primary studies - published RCT

Comparative efficacy and safety of 4 randomized regimens to treat early Pseudomonas aeruginosa infection in children with cystic fibrosis.

Code: PM21893650 **Year:** 2011 **Date:** 2014 **Author:** Treggiari MM

Study design (if review, criteria of inclusion for studies)

double-blind placebo-controlled crossover-trial.

Participants

23 CF patients with chronic rhinosinusitis

Interventions

patients were randomised to inhale either dornase alfa or isotonic saline for 28 days with the Pari-Sinus and after 28 days (wash-out) crossed over to the alternative treatment.

Outcome measures

The primary outcome parameter was primary nasal symptom score in the disease-specific quality of life Sino-Nasal Outcome-Test-20 (SNOT-20: nasal obstruction/sneezing/runny nose/thick nasal discharge/reduced smelling).

Main results

Primary nasal symptoms improved significantly with dornase alfa compared with no treatment, while small improvements with isotonic saline did not reach significance. SNOT-20 overall scores improved significantly after dornase alfa compared with isotonic saline (p=0.017). Additionally, sinonasal dornase alfa but not isotonic saline significantly improved pulmonary function (FEF75-25: p=0.021).

Authors' conclusions

Vibrating sinonasal inhalation of dornase alfa reduces rhinosinusitis symptoms in CF.

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See also

Archives of pediatrics & adolescent medicine

Keywords

Bacterial Infections; Deoxyribonuclease; Infection; Inhalation OR nebulised; nebuliser; non pharmacological intervention - devices OR physiotherapy; pharmacological_intervention; Recombinant Proteins; Respiratory Tract Infections; Sinusitis; Airway clearance drugs -expectorants- mucolytic- mucociliary-; Respiratory System Agents; Respiratory Tract Diseases; Dornase alpha; Pulmozyme; vibration;