Isolated Mucocele in an Infraorbital Ethmoidal-Haller Cell: A Unique Presentation

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ABSTRACT

Haller cell, was first described by 18th century Swiss anatomist Albrecht von Haller. Haller cells make up the posterior and superior wall of the ethmoid infundibulum. They can cause obstruction of ethmoid infundibulum after enlargement. Isolated infection of the Haller cell is usually very rare and should be suspected in patients with visual complaints or facial pain. Diagnosis can be made on radiology.

Here, we report a patient with complaints of left-sided eye pain for the last 4 months which was finally diagnosed as Haller cell mucocele and successfully managed via endoscopic marsupialization.

Keywords: Haller cell, Infraorbital ethmoidal cell, Mucocele.

INTRODUCTION

A pneumatized infraorbital ethmoid cell, also known as a Haller cell, was first described by 18th-century Swiss anatomist Albrecht von Haller. Haller cells make up the posterior and superior wall of the ethmoid infundibulum. When they enlarge, they can cause obstruction of the ethmoid infundibulum and lead to maxillary sinusitis. Isolated infection of the Haller cell is usually very rare and should be suspected in patients with visual complaints or facial pain. The diagnosis of a Haller cell may be difficult on endoscopy due to its location and can only be identified on radiology. We describe a rare case of isolated Haller cell mucocele.
thick, yellow pus (Fig. 3). Following the procedure the patient has remained symptom free for the past 24 months now.

**DISCUSSION**

Haller cell, presently called, orbitoethmoidal cell according to new terminology, was first described by a Swiss anatomist Albrecht von Haller. It arises as an extension of pneumatization of the ethmoidal cells; 88%, arising from the anterior and 12% from the posterior group. In our case, it seemed to be a part of the posterior ethmoidal group. Haller cell is not seen endoscopically due to its lateral location but can be identified on radiology. Inflammation of the Haller cell is common in ethmoidal and maxillary sinus infection but an isolated mucocele of this cell is very uncommon. One such case has been reported by Luxenberger W et al. A differential diagnosis of neuroma of the infraorbital nerve, cavernous hemangioma of the infraorbital canal or mucocele of the septated compartment of the maxillary sinus must be kept.

Mucoceles rising within the septated compartments in the maxillary sinus or in Haller cells will show a thin bony septum between the lesion and the normal maxillary sinus cavity on CT scans. They are usually located in the roof of the maxillary sinus as against extra-antral mucoceles which are usually found to arise from the floor of the sinus and push the floor of the antrum superiorly. Isolated infection of the Haller cell can cause headache and ocular pain. It can also block the ethmoidal infundibulum and cause maxillary sinusitis. A mucocele of the Haller cell can expand slowly, erode the roof of the maxillary sinus and extend into the orbital cavity. Expansion of the mucocele arising from posteriorly located Haller cell, when invading the orbit, can cause ophthalmological symptoms of proptosis, diplopia, ptosis, visual or oculomotor disturbances and pain in the eye. It is therefore important to identify and remove the them if symptomatic. A transnasal endoscopic approach is usually undertaken but visualization of the disease in the anterio most portion of the maxillary sinus, close to the infraorbital margin, may be difficult and access to the Haller cell may require a mini Caldwell Luc approach.

**REFERENCES**


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