CASE REPORT

A CASE REPORT ON UNILATERAL CHOANAL ATRESIA

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ABSTRACT: Unilateral choanal atresia usually presents later in life than bilateral and may present in adults. Here is a case report of a 37 year old lady who presented to the ENT OPD of our tertiary care hospital with complains not clearly pointing to the diagnosis. The role of CT scan and nasal endoscopy in the diagnosis and treatment has been stressed.

INTRODUCTION: Choanal atresia is an uncommon and rarely recognised cause of unilateral nasal obstruction. This case report documents the case of a patient with unilateral choanal atresia who remained undiagnosed for many years. There was no concerned investigation report of a case presenting so late in the literature till date.

CASE REPORT: A 37 year old woman presented with a prolonged history of profuse clear mucoid discharge from her right nostril with complete nasal obstruction on right side. She also complained of loss of sense of smell on right side since childhood with associated features of mouth breathing and snoring. On examination she had slight facial asymmetry with the dorsum slightly deviated to left (Fig. I).

The right nostril was completely blocked which was confirmed by cold spatula test/catheter test. Blood investigations showed normal blood count and ESR. normal serum IgE level and absolute eosinophil count.

On anterior rhinoscopy mucosa was found to be healthy with a blob of mucous on the floor of nose in the right nasal cavity and nasal septum deviated towards left. Right nasal cavity was found to be very roomy. The above findings were confirmed by nasal endoscopy, further the Eustachian tube opening and choana could not be visualised as endoscope could not be advanced posteriorly because of obstruction.

Computed tomography coronal cuts (Fig. II) elicited bony atresia with prolapsed mucosal thickening at the right choana with left deviated nasal septum with left choana normal.

Patient was posted for transnasal surgery. The choanal atresia was found to be of bony type. It was perforated and enlarged. A Foleys tube was inserted for two weeks to maintain the patency and anterior nasal packing was done. Antibiotics, anti inflammatory, decongestants, nasal spray and proper nasal toileting was advised and the patient made an uneventful post operative recovery.

DISCUSSION: Choanal atresia is a congenital obstruction of posterior nasal aperture or choana which is due to persistence of buccopharyngeal membrane and may be bony, membranous or mixed. Original reports suggested a 90% bony stenosis and 10% membranous, but more recent analysis suggests a mixed bony/membranous in 70% and pure bony in 30%.

Unilateral or bilateral choanal atresia was first described by Roederer in 1751 and was first reported in Britain in 1881 by Ronaldson 2. Carl Emmert in Bern operated successfully on a patient of choanal atresia in 1851. He perforated the bilateral choanal atresia via the transnasal approach

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using a curved trocar after having practiced the perforating force on the hard palate of child's corpse. Bilateral choanal atresia presents at birth as a respiratory emergency. Occasionally unilateral choanal atresia may present in young with feeding difficulties especially when the non affected side of the face is occluded. Unilateral cases do not present until late childhood or adulthood.

The reported incidence of choanal atresia varies in between 1/5000 to 1/9000 reflecting the lack of recognition of this malformation. It affects woman more than men, ratio being 2:1, there are three unilateral cases of choanal atresia for every two bilateral cases. Bony atresia is far more common than membranous accounting for 90% of reported cases. Unilateral choanal atresia accounts for 65% of the cases while bilateral for rest 35% of cases. Unilateral choanal atresia is more common on right side.

Choanal atresia can be an isolated anomaly, however 60% cases of congenital defect has found to be associated with Down's and Treacher Collins syndrome but may be found with other isolated defects such as micrognathia, tracheoesophageal fistula, cleft and high arched palate, missing teeth and facial cleft. In addition to these random associations choanal atresia has recently been linked with a number of specific defects the so called CHARGE association. In conclusion our reported case highlighted the fact that choanal atresia especially unilateral is a rarely recognised cause of nasal obstruction and is often diagnosed late. Hence endoscopic/radiological investigations are mandatory to make a diagnosis for complaints of persistent nasal obstruction for so many years.

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CT SCAN OF UNILATERAL CHOANAL ATRESIA

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