

**MASSIVE RESIDUAL ODONTOGENIC CYST DEVIATING NASAL AND
MAXILLARY SINUS FLOOR**
Nazal ve Maksiller Sinus Tabanını Deviye Eden Geniş Reziduel Odontojenik Kist

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Summary : Residual cysts are radicular (periapical) cysts those are inadvertently left behind after the extraction of a necrotic tooth. In this case report, we presented a massive residual odontogenic cyst that involved approximately half of maxilla and deviated the floor of the nasal cavity. Advanced imaging studies such as computed tomography and magnetic resonance imaging may be useful to evaluate the extension of the cyst and bone destruction.

Keywords: Residual cyst, odontogenic cyst

Özet: Reziduel kistler nekrotik diş çekimleri sonrası geriye kalan radiküler (periapikal) kistlerdir. Bu vaka raporunda maksillanın yaklaşık yarısını içeren ve nazal kavite tabanını deviye eden geniş reziduel odontojenik kist sunmaktayız. Bilgisayarlı tomografi ve manyetik rezonans görüntüleme gibi gelişmiş görüntüleme yöntemleri kistlerin genişliğini ve kemik destruksyonlarını değerlendirmede faydalı olabilmektedir.

Anahtar kelimeler: Rezidüel kist, odontojenik kist

INTRODUCTION

Residual cysts are radicular cysts those are inadvertently left behind after the extraction of a necrotic tooth. A residual cyst may develop from months to years after the initial extraction. If either a residual cyst or the original radicular cyst remains untreated, continued growth can cause significant bone resorption and weakening of the mandible or maxilla (1).

Compared to other odontogenic cysts, less attention has been paid to the residual cysts in the literature (2).

In this case report, we presented a massive residual odontogenic cyst that involved approximately half of maxilla and deviated the floor of the nasal cavity.

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CASE REPORT

A 44-year-old female patient was referred to our clinic with a large radiolucent lesion in the right maxilla which was diagnosed at routine dental examination. The patient's medical history was uneventful. The teeth in this area were extracted 10 years ago. Computed tomography (CT) scans and magnetic resonance images (MRI) revealed a large, well-defined, radiolucent expansive lytic lesion extending from the right maxilla to the midline. The lesion elevated the floors of maxillary sinus and nasal cavities cranially. Vestibular and crestal alveolar cortical bones were intact, and the palatal bone exhibited expansion without any destruction (Fig 1-2).

The lesion was enucleated intraorally under general anesthesia. Histopathological findings confirmed the diagnosis of a 'residual cyst'.

Healing was uneventful postoperatively for 3 months follow-up.

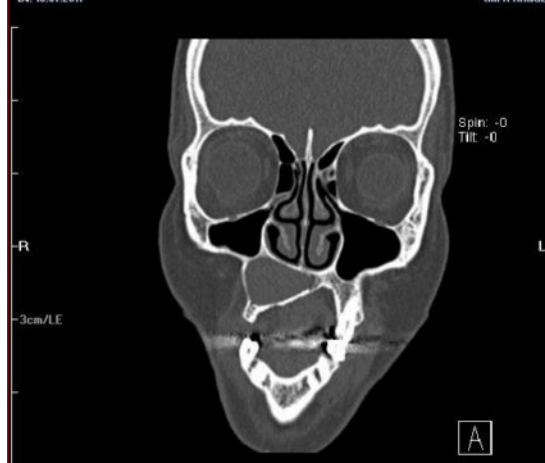


Figure 1. CT scan revealed a large, well-defined, radiolucent expansive lytic lesion ,elevated the nasal floor and maxillary sinus cranially.

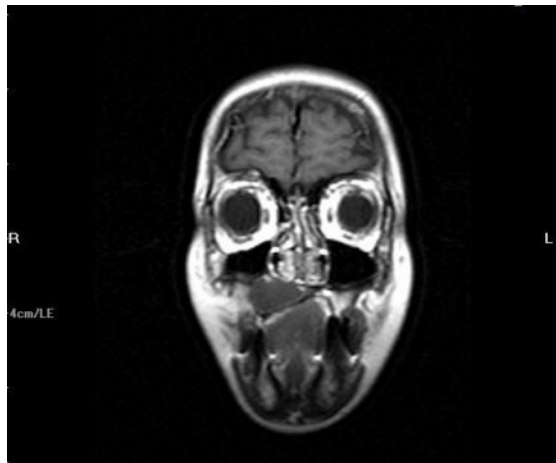


Figure 2. MR image revealed an expansile, well defined, cystic lesion in the right maxillary bone

DISCUSSION

Residual cysts are typically asymptomatic and are usually diagnosed on routine dental radiographs. The diagnosis relies on a combination of radiographic and histologic findings. A residual cyst presents as a well defined unilocular radiolucency in edentulous areas of the jaws (3). Our patient was incidentally diagnosed during routine dental examination, with a large cystic lesion in the maxilla without any pain, discomfort or esthetic prob-

lems. The history of extractions in the related region was compatible with a residual cyst. Although the lesion was large, its slow development and asymptomatic nature may have caused the patient not to seek for medical assistance.

The expansile nature of the cystic lesions can displace the related anatomical structures such as mandibular canal, the floor of maxillary sinus and the teeth. In the present case, the lesion pushed the floor of the nasal cavity superiorly to the left side

and the maxillary sinus floor superiorly. However, no destruction of bone cortices was encountered on the CT images.

Although cysts in the jaws are comparatively easy to diagnose on the basis of radiographic images, it is sometimes difficult to differentiate them from odontogenic tumors (4). Therefore, additional imaging techniques may be required to diagnose these cysts. MRI is a non-invasive method that offers excellent tissue contrast, and may therefore be useful to differentiate cysts from other possible lesions of the jaws. CT is also superior to conventional radiographies in differentiating cystic lesions from solid tumors or fibroosseous lesions. In our case, because the residual cyst showed extension into the maxillary sinus and nasal cavity, MRI and CT studies with 3D reconstruction were used to avoid inadvertent damage of important anatomical structures.

Marsupialisation or enucleation was proposed for the treatment of residual cysts (5). Marsupialisation is a two stage procedure and takes long time for bone to regenerate. Enucleation is preferable where the cortices of the lesion is intact and complete bone repair is usually seen in adequately treated residual cysts (1). In the case presented here, due to intact cortical lining, we enucleated the cyst. No bone grafting was performed to reconstruct the residual bone cavity.

Residual cysts may reach large dimensions in elderly adults who postpone the medical care, and finally may deviate the related anatomical structures, the nasal and maxillary sinus floors in the case of cysts occupying maxilla. Advanced imaging studies such as MRI and CT may be useful to evaluate the extension of the cyst and bone destruction, with the advantage of not damaging not to damage the vital organs.

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