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CONGENITAL BILATERAL CHOANAL ATRESIA

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ABSTRACT

Background: Congenital choanal atresia is an anomaly that causes upper airway obstruction in newborns with a frequency of 1 in 7000 live births. Bilateral atresia is an emergency and immediate maintenance of airway and relieving the obstruction is essential to avoid cyanosis and subsequent death. **Case Report** : A 2.6 kg full term male child born to a gravida 1 para 1 mother by normal vaginal delivery with APGAR SCORE 8 and 9 at 1 and 5 minutes was brought to the emergency with respiratory distress and cyclical cyanosis relieved on crying , aggravated on taking feeds and falling asleep with closed mouth .O/E : Respiratory Rate -49 breaths per minute and required mouth airway with face mask to maintain oxygen saturation upto 95% with oxygen.Diagnosis was established clinically by failure to pass size 5 F nasogastric tube from nostril, nasal cavity to pharynx. Diagnostic nasal endoscopy revealed absence of choana and covered with atretic plate. CT NOSE AND PNS shows complete bony choanal atresia.Child was managed with surgical recanalization. **Conclusion** : Bilateral choanal atresia is a medical and surgical emergency. CT not only confirms the diagnosis but defines the extent and type of atresia and helps in deciding surgical approach.

KEYWORDS

Case Report

A 2.4KG full term female child born to a gravida 2 para 2 mother by normal vaginal delivery with APGAR Score 8 and 9 at 1 &5 minutes was brought to the emergency with respiratory distress and cyclical cyanosis relieved on crying, aggravated on taking feeds and falling asleep with closed mouth .On examination , the respiratory rate was 49 breaths /minute and required mouth airway with face mask to maintain oxygen saturation upto 95% with oxygen . The cardiac and other systemic examination was normal.

Diagnosis

Clinically , by failure to pass size 5 F nasogastric tube from nostril ,nasal cavity to pharynx. Diagnostic nasal endoscopy was done and revealed absence of choana & covered with atretic plate .CT scan of nose and paranasal sinuses was done which showed complete bony choanal atresia. patient was planned for surgical recanalization.

Surgical Procedure

Decongestion of nasal cavity was done
↓
under GA 2.7 mm 0 degree endoscope is passed
↓
mucosa over choana is removed and opening made with metallic suction
↓
opening is further widened by diamond burr
↓
nasal cavity is stented with 3.5mm endotracheal tube
↓
anteriorly stay suture is applied with prolene,
↓
post operatively, regular nasal saline drops instillation and suctioning was done

DISCUSSION

1. Congenital bilateral choanal atresia is a rare disorder in which there is lack of communication between nasal cavity and oropharynx.
2. The blockage may be membranous ,bony , mixed (70%)
3. It is due to persistence of embryonic nasobuccal membrane.
4. Choanal atresia can occur in isolation but it can also be associated with CHARGE SYNDROME
5. Various surgical approaches for opening posterior choana are transseptal , transpalatal, endoscopic transnasal approaches.
6. Endoscopic transnasal approach is considered better due to minimal invasion and blood loss ,excellent visualization ,access , high success rate with less recovery period and morbidity.

CONCLUSION

Bilateral congenital choanal atresia is a medical and surgical emergency .CT scan of nasal cavity and nasopharynx not only confirms the diagnosis, but defines the extent and type of atresia &helps in deciding surgical approaches.

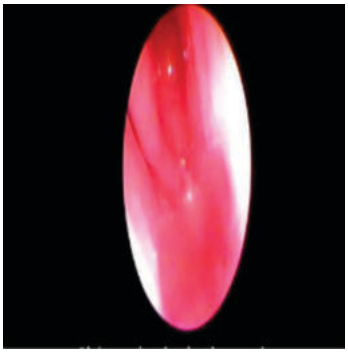

Figure 1 -DNE

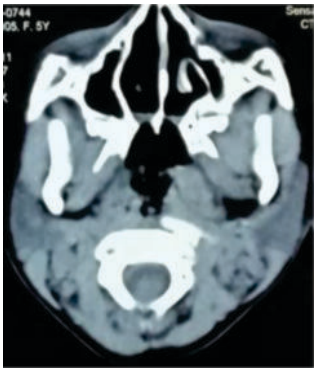

Figure 2 -CT PNS

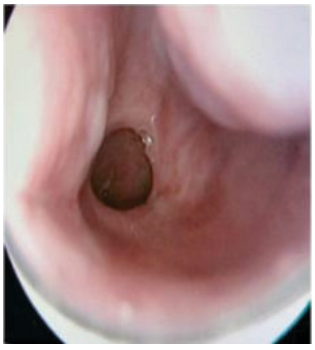

Figure 3- POSTOP

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