

CHOLESTEROL GRANULOMA OF THE MAXILLARY SINUS

MAKSİLLER SİNÜS'ÜN KOLESTEROL GRANÜLOMASI

İsmet BAYRAMOĞLU, M.D., Hüseyin ERBUDAK*, M.D., Hatice BAYRAMOĞLU**, M.D.,
Gülşen ÖGMEN*, M.D., Ender DÜZCAN**, M.D.,

Gazi University, Faculty of Medicine, Department of Ear, Nose and Throat, Ankara-Turkey
Pamukkale University, Faculty of Medicine, Departments of Ear, Nose and Throat* and
Pathology**, Denizli-Turkey
Gazi Medical Journal 2002; 13: 195-197

SUMMARY: Cholesterol granulomas are frequently found in the middle ear and thyroid gland. Cholesterol granuloma of the maxillary sinus is seen rarely. In this study, we present a case of cholesterol granuloma of the maxillary sinus that was treated successfully with an endoscopic approach.

Key Words: Cholesterol Granuloma, Maxillary Sinus.

INTRODUCTION

Cholesterol granulomas are frequently found in the middle ear, mastoid cells and other parts of the temporal bone, but they have also been reported to be found in the paranasal sinuses (1-5). To our knowledge, a total of 27 cases have been reported in the literature.

REPORT OF CASE

A 49-year-old man was seen in our clinic complaining of headache, double vision and nasal obstruction. During physical examination, tympanosclerosis in the right tympanic membrane and an edema in the left middle turbinate were observed. X-ray in the Water's position showed an opacity in the left maxillary sinus. Computed tomography of the paranasal sinuses showed a soft tissue mass in the left maxillary sinus antrum, obliterating the osteomeatal complex, and bone destruction in the medial wall of the maxillary sinus (Fig. 1).

ÖZET : Kolesterol granülomlar sıklıkla orta kulak ve tiroid bezinde bulunurlar. Maksiller sinüsün kolesterol granüloması çok nadir görülür. Burada endoskopik olarak başarılı bir şekilde tedavi edilmiş bir maksiller granüloma olgusu sunulmaktadır.

Key Words: Kolesterol Granülom, Maksiller Sinüs.



Fig. 1: Coronal CT scan showing a soft tissue mass filling in the left maxillary sinus antrum.

Sinoscopy of the maxillary sinus through the canine fossa was performed under local anesthesia. A cystic mass containing a brownish

fluid was found and the fluid was suctioned. Intranasal endoscopic uncinectomy was performed and enlargement of the ostium of the maxillary sinus was accomplished. The remaining part of the wall of the cyst along with the granulation tissue were removed.

Histopathologic examination of the lesion showed cholesterol clefts with surrounding foreign body giant cell reaction and granulation tissue formation, plasma cells, lymphocytes and blood pigments. The diagnosis was cholesterol granuloma (Fig. 2).



Fig. 2: Cholesterol clefts and inflammatory reactions under respiratory epithelium (H&E x100).



Fig. 3: Patient several months postoperatively with complete clearing of the maxillary sinus.

The patient has been symptom free for 2

years. Computed tomography of the paranasal sinuses was obtained postoperatively (Fig. 3).

DISCUSSION

Cholesterol granuloma is a histological diagnosis showing granulation tissue, in which large numbers of cholesterol crystals and foreign body giant cells exist. It is commonly found in the cells of the mastoid bone and in the middle ear, but cholesterol granuloma of the maxillary sinus is an uncommon lesion. Only 27 cases of cholesterol granuloma of the maxillary sinus have been published in the medical literature (2).

Hemorrhage and poor ventilation are the most prominent mechanisms in the formation of cholesterol granuloma. The closed cavity contains blood and exudate, which play a significant role in the development of this pathology. The same reason may be valid for the maxillary antrum (3).

Cholesterol granuloma mimics chronic maxillary sinusitis in its signs, symptoms and radiological features; however, sinus bone destruction is not seen in chronic maxillary sinusitis. Its clinical and radiologic features often lead to the suspicion of neoplasia. The differential diagnosis of cholesterol granuloma includes mucocoeles, retention cysts, dental cysts and malignant tumors (4).

We treated our patient by functional endoscopic sinus surgery. The patient has remained symptom free for 2 years. The prime concept of functional endoscopic sinus surgery is the ventilation and drainage of paranasal sinuses, and so we recommend endoscopic sinus surgery in such cases because of mechanisms in the formation of cholesterol granuloma.

Correspondence to: İsmet BAYRAMOĞLU, M.D.
Konutkent Girişi Atakent Sitesi
No: 74
Çayyolu
06810 ANKARA - TÜRKİYE
Phone: 312 241 77 41
e-mail: ismetb@gazi.edu.tr

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