

CLINICAL PRACTICE GUIDELINE

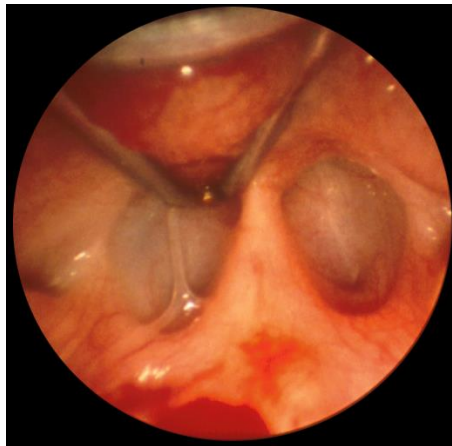
Guideline coverage includes NICU KEMH, NICU PCH and NETS WA

Choanal Atresia

This document should be read in conjunction with the [Disclaimer](#)

Choanal Atresia is a congenital abnormality where there is failure of canalization of the buconasal membrane. This can be either unilateral or bilateral and is usually due to a combination of bone and soft tissue. It occurs in 1:5000 to 1:8000 births. Unilateral atresia is more common and it is more common in females.

CHARGE Syndrome or other congenital abnormalities are present in 50% of patients with bilateral choanal atresia.



Presentation

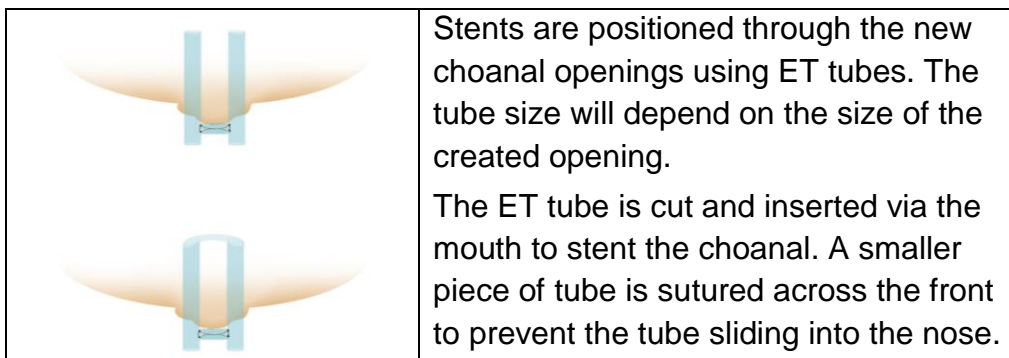
Bilateral choanal atresia is a relatively rare anomaly of the upper airway. As neonates are obligatory nasal breathers presentation may be life threatening respiratory distress, retractions and paradoxical cyanotic episodes which are relieved by crying as the infant begins to mouth breathe. It is not possible to pass a nasogastric tube through the nares and choanae. Unilateral choanal atresia does not usually produce severe symptoms.

Initial Management

- Oropharyngeal airway.
- Oral intubation in severe cases.
- ENT consultation.
- CT scan.
- Investigate for CHARGE syndrome: genetic consult and examination for, coloboma of the eyes, ear anomalies, hearing screening, genital hypoplasia, karyotype and CDH7 mutation studies, genetic consult, renal ultrasound.
- Surgery, either transnasal or transpalatal to remove the bone and soft tissue.

Pre-Operative

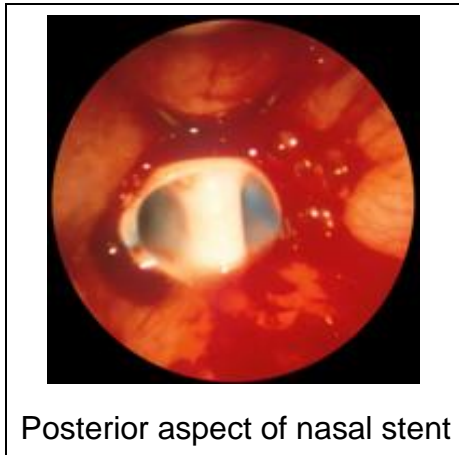
- Nurse prone.
- Secure Guedel airway using brown tape with central hole cut to diameter of airway.
- Suction airway 2 to 4 hourly as required.
- Remove Guedel airway once per shift and replace with new airway (disposable, single use).
- Orogastric tube feed only if on enteral feeds, usually NBM pre op with full intravenous fluids.



Post-Operative Care

- Stents require 1 to 2 hourly suction for the first 48 hours to maintain patency, then pre feed and prn. The size of the suction catheter used will depend on the size of the stent. It is very important to check the post op orders carefully for instructions regarding stent care and suction. Each surgeon will have their own preference for stent care & management.
- Normal saline is instilled into each stent prior to suction using a blunt cannula in 0.2 mL increments. The suction catheter should then be inserted as stated by the ENT surgeon (usually 6cm), check the post op notes.
 - A tape measure cut to the correct length should be taped to the warmer or cot for visible confirmation of catheter length.
 - Gentle suction with size 6 suction catheter around the stents should also be applied.
- Stent patency is checked by
 - auscultation with stethoscope and or
 - by placing a mirror near the nose and observe misting on expiration through the stents.
- During hospitalisation the infant requires continuous saturation monitoring.
- Stents are normally left in situ for 6 weeks then removed by the surgeon and patency observed via endoscope.

- Suck feeds can commence when the infant is stable and able to tolerate. OGT feeds are given as needed.



Discharge Planning

Home management is often difficult due to stent blockage.

Discharge home at ENT discretion. Early discharge encouraged with home support.

- Parent education including signs of obstruction and suctioning of stents and infant CPR.
- Home suction unit (hired through the PCH ECS).
- Supply of suction catheters, saline and syringes and referral to PCH ECS for ongoing supplies.
- Home monitor.
- Home visiting follow up (HiTH or GP and community nurse).

Follow Up

ENT follow-up to be arranged.

References

1. Ramsden, J.D. and Campisi, P. Choanal Atresia and Choanal Stenosis. *Otolaryngol Clin N Am* 42(2009) 339-352.
2. Personal Communication: Mr Shyan Vijayasekaran FRACS. Otolaryngologist Head and Neck Surgeon. Clinical Associate Professor UWA

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