

Large maxillary antral mucocele presenting with facial asymmetry

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Abstract

Maxillary antral mucoceles are extremely rare. We report a case of a large antral mucocele presenting with facial asymmetry. The CT scan was essential for delineating the extent of the lesion and aiding in the pre-operative diagnosis. The pathogenesis, clinical features and radiological aspects of this entity are reviewed.

Key words: Mucocele; Maxillary sinus.

Case report

A 55-year-old woman presented with a slowly growing painless swelling of the left cheek of three months duration. She also complained of intermittent headaches with partial nasal obstruction. On examination there was facial asymmetry with a hard swelling over the left maxilla. Intranasally the lateral nasal wall was medially displaced. There was bulging of the upper left gingivo-buccal sulcus and intra-orally of the hard palate with intact mucosa. Plain X-ray showed complete opacity of an

expanded left maxillary antrum. CT scan confirmed a large well-defined homogeneous mass causing considerable expansion of the left maxillary sinus with no bony destruction (Fig. 1). The mass was not enhanced after contrast and showed typical fluid density.

A Caldwell-Luc procedure with a large antrostomy in the inferior meatal wall was performed. A huge amount of typical mucocele thick yellowish fluid was drained. The post-operative course was uneventful. The patient was reviewed six months

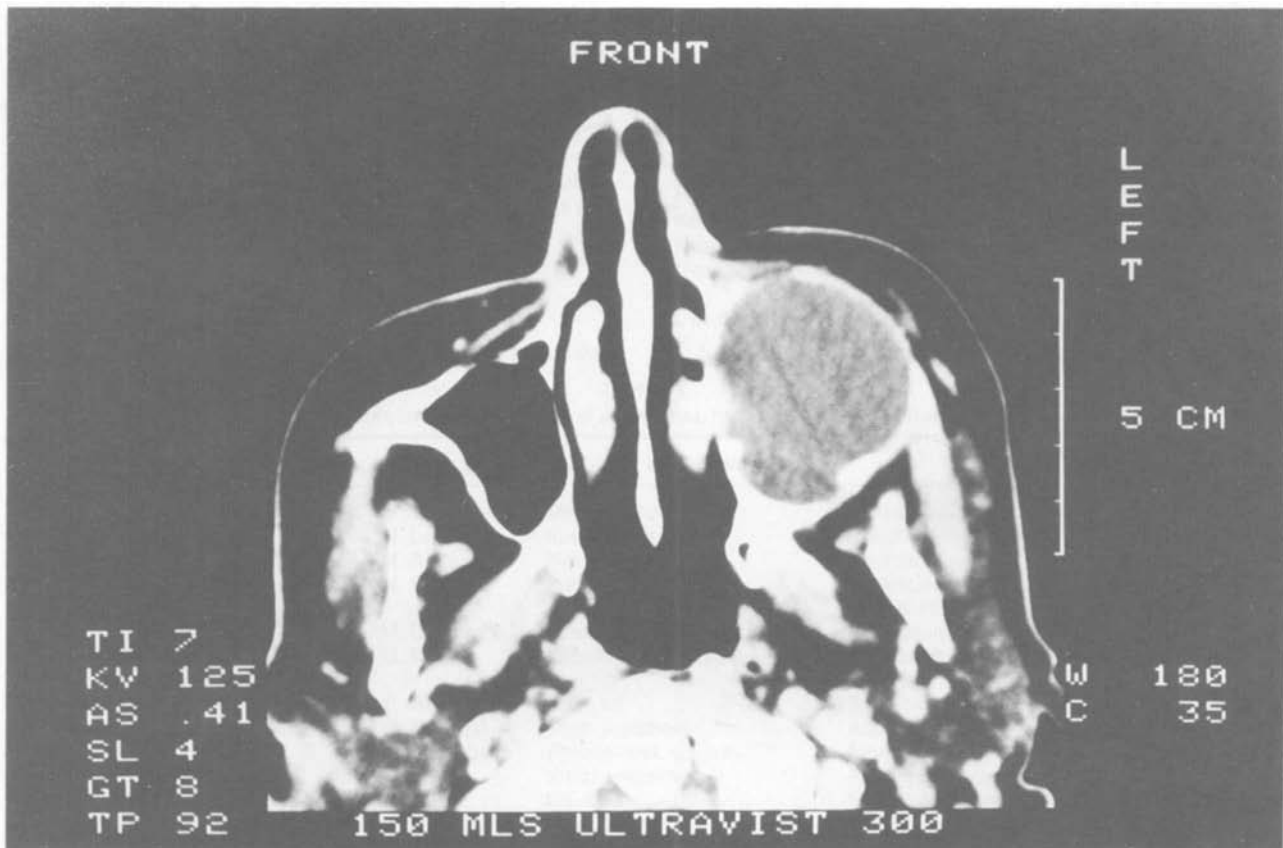


FIG.1

CT scan showing a well-defined homogeneous mass causing considerable expansion of the left maxillary sinus.

later with marked improvement in her symptoms. On examination there was no evidence of recurrence and the intranasal antrostomy was patent.

Discussion

Traditionally two-thirds of mucocoeles occur in the frontal sinuses and one-third in the ethmoid sinuses (Zizmor and Noyek, 1973). According to most authors, maxillary sinus mucocoeles are extremely rare, although a relatively high incidence (10 per cent) has been reported by Som and Shugar (1980b). Obstruction of the ostium in sinus mucocoeles may be the result of infection, trauma, previous surgery, tumour or cystic degeneration of the mucosa (Hyams, 1978). The sinus mucosa continues to secrete until the entire cavity is filled with mucoid elements with no remaining air. The continued secretion eventually results in expansion of the sinus and thinning of the bony walls. If left untreated, pressure necrosis of the bony walls can occur.

Clinically, antral mucocoeles usually present with painless bulging of the cheek. However, large mucocoeles can cause nasal obstruction, diplopia, dental problems and facial asymmetry (Mendelsohn *et al.*, 1984). Radiologically, these lesions appear as a completely clouded sinus with some expansion of the sinus walls. Although the contents are usually of homogeneous soft tissue density, five per cent of the cases demonstrate macrocalcifications (Zizmor and Noyek, 1973). The CT appearance of mucocoeles has been well described. The majority are homogeneous, isodense with brain and do not show contrast enhancement unless they are infected, where they enhance peripherally (Som and Shugar, 1980a). This typical appearance was well demonstrated in our case and was essential in choosing the surgical approach used for such a large mucocoele. In the absence of

bony erosion the differential diagnosis includes sinusitis, extensive polyposis and retention cysts. With expansion and bony destruction the differential diagnosis includes malignant conditions, e.g. adenoid cystic carcinoma, plasmocytoma, embryonal rhabdomyosarcoma, lymphoma, schwannoma and tumours of dental origin (Tadmor *et al.*, 1977).

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