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DERMOID CYST OF MAXILLARY SINUS- AN UNDER REPORTED AND RARE CASE REPORT

Pathology

Shivani Sharma	Junior Resident, Department of Pathology, BRD Medical College Gorakhpur
Amit Kumar Gupta	Assistant Professor, Department of Pathology, BRD Medical College Gorakhpur
Vandana Sharma	Junior Resident, Department of Pathology, BRD Medical College Gorakhpur
Shilpa U Vahikar	Professor, Department of Pathology, BRD Medical College Gorakhpur.

ABSTRACT

Dermoid cyst, a rare benign entity involving maxillary sinus. Floor of mouth is the most commin site in oro-maxillofacial region. A 71 year female came with complaints of pus discharge from oral cavity , right cheek swelling associated with mild pain and gradually increasing in size which is refractory to medical treatment. Computed tomography scan reveals expansile heterogenously hypodense lesion encroaching maxillary sinus. Histopathological examination confirmed the diagnosis of dermoid cyst.

KEYWORDS

Maxillary Sinus, Dermoid Cyst

INTRODUCTION

Dermoid cyst, a benign cutaneous developmental anomaly occurring due to incomplete closure of the neural tube during third to fifth week of fetal development. It arises from entrapment of ectodermal elements along the lines of embryonic closure during embryological life or from implanted epithelium following trauma or sugery[1,2]. Dermoid cysts account for 1% to 2% of whole-body dermoids and 11% to 12% of head and neck dermoids .Dermoid cyst of head and neck are rare, accounting for only 7% of all such cysts[3]. Dermoid cyst can be found in any age group from newborn to old without any sex predilection .However ,four cases are reported in english literature. As per our research ,no case has been reported in India regarding dermoid cyst involving maxillary sinus.

Case Report

71 year female came with complaints of pus discharge from oral cavity since 2.5 months followed by right cheek swelling since 1.5 months which was associated with mild pain and gradually increasing in size. She has no history of any trauma ,ear discharge, tooth extraction or any systemic illness. No neurological deficit seen.

On per oral examination , oral hygiene was maintained ,no swelling or growth was appreciated. Computed tomography scan- PNS reveals expansile heterogenously hypodense lesion of fat attenuation in right maxillary sinus with few thin bands of soft tissue attenuation within. On contrast , no enhancement was observed .The lesions caused expansion and focal erosions of anterior, posterior, floor and medial wall of antrum. The lesion was termed as likely neoplastic etiology. Magnetic resonance imaging showed a heterogenously hyperintense lesion (T1 and T2) in right maxillary sinus. Posteriorly lesion was causing oblieration of pterygopalatine fosas. On fat suppressed images isotense bands were seen which showed no enhancement on post contrast study ; (figure 1).

Histopathological examination reveals stratified squamous epithelium with lamellated pools of keratin along with adnexal structures admixed with mixed inflammatory infiltrates suggestive of inflamed dermoid cyst ; (figure 2 and 3). For treatment, marsupialization was done endoscopically.

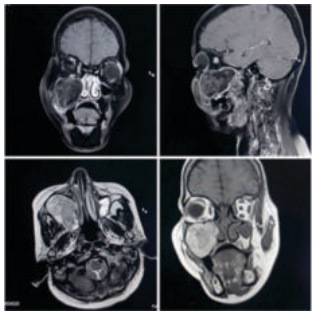

Figure 1: A and B of CT PNS Show Hypodense Lesion in Right Maxillary Sinus with no Enhancement in Contrast. Figure C and D of MRI Shows Hyperintense Lesion (T1 and T2) in Right Maxillary Sinus

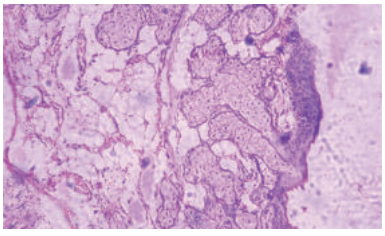

Figure 2 : H& E Section Shows Adipocytes, Sebaceous Glands and Stratified Squamous Epithelium.

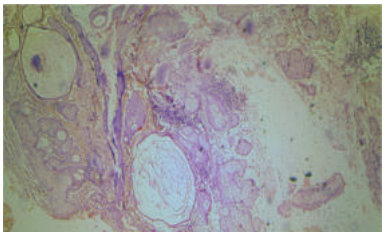

Figure3 : H& E Section Shows Cystic Cavity Containing Keratin Flakes.

DISCUSSION

Dermoid cysts are malformations lined by epidermis like epithelium, which contains dermal adnexal structures in the cyst wall. They are derived from epithelial rests that are included during midline union of the first and second branchial arches[4,5]. Mostly these cyst begin due to an embryonic accident during early stages of development but hardly noticed until their size causes annoyance. All dermoids are lined by epidermis. The contents of the cyst; dermoid if skin adnexures are involved or teratoid , if there are components from all three germinal layers[6].

Dermoid cyst in maxillary sinus is a very uncommon entity. Handfull of cases has been reported till date. Dermoid cyst is closely related histologically with epidermoid cyst which excludes adnexal structure involvement. Clinically these lesions are slowly growing and painless swelling. Dermoid and epidermoid cyst can masquerade each other in terms of clinical presentation as well as radiological examination.The differential diagnosis should include mucocele, odontogenic cysts, inverted papillon, antrochoanal polyp, fibrous dysplasia, sinonasal carcinoma and pseudocyst of maxillary sinus. Thus histopathological examination is highly recommended before definitive treatment.

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