

The Epidermoid Cyst Containing Free Teeth in The Maxillary Sinus

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Abstract

Epidermoid cysts (EC) are the most common tumors of the skin. They are usually asymptomatic and small-sized. They are more common at young ages. They grow slowly and are painless. The wall of EC is covered with epidermis-like epithelium. EC are rarely seen in sinuses. In our case, a 16-year-old female presented with complaints of swelling and headache that started from the left eye and extended to the upper lip. A biopsy was performed at another hospital of the patient who had previously received medical treatment but had no complaints. A cystic mass containing teeth was observed in the left maxillary sinus on imaging. The cystic mass was excised along with the wall. Pathological results supported the diagnosis of EC. Treatment of EC are surgical and recurrence rates are low. Although many masses are observed in the sinonasal region, epidermoid cysts are rare. It is important to distinguish epidermoid cysts from malignant masses that exhibit expansile growth characteristics.

Keywords: Headache, epidermoid cyst, maxillary sinus

INTRODUCTION

Epidermoid cysts, which are the most common tumors of the skin, are usually asymptomatic and small-sized. They originate from the skin and skin appendages. They are rarely observed in the sinonasal region (1). EC can cause frequent acute sinusitis attacks, headache, and facial swelling. EC may cause symptoms requiring to generate a differential diagnosis. Herein, we present the case of a patient with an epidermoid cyst containing teeth in the maxillary sinus.

CASE REPORT

A 16-year-old female patient presented at our outpatient clinic with complaints of facial swelling and headache that were present for 1 month. A swelling starting from the left orbita and extending to the upper lip was observed. The patient had previously received antibiotics, but there was no regression in complaints. In a different outpatient clinic, biopsy of the nasal cavity of the patient was performed under local anesthesia, and no malignancy was reported. In the nasal endoscopic examination, the mass was seen in the middle meatus, which pushed the uncinate process medially. The left middle meatus was edematous and hyperemic. The patient's paranasal sinus computed tomography (CT) image showed a cystic mass containing free teeth, with filling in the left maxillary sinus, thinning the sinus wall and extending into the ethmoid cells (Figure 1 a, b). Caldwell-Luc surgery with endoscopic sinus surgery was planned to excise the mass. The frontal wall of the maxillary sinus was eroded during the surgery, and fully developed teeth located in the sinus were removed. The patient was informed of the pathology result in accordance with diagnosis of epidermoid cyst. The patient had no complications during the postoperative period and was followed up.

Written informed consent was obtained from patient who participated in this case.

DISCUSSION

Epidermoid cysts are benign masses rarely seen in the maxillary sinus; they are ectodermal-origin benign neoplasms that may form anywhere in the body (1, 2). They might be caused by congenital, traumatic, or inflammatory reasons (3). Because EC are ectodermal in origin, so the skin and skin appendages originate from the ectoderm may observe in the cyst. Moreover, because they form anywhere in the body, they may lead to various symptoms based on the location. They can cause non-specific symptoms in the sinonasal region. Should symptoms occur, headache, facial swelling, and facial fullness are usually observed. Additionally, epidermoid cysts are commonly detected incidentally

Cite this article as: Taş BM, Şimşek G, Akay N, İnal M, Kılıç R. The Epidermoid Cyst Containing Free Teeth In The Maxillary Sinus. Eur J Rhinol Allergy 2018; 1: 56-7.

