Hypoplastic Maxillary Antra

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Background: Maxillary sinus hypoplasia is an uncommon pathology of the paranasal sinuses, which might be encountered in the clinical practice. Computed tomography scan confirms its existence and any associated anatomical anomaly and variations that might coexist.

Objective: To present three cases of maxillary sinus hypoplasia which were diagnosed and managed surgically.

Design: A Retrospective Study.

Setting: Otorhinolaryngology Department, Bahrain Defence Force Hospital, Bahrain.

Method: Three cases of maxillary sinus hypoplasia were managed from January 2012 to December 2015. The clinical presentation, radiological findings and surgical management of these patients were documented and found to be distinct from other cases.

Result: The first case was a fourteen-year-old male with long-standing nasal symptoms, which were not relieved by medical treatment. Sinus CT scan revealed an ill-defined infundibular passage and complete opacified small right maxillary sinus; CT was classified as hypoplasia type 2 according to Bolger et al and was successfully treated surgically.

The second case was a twenty-seven-year-old male with persistent left sided facial heaviness and left-sided headache. Sinus CT scan revealed left side normal uncinate process with well-defined infundibular passage indicating type 1 maxillary sinus hypoplasia.

The third case was a thirty-four-year-old pregnant female with diplopia and left-sided headache. MRI revealed left maxillary sinus and inferiorly displaced left orbital floor with non-homogenous fluid-like signal intensity suggesting marked left long-standing sinusitis. The patient was managed by an antral lavage under local anesthesia. After delivery, she was reassessed by CT scan of the sinuses, which revealed left side small sized partial opacified type 2 maxillary sinus hypoplasia.

Conclusion: Symptomatic maxillary sinus hypoplasia patients with a diseased blocked ostiomeatal complex have special diagnostic considerations and therapeutic challenges.

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