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# UNILATERAL CHOANAL ATRESIA- TRANS-NASAL ENDOSCOPIC ATRESIA REPAIR

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**Kirankumar Gunadal*** Senior Resident *Corresponding Author

**Shashidhar S Suligavi** Professor

## ABSTRACT

**Introduction:** Choanal atresia is a rare but potentially life-threatening condition characterized by the congenital closure of the posterior choana, resulting from the persistence of the buccopharyngeal membrane Presented with unilateral or bilateral nasal obstruction and nasal discharge. **Case Report:** A 14-year-old female child had presented with right-side nasal obstruction since childhood without any prior history of nose trauma or surgery. Upon investigation with diagnostic nasal endoscopy and CT nose and pns, it was found to be bony choanal atresia. Further management involved trans nasal endoscopic repair, which included the removal of the posterior bony septum. **Conclusion:** The trans nasal endoscopic approach was found to be reliable, with numerous advantages, including excellent visualization of the choana, the ability to widen the choana with a high success rate, less operative time, and patient compliance in terms of fewer complications and a faster recovery.

## KEYWORDS

Choana, Trans-nasal, Atresia Repair.

## INTRODUCTION

Choanal atresia is a life threatening but relatively uncommon anomaly involving congenital obliteration of posterior choana.[1]

Congenital choanal atresia relatively rare with an incidence 1 in 7000 births with majority being the mixed bony-membranous type.[2]

Most common presenting symptom is nasal obstruction which might be unilateral or bilateral, bilateral obstruction in child is life threatening so immediate surgical correction is necessary, whereas unilateral presentation can be delayed till child become 5-6 years of age.

### Case Study

A 14yr old female child presented with complaints of right sided(U/L) nasal block since childhood. associated with mouth breathing history, no history of trauma/previous nasal surgery.

### On Clinical Examination

On Anterior rhinoscopy shows C-shaped deviated nasal septum towards Right with left inferior turbinate hypertrophy.

Cold spatula test – Absent misting on Right side. On diagnostic nasal endoscopy (0 degree) - Right side choanal atresia noted.

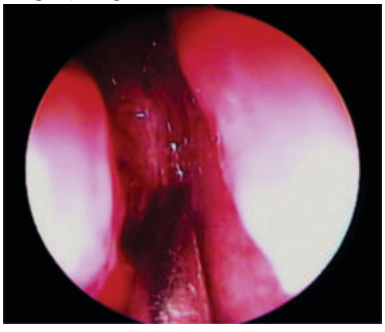

**Fig.1- On 0-Degree Endoscopy Atresia Noted on Right Side**

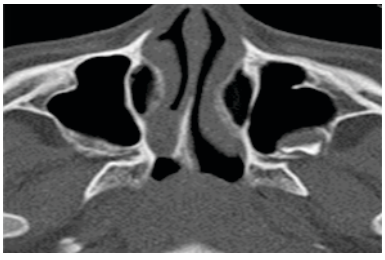

**Fig 2 - Bony Narrowing of Right Posterior Nasal Cavity With a Posterior Mucosal Thickening of Membrane, Consistent with Right Choanal Atresia.**

### Management

Under general anaesthesia, Using 0'degree endoscope Right choanal atresia visualised.

Left side inferiorly based Hadad flap and right side superiorly based Hadad flap raised from septum. Bony cartilaginous junction disarticulated and posterior bony part removed. Bony projection from sphenoid drilled out, Flaps repositioned over bony edges, surgicel placed and bilateral Anterior nasal packing done

## DISCUSSION

Choanal atresia is a congenital obstruction of the posterior nose or choana which is due to persistence of the buccopharyngeal membrane and may be bony or membranous, unilateral or bilateral.[4]

Bilateral choanal atresia produces severe, life-threatening symptomatology, primarily related to airway obstruction. In contrast, soon after birth, the symptomatology of unilateral choanal atresia has been described as much less severe. Others have described unilateral choanal atresia primarily as a disease of later childhood, since the symptomatology may not become evident for many years.[3]

Several techniques have been reported for the treatment of CA, of which the most commonly used are endoscopic trans-nasal, transseptal, and trans-palatal.[1]

Until recently, the ideal surgical modality to obtain result was the trans-palatal repair, With the advent of telescopic instrumentation which provides excellent illumination and magnification, the ability to repair choanal atresia through a trans-nasal endoscopic approach with direct endoscopic visualization has become a viable and very successful alternative.[3] in failure.

## CONCLUSIONS

Trans-nasal Endoscopic approach for choanal atresia repair was found to be reliable, as well as with numerous advantages including excellent visualization of posterior choana. Ability to wide open the choana with high success rate, less operative time, more patient's compliance in terms of less complications associated with this procedure, and faster recovery rate.

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