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Choanal atresia

Choanal atresia is a narrowing or blockage of the nasal airway by tissue. It is a congenital condition, meaning it is present at birth.

Causes

The cause of choanal atresia is unknown. It is thought to occur when the thin tissue separating the nose and mouth area during fetal development remains after birth.

The condition is the most common nasal abnormality in newborn infants. Females get this condition about twice as often as males. More than half of affected infants also have other congenital problems.

Choanal atresia is most often diagnosed shortly after birth while the infant is still in the hospital.

Symptoms

Newborns generally prefer to breathe through their nose. Typically, infants only breathe through their mouths when they cry. Babies with choanal atresia have difficulty breathing unless they are crying.

Choanal atresia may affect one or both sides of the nasal airway. Choanal atresia blocking both sides of the nose causes acute breathing problems with bluish discoloration and breathing failure. Such infants may need resuscitation at delivery. More than one half of infants have a blockage on only one side, which causes less severe problems.

Symptoms include:

- Chest retracts unless the child is breathing through mouth or crying.
- Difficulty breathing following birth, which may result in cyanosis (bluish discoloration), unless infant is crying.
- Inability to nurse and breathe at same time.
- Inability to pass a catheter through each side of the nose into the throat.
- Persistent one-sided nasal blockage or discharge.

Exams and Tests

A physical exam may show an obstruction of the nose.

Tests that may be done include:

- CT scan
- Endoscopy of the nose
- Sinus x-ray

Treatment

The immediate concern is to resuscitate the baby if necessary. An airway may need to be placed so that the infant can breathe. In some cases, intubation may be needed.

An infant can learn to mouth breathe, which can delay the need for immediate surgery.

Surgery to remove the obstruction cures the problem. Surgery may be delayed if the infant can tolerate mouth breathing. The surgery may be done through the nose (transnasal) or through the mouth (transpalatal).

Outlook (Prognosis)

Full recovery is expected.

Possible Complications

Possible complications include:

- Aspiration while feeding and attempting to breathe through the mouth
- Respiratory arrest
- Renarrowing of the area after surgery

When to Contact a Medical Professional

Choanal atresia, especially when it affects both sides, is generally diagnosed shortly after birth while the infant is still in the hospital. One-sided atresia may not cause symptoms, and the infant may be sent home without a diagnosis.

If your infant has any of the problems listed here, consult your health care provider. The child may need to be checked by an ear, nose, and throat (ENT) specialist.

Prevention

There is no known prevention.

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Updated by: Josef Shargorodsky, MD, MPH, Johns Hopkins University School of Medicine, Baltimore, MD. Also reviewed by David C. Dugdale, MD, Medical Director, Brenda Conaway, Editorial Director, and the A.D.A.M. Editorial team.

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