Nasal congestion and the paediatric patient

Steyn L, BPharm

Prof Nurs Today 2016;20(3):28-29

Introduction

A blocked "stuffy" nose has a considerable negative impact on the quality of life of both parent and child. However, it has a considerable negative impact on the quality of life of both the parent and child. Infants with blocked noses struggle to breathe while feeding, and young children are unable to blow their noses properly to ease their discomfort. Infants and children with a blocked nose have difficulty sleeping at night too. Parents often seek help on how to clear their child's nose. The focus of this article is how to ease the discomfort of a blocked nose in a child until the condition resolves.

What causes a blocked nose in children?

Swelling of the blood vessels that line the nose causes it to become congested, thereby reducing airflow. Reasons why the blood vessels swell include:

- An upper respiratory infection, e.g. a common cold, flu and sinusitis
- Allergies, e.g. hay fever
- Non-allergic rhinitis.

Blocked, stuffy noses due to the common cold, flu and sinusitis usually resolve within a week to 10 days. Blocked noses lasting longer than 10–14 days may be due to a chronic condition, e.g. an allergy or a bacterial infection. The child should be referred to a doctor for further evaluation.

Treatment options

Saline nasal drops or spray

Various saline preparations are readily available in the pharmacy. The use of drops in infants and toddlers, and the spray in older children, helps to moisten the crusts and thins the mucus that forms in the nasal passages.

Mucus in infants can be removed by using a bulb syringe. It is essential that the bulb syringe used has been made specifically for an infant's nose. It is advisable to wait a little while after instilling one or two drops of saline in the nostrils. The bulb syringe should be squeezed to remove the air, and the tip of the bulb gently inserted into the baby's nostril and then released. This draws the mucus into the bulb, and it can then be squeezed out into a tissue. The bulb syringe can be washed in warm, soapy water and rinsed well. This procedure should be repeated several times a day, especially before feeds, to help the infant to breathe.

Cool mist humidifiers

Humidified air may improve nasal congestion. It is important that the cool mist humidifier is cleaned and disinfected every day. Warm air humidifiers should not be used as they cause swelling of the blood vessels in the nose.

Adequate hydration

It is important to ensure that the child remains adequately hydrated.

Topical decongestants

Various topical paediatric nasal decongestants are available, e.g. oxymetazoline, xylometazoline, naphazoline and phenylephrine. Oxymetazoline 0.01% drops have been approved for use in infants aged 1–12 months in South Africa. It is always best to refer to a specific manufacturer's recommendations regarding the appropriate age and dosage interval before recommending a particular product.

While these preparations may provide symptomatic relief of congestion, prolonged use is associated with rebound congestion. Rebound congestion occurs within three days of use, but may be avoided by limiting the use of nasal decongestants to a maximum of 4–5 days.

Oral decongestants

A large variety of oral treatment options for children with blocked noses are displayed on the pharmacy shelves. OTC oral antihistamines and decongestants have not been shown to be of any benefit to children. These medications may be harmful, especially in infants under 2 years of age. Currently, oral medication containing pseudoephedrine, ephedrine or phenylephrine (with or without antihistamines) for infants under 2 years of age, has been removed from the shelves of pharmacies in the USA. Manufacturers in the USA have also recommended that these products should not be used in children under 4 years of age.

Careful consideration of the child's age and current medication should be taken into account when making a recommendation.

Conclusion

Nasal congestion in infants and children may lead to complications affecting the ears and sinuses. Relief may be obtained through supportive measures, such as saline drops or sprays and cool mist humidifiers. It has not been proved that oral decongestants are of any benefit to children, and should be avoided because of potential adverse effects. A child must be referred to a doctor if his or her nasal congestion does not resolve or deteriorates within 14 days, if the child develops a fever lasting for ≥ 3 days, develops ear pain, has breathing difficulties or refuses to drink. Regardless of any other symptoms, all infants under 3 months of age who develop a fever should immediately be referred to a doctor.

Bibliography

1. Hardjojo A, Shek L, van Bever H, Lee B. Rhinitis in children less than 6 years of age: current knowledge and challenges. Asia Pac Allergy. 2011;1(3):115–122.
2. Pray WS. Treating congestion in children's summer colds. Medscape [homepage on the Internet]. 2002. c2015. Available from: http://www.medscape.com/viewarticle/438730_3
3. Stuffy or runny nose – children. MedlinePlus [homepage on the Internet]. 2013. c2016. Available from: https://www.nlm.nih.gov/medlineplus/ency/article/003051.htm
4. Stewart M, Ferguson BJ, Fromer L. Epidemiology and burden of nasal congestion. Int J Gen Med. 2010;3:37–45.
5. Pappas DE. The common cold in children (Beyond the Basics). UpToDate [homepage on the Internet]. 2016. Available from: http://www.uptodate.com/contents/the-common-cold-in-children-beyond-the-basics
6. Green RJ, Hockman M, Vardas E, et al. Allergic rhinitis in South Africa: 2012 guidelines. S Afr Med J. 2012;102(8):693–696.
7. US. Food and Drug Administration. An important FDA reminder for parents: do not give infants cough and cold products designed for older children. FDA [homepage on the Internet]. 2016. c2016. Available from: http://www.fda.gov/Drugs/ResourcesForYou/SpecialFeatures/ucm263948.htm
8. Fashner J, Ericson K, Werner S. Treatment of the common cold in children and adults. Am Fam Physician. 2012;86(2)153–159.
9. Pappas DE. The common cold in children: management and prevention. UptoDate [homepage on the Internet]. 2016. Available from: http://www.uptodate.com/contents/the-common-cold-in-children-management-and-prevention
10. Wicker AM, Labruzzo BA. Recommendation for the use of OTC cough and cold medication in children. US Pharmacist. 2009;34(3);33–36.
11. Ramadan HH. Medical treatment of pediatric sinusitis treatment and management. Medscape [homepage on the Internet]. 2015. c2016. Available from: http://emedicine.medscape.com/article/873149-treatment
12. Monthly Index of Medical Specialities. 2015;55(11).
13. When your baby or infant has a fever. MedlinePlus.[homepage on the internet] [updated 12/4/2016; cited 14/3/2016] Available from: https://www.nlm.nih.gov/medlineplus/ency/patientinstructions/000319.htm