CASE REPORT
Olgu Sunumu

Correspondence address
Yazışma adresi

Sema KAYA
Yuzuncu Yıl University,
Faculty of Dentistry,
Department of Oral and
Maxillofacial Radiology,
Van, Turkiye
semakaya@yyu.edu.tr

Received : September 21, 2023
Geliş tarihi
Accepted : January 02, 2024
Kabul tarihi
Online published : April 30, 2024
E Yayın tarihi

Cite this article as
Bu makalede yapılacak atıf

Kaya S, Mizrak YR, Koc A.
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Akd Dent J 2024;3(1): 31-34

Sema KAYA
Yuzuncu Yıl University,
Faculty of Dentistry,
Department of Oral and
Maxillofacial Radiology,
Van, Turkiye

ORCID ID: 0000-0002-6306-3901

Yusuf Rodi MIZRAK
Yuzuncu Yıl University,
Faculty of Dentistry,
Department of Oral and
Maxillofacial Surgery,
Van, Turkiye

ORCID ID: 0000-0003-4245-3780

Alaettin KOC
Yuzuncu Yıl University,
Faculty of Dentistry,
Department of Oral and
Maxillofacial Radiology,
Van, Turkiye

ORCID ID: 0000-0001-9984-6900

Mucocele in the Posterior Mucogingival Region of Mandibula; a Rare Case Report

Mandibula Premolar Bölgede Mukosel; Nadir Bir Olgu Sunumu

ABSTRACT
Mucocele means a cavity filled with mucus. These lesions, which are the second most common soft tissue growth in the mouth, mostly originate from minor salivary glands. In this article, a case of rare mucocele in an atypical location is analyzed. A 30-year-old female patient was admitted to oral and maxillofacial radiology department. On examination, an asymptomatic lesion was detected in the right premolar region of the mandible, which was fluctuant on palpation and similar in color to the surrounding tissues. After surgical removal of the lesion, a diagnosis of mucocele was made after histopathologic examination. Mucoceles are frequently seen in the lower lip, they can rarely be observed in many areas of the intraoral region where the minor salivary glands are located. That mucoceles are rare because the premolar region is exposed to less trauma compared to other regions due to trauma etiology. As far as our knowledge goes, in literature reviews, there have been no reported cases of a developed mucocele specifically in the mandibular premolar region, especially in the mucogingival area.

Key Words
Mucocele, Oral mucosa, Premolar region.

ÖZ
Mukosel; içi mukus ile dolu olan kavite anlamına gelmektedir. Ağızda en çok görülen ikinci yumuşak doku büyümesi olan bu lezyonlar daha çok minör tükrük bezlerinden kaynaklanmaktadır. Bu makalede atipik bir bölgede gözlenen oldukça nadir görülen bir mukosel olgusu incelenmiştir. Kliniğimize başvuran 30 yaşındaki kadın hastanın yapılan muayenesinde mandibula sağ premolar bölgede palpasyonda flüktan çevre dokularla benzer renkte asemptomatik bir lezyon tespit edilmiştir. Lezyon cerrahi olarak çıkarıldıktan sonra histopatolojik inceleme sonucunda mukosel tanısı konmuştur. Mukoseller sıklıkla alt dudakta görülmesine rağmen nadirende olsa intraoral bölgede minör tükürük bezlerinin bulunduğu pek çok bölgede gözlenebilir. Travma etiyolojisine bağlı olarak premolar bölge diğer bölgelere göre daha az travmaya maruz kalmaktadır. Bu nedenle mandibula premolar bölgede mukoseller oldukça nadir görülür. Bilgimiz dahilinde; literatür taramalarında mandibula premolar bölgede, özellikle mukogingival alanda gelişmiş bir mukosel olgusuna rastlanmamıştır.

