Giant Mucocoele of the Maxillary Antrum: A Case Report

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Received: 1 April 2010 / Accepted: 6 June 2010 / Published online: 21 January 2011
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Abstract Maxillary antral mucocoeles have an incidence of only 3–10%. Mucocoeles are more commonly seen in the frontoethmoidal region. We present one such rare case of a 52-year-old lady who came to us with complaints of pain and swelling of the left cheek of 4 months duration. Clinical examination and investigation revealed a giant maxillary sinus mucocoele which was duly treated surgically. We discuss its classical presentation and management since such large mucocoeles are not often seen in the maxillary sinus.

Keywords Maxillary sinus · Mucocoele · Caldwell luc procedure

Introduction

Traditionally two-third of mucocoeles occurs in the frontal sinus and one-third in the ethmoid sinus. According to most authors, maxillary antral mucocoeles are extremely rare but a varying incidence from 3 to 10% has been reported [1].

Case Report

A 52-year-old lady presented with complaints of pain and swelling of left cheek of 4 months duration. Inspection revealed diffuse swelling of left cheek; on palpation, the swelling was firm, non tender and mobile. The overlying

skin was free. Examination of the oral cavity revealed a bulge of the left gingivobuccal sulcus.

CT scan of the osteomeatal complex showed a large homogenous mass expanding the left maxillary sinus and thinning out the medial and anterolateral walls (Fig. 1). The inferolateral wall was deficient but no distortion of the adjacent fat planes was noted. The mass was bulging into the nasal cavity. The figure also shows scalloping of the uncinate process and obliteration of the ethmoidal infundibulum by the mass.

A Caldwell Luc sinusectomy was performed. The anterolateral wall was dehiscant with the mucocoele wall just underneath the buccal mucosa (Fig. 2). On puncturing the anterior wall 20 ml of mucocoele fluid was drained out. All walls of the maxillary sinus appeared thinned out. A large middle meatal antrostomy was performed after exenterating the anterior ethmoidal cells. Histopathological report was consistent with the diagnosis of mucocoele.

Discussion

Clinically antral mucocoeles can present with bulging of the cheek, diplopia and dental problems. Though typically painless [2], cheek pressure or pain was the most common symptom in a series of 13 cases [3].

The CT appearance of mucocoeles was well described. The majority are homogenous, isodense with the brain [2] and typically show a rounded bony outline [4]. Most mucocoeles do not show contrast enhancement and in fact the administration of contrast medium is rarely necessary. Bony detail is an added advantage of CT [4]. An opaque maxillary sinus without bone erosion invites the diagnosis of sinusitis, retention cysts and antrochoanal polyps. With expansion and bone destruction, the differential diagnosis

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Fig. 1 Coronal CT scan showing antral mucocoele in a highly expanded thinned out maxillary antrum. The anterolateral walls show erosion but the adjacent fat planes on the cheek are well preserved

Fig. 2 Thinned out and eroded anterolateral wall of maxillary antrum

include malignant conditions like adenoid cystic carcinoma, plasmacytoma, rhabdomyosarcoma, lymphoma, schwannoma and tumours of dental origin [2].

Traditionally bone erosion is not associated with maxillary sinus mucocoeles. Our patient had thinning of all walls of maxillary antrum and had erosion of the inferior part of anterolateral wall of maxillary sinus where the wall of the mucocoele lay adjacent to the buccal mucosa without any intervening bone. We contend that a large mucocoele can cause bone erosion but the homogenous nature of the maxillary lesion along with preserved fat planes adjacent to the eroded bone reveal the benign nature of the disease.

The recommended treatment for maxillary sinus mucocoeles with no extension to soft tissues of the cheek is endoscopic evacuation with wide middle meatal antrostomy [5]. A Caldwell Luc approach may be needed for mucocoeles that have extended into facial soft tissues, pterygomaxillary fossa or those which have not been satisfactorily evacuated by endoscopic sinus surgery. Further mucocoeles resulting from facial trauma or previous surgery may be compartmentalized and less amenable for FESS [3].

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