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Nasal saline irrigation in children: A study of compliance and tolerance

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ABSTRACT

Objective: To determine the compliance with and tolerance of nasal saline irrigation in children.
Study design: Phone survey.
Setting: Tertiary pediatric hospital.
Methods: Children diagnosed with nasal congestion and rhinorrhea from sinusitis, chronic rhinitis or allergic rhinitis were identified. Children who were prescribed a therapeutic course of nasal saline, who were instructed how to administer the treatment and who were available for follow up were included. Parents were contacted by phone and asked to complete a questionnaire regarding their child's experience with nasal saline irrigation.
Results: 61 Children met inclusion criteria. 73% of parents initially thought that nasal saline irrigation would be helpful, but only 28% thought that their children would tolerate the treatment. 93% of children made an attempt to use nasal saline irrigation and 86% were able to tolerate the treatment. 84% of parents whose children attempted nasal saline irrigation noted an improvement in their child's nasal symptoms. 77% of children that attempted nasal saline irrigation continue to use this treatment for symptom relief. 93% reported an improvement in their child's overall health that they attributed to this treatment.
Conclusions: Perhaps the biggest barrier to routine recommendation of nasal saline irrigation in children is the assumption by both parents and physicians that children will not tolerate it. However, this study demonstrates that the majority of children, regardless of age, were judged by their parents to tolerate nasal saline irrigation.

1. Introduction

Rhinosinusitis is a common clinical problem with significant morbidity and often refractory symptoms that accounts for approximately 26.7 million office and emergency room visits and results in 5.8 billion dollars spent in direct costs in the United States each year [1]. The impact of sinonasal disease on a patient's quality of life is significant in both the adult and pediatric population. Parents of children with chronic rhinosinusitis perceive their children to have more bodily pain and be more physically limited than do parents of children with other chronic diseases, including attention deficit/hyperactivity disorder, juvenile rheumatoid arthritis, epilepsy and asthma [2]. As part of the "unified airway" theory, studies have shown that treatment and resolution of rhinosinusitis results in an improvement in several pulmonary conditions such as asthma and cystic fibrosis [3].

Nasal saline irrigation are a personal hygiene practice in which mucus and debris is flushed from the nasal cavity. This is typically performed using a commercially available neti pot or flexible plastic bottle and warm saline solution. Nasal saline irrigation has long been a mainstay of treatment for sinonasal disease in the adult population because of its economy, safety and apparent efficacy. While the literature suggests a benefit to nasal irrigation in the treatment of children with seasonal allergies [4], acute sinusitis [5] and chronic sinusitis [6], these studies are limited by small sample sizes, inconsistent methodologies and undefined compliance rates. To our knowledge, the compliance with and tolerance of nasal saline irrigation has not before been studied in the pediatric population. In our experience, there is often an assumption by parents and physicians that children will be unwilling to attempt nasal saline irrigation and unable to tolerate this treatment.

Our objective was to determine the compliance with and tolerance of nasal saline irrigation in children.

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