Anahtar Sözcükler
Mukosel, Oral mukoza, Premolar bölge

DOI: 10.62268/add.1364183

INTRODUCTION

Mucocele is a type of soft tissue lesion, which means a cavity filled with mucus in Latin (muco, mucus and coele = cavity) (1). More than 70% of mucoceles originate from the minor salivary glands. In addition, it is mostly localized in the lower lip (2). While mucoceles are seen in the oral cavity; they can also be seen in the paranasal region, gallbladder and appendix (3). In the oral cavity, these soft tissue lesions, mostly seen in the lower lip lateral to the midline; although rare, they can also be observed in the sublingual, buccal and hard palate regions (4).

Mucoceles are evaluated in two subgroups: extravasation type and retention type (5-6). There is no cyst wall surrounded by extravasation type epithelium. This type, which is evaluated in the pseudocyst group, occurs when the salivary gland ducts are ruptured as a result of trauma. Since the buccal and labial mucosa and the retromolar region mucosa are not covered with epithelium, the extravasation type is mostly seen in these regions (6). The retention type is seen less frequently than the extravation type and it is mostly observed in the elderly. It is more common in the upper lip, palatal region, floor of the mouth and maxillary sinus (5-6). The retention type occurs when mucus content accumulates in the canal or acini due to an obstruction in the mucous canal or sialolite (7).

While traumatic fibromas are the most common lesions in the oral cavity, mucoceles are the second most common lesions (8). They have clinical features such as soft, mostly fluctuating, painless swellings separated from the surrounding tissue on palpation (3). Mucoceles are seen equally in all ages and in both sexes (9). In this case report, aims to describe a previously unreported area of mucocele in the mandibular premolar region in terms of clinical and ultrasonographic features.

Case Report

A 30-year-old female patient applied to Van Yüzüncü Yıl University, Oral and Maxillofacial Radiology Department due to swelling in the apical region of the teeth located in the premolar region of the mandible. During the intraoral examination of the patient, in the mukogingival region of the right premolar area of the mandible, palpation revealed slight fluctuance with areas of similar coloration to surrounding tissues and occasional mild purplish discoloration (Fig. 1).

No caries or restoration was observed in the existing premolars and teeth responded positively to the electrical pulp test performed. In addition, extraoral examination revealed lymphadenomegaly in the submandibular lymph node. Panoramic radiographic image of the patient was examined, but no pathological finding was found (Fig. 2).

Figure 1. Intraoral image of the swelling in the mucogingival region of the patient's mandibular premolars.

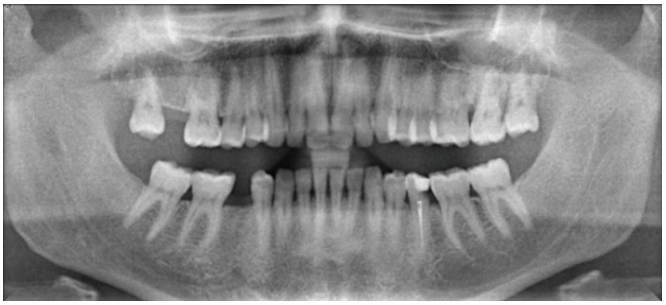

Figure 2. Panoramic radiography image of the patient.

In this case, a mucocele was observed for about two months, but growth rather than shrinkage was observed, but no spontaneous recovery was observed. Ultrasonographic examination was performed at Yüzüncü Yıl University Medical Faculty because of the soft tissue nature of the lesion. As a result of the examination, a hypoechoic area compatible with a cystic lesion of 15 X 8 mm in the relevant region was reported. After ultrasonographic evaluation; the entire lesion was enucleated with capsule in the Oral and Maxillofacial Surgery Department of Yüzüncü Yıl University Dentistry Faculty (Fig. 3).

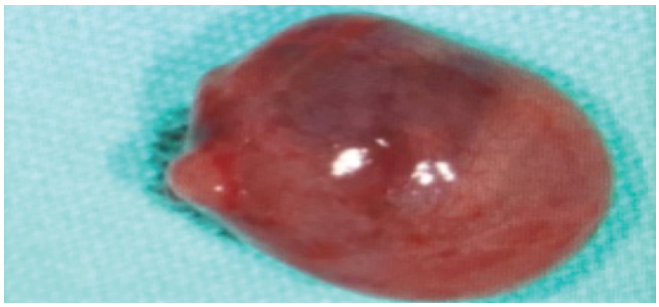

Figure 3. Image of the lesion surrounded by epithelium after surgical removal from the affected region.