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Received: 29.09.2017

Accepted: 12.01.2018

DOI: 10.5152/ejra.2018.58087

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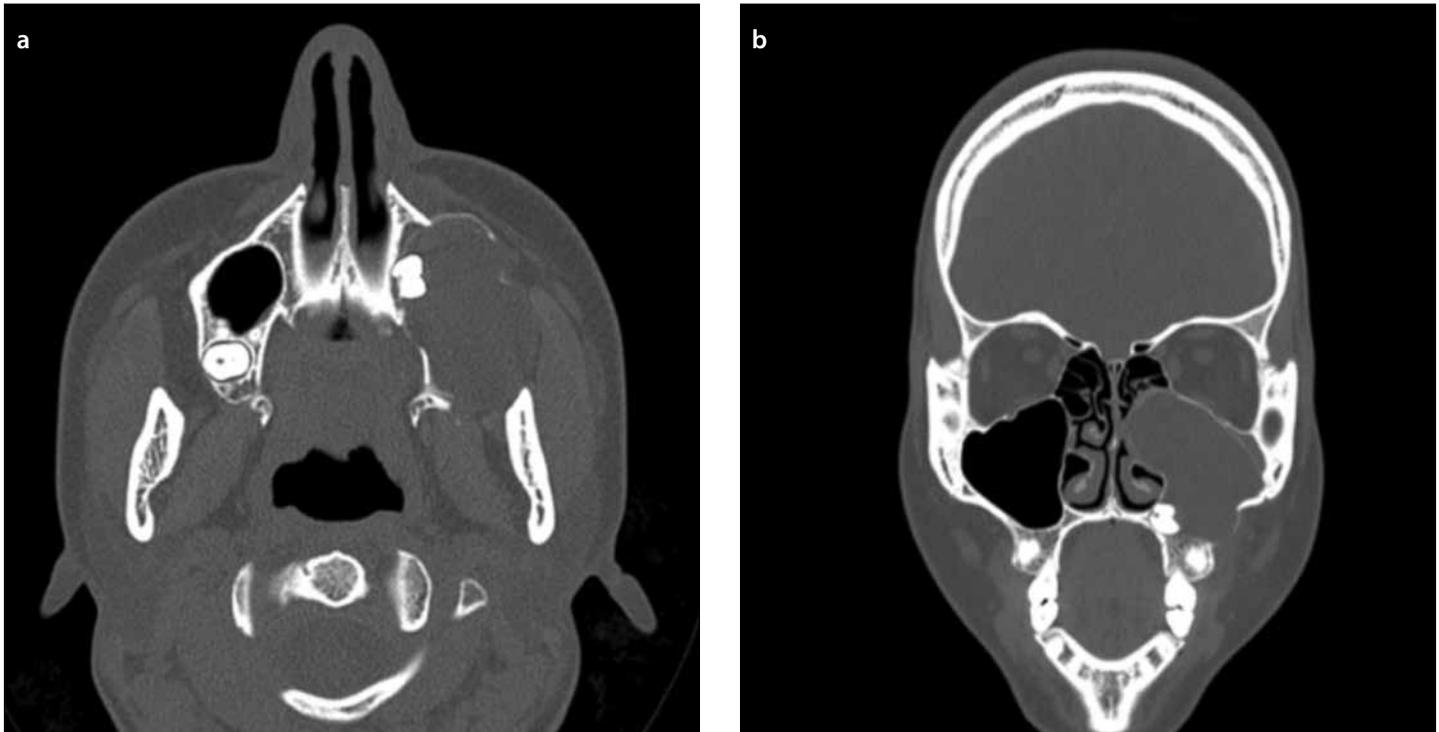


Figure 1. a, b. Patient's PNC CT sections on axial and coronal slices observing free teeth

(4). Because they are characterized by expansile growth, they may cause pushing and thinning of surrounding bone tissue.

Diagnosis is generally obtained using imaging techniques when there is suspicion about epidermoid cysts. Because they did not cause significant characteristic features and findings in anamnesis and physical examination and they are not to be considered in the differential diagnosis. CT or magnetic resonance imaging may be used as imaging techniques. Epidermoid cyst is observed as a hypodense mass in CT (5).

Malignancy should be considered in one-sided nasal masses. Biopsy should be performed before surgical intervention, and differentiation between benignity and malignancy should be made.

If the patient is to be treated surgically, the previous history, imaging methods and biopsy results should be known. Knowledge about the procedures performed on the patient and pathology results ensures that unnecessary procedures are avoided.

Surgical excision is the first option that should be considered for treatment. Excision should be done to remove the cyst totally. Despite complete excision, recurrence rates have been reported to be 8.3%-25% (6).

CONCLUSION

Epidermoid cysts are the most common cysts of the skin. Although EC are rare, they present symptoms in the sinonasal region. It is important to differentiate these masses from malignant tumors. It is crucial to completely excise the cyst during surgical treatment.

Informed Consent: Written informed consent was obtained from the patient who participated in this study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept - B.M.T.; Design - B.M.T.; Supervision - G.Ş., R.K.; Data Collection and/or Processing - M.İ., N.A.; Analysis and/or Interpretation - B.M.T., G.Ş.; Literature Search - B.M.T., G.Ş.; Writing Manuscript - B.M.T.; Critical Review - G.Ş., M.İ., R.K.

Conflict of Interest: The authors have no conflicts of interest to declare.

Financial Disclosure: The authors declared that this study has received no financial support.

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