 1-year-old girl. In the present case, the maxilla of a 46-year-old female patient had a peripheral variant. Contrary to central ameloblastic fibroma (which tends to develop in the mandible in the second decade of one's life), peripheral ameloblastic fibroma varies in terms of age and localization. There are congenital cases as well.

Central ameloblastic fibroma has a low recurrence rate, and patients can be treated using conservative surgery.[2] Conservative surgery was performed in this case similar to the previously reported peripheral variant cases. No recurrence was observed in the patient followed up for 3 years.

CONCLUSION

Physicians should consider ameloblastic fibroma in the differential diagnosis of gingival enlargement. Peripheral ameloblastic fibroma may differ from the central variant. Conservative surgery appears to be a sufficient method of treatment.

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