The removed material was evaluated histopathologically. Histopathological examination revealed a clinically mucous retention cyst, characterized by beige-colored, cystic structures containing gelatinous material. Informed consent was obtained for the intraoral images and procedures.

DISCUSSION

Minor salivary glands are known to be present in many intraoral regions. Irritation or trauma of these glands for various reasons paves the way for the development of mucocele. In the literature review, no case of mucocele developed in the mandibular premolar region, especially in the mucogingival area, was found as we know. Re Cocconi *et al.* (7) evaluated 158 mucocele cases between 1994 and 2008 according to their localization and characteristics. It has been reported that 53% of the cases are located on the lower lip, 5% on the floor of the mouth, 4% on the cheek, 2% on the upper lip, and 1% on the palate. Although mucoceles are mostly seen in the lower lip, since it is the second most common lesion among the soft tissue lesions seen in the oral region, (8); clinical and ultrasonographic features of mucoceles should be kept in mind. Awareness of this issue will make it much easier for dentists to diagnose soft tissue lesions in the oral region. In addition, according to the literature review, no case of mucocele developed in the mandibular premolar region was found.

Mucoceles may also occur due to different etiological factors such as Graft Versus Host disease and Sjögren's Syndrome, apart from trauma, chronic biting and smoking. However, they can also be seen as complications after post-operative procedures (10). Srivastava *et al.* (11) mentioned that there are four different mechanisms of mucocele development in the maxillary sinus. The first of these is the inclination of the epithelium forming the sinus mucosa into the sinus connective tissue and growing by showing cystic development over time. Inclination of the stratified squamous epithelial tissue covering the gingiva at the mucogingival border into the underlying connective tissue and cystic degeneration may also explain the development of mucocele in this case. Also in this case, this patient was non-smoker; the site of the lesion has a low probability of being bitten and exposed to chronic trauma. The patient did not have any disease that could cause mucocele formation.

In addition, Saraç *et al.* (12) mentioned a case of mucocele developing in the extraction area after mandibular third molar tooth extraction. Trauma is a very effective factor in the etiology of mucocele cases. In addition, it has been thought that mouthwashes containing H_2O_2, washing solutions and some toothpastes may cause obstruction by irritating the canal openings (7). Therefore, mucocele may have developed as a result of traumatizing the existing area during the second premolar tooth extraction of this patient. In this case, it was observed that the patient's second premolar tooth was extracted and socket healing was completed.

The treatment of mucoceles is determined by the size of the lesion and its relationship with the surrounding anatomical formations. In the treatment; excision, electrosurgery, cauterization with lineoic acid or CO_2 laser vaporization treatments can be used (13).

Pandit and Park (14) reported that two pediatric ranula cases they examined decreased spontaneously without any procedure. Seo *et al.* (12) argued that ranula cases that did not shrink more than 2 cm even though the preoperative observation period exceeded three months would not heal spontaneously. In this case, a mucocele was observed for about two months, but growth rather than shrinkage was observed, but no spontaneous recovery was observed.
Since this proves the presence of minor salivary glands in many parts of the oral mucosa, mucoceles should also be considered as a differential diagnosis in lesions of this region.

Yazar Katkıları
Olgunun teşhis, tedavi ve takip aşamaları: S.K., Y.R.M., A.K.; Olgu raporunun yazılması ve düzenlenmesi: S.K., Y.R.M., A.K.; Son kontroller S.K., Y.R.M., A.K.

Hasta Onamı
Hastanın imzalamış olduğu aydınlatılmış onam formu mevcuttur.

Çıkar Çatışması
Herhangi bir çıkar çatışması yoktur.

Finansal Destek:
Finansal destek bildirmemektedir.

This case was presented as a poster at the Sivas Cumhuriyet University 1st International Dentistry Congress on 23-25 November 2021.

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