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[Intervention Review]

Decongestants, antihistamines and nasal irrigation for acute sinusitis in children

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ABSTRACT

Background

The efficacy of decongestants, antihistamines and nasal irrigation in children with clinically diagnosed acute sinusitis has not been systematically evaluated.

Objectives

To systematically review the efficacy of decongestants, antihistamines and nasal irrigation in children with clinically diagnosed acute sinusitis. We considered the following four interventions: 1) decongestants versus placebo or no medication, 2) antihistamines versus placebo or no medication, 3) decongestant and antihistamine combination versus placebo or no medication, 4) nasal irrigation versus no irrigation. The primary outcomes of the review were symptom resolution (improvement in symptom score from enrolment to day 5) and overall symptom burden (as measured by average symptom scores while on therapy).

Search methods

We searched the Cochrane Register of Controlled Trials (CENTRAL) (*The Cochrane Library* Issue 2, 2010), which includes the Acute Respiratory Infections Group's Specialized Register, MEDLINE (1950 to May Week 1, 2010) and EMBASE (1950 to January 2010).

Selection criteria

We included randomized controlled trials (RCTs) and quasi-RCTs which evaluated children less than 18 years of age with acute sinusitis, defined as 10 to 30 days of rhinorrhea, congestion or daytime cough. We excluded trials of children with chronic sinusitis and allergic rhinitis.

Data collection and analysis

Two review authors independently assessed each study for inclusion.

Main results

Of the 402 studies found through the electronic searches and handsearching, none met all the inclusion criteria.

Authors' conclusions

There is no evidence to determine whether the use of antihistamines, decongestants or nasal irrigation is efficacious in children with acute sinusitis. Further research is needed to determine whether these interventions are beneficial in the treatment of children with acute sinusitis.

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PLAIN LANGUAGE SUMMARY

Decongestants, antihistamines and nasal irrigation for acute sinusitis in children

Young children experience an average of six to eight colds per year. Of every 10 children with a cold, one develops sinusitis. Sinusitis occurs when the sinuses, which do not drain properly during a cold, become secondarily infected with bacteria. Instead of getting better, children with sinusitis often have worsening or persistent cold symptoms. In order to alleviate the symptoms of sinusitis, parents and physicians often resort to using decongestants, antihistamines and nasal irrigation. These treatments are available without requiring a prescription and are widely used. Previous studies have shown that the use of antihistamines and decongestants in children is associated with significant side effects. The goal of this review was to determine whether there is any evidence in the medical literature for or against the use of these interventions in children with sinusitis. After a comprehensive review of the literature, we failed to find any trials that evaluated the efficacy of these interventions (compared to no medication or placebo) in children with clinically diagnosed acute sinusitis. Accordingly, the use of antihistamines and decongestants in children with acute sinusitis cannot be recommended.