primary studies - published RCT

The effect of dornase alfa on ventilation inhomogeneity in patients with cystic fibrosis.

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

RCT with crossover design

Participants

CF patients between 6-18 yrs of age with FEV(1)>/=80% pred were eligible. n=17. The mean +/- sd age was 10.32 +/- 3.35 yrs.

Interventions

patients received 4 weeks of dornase alfa and placebo in a randomised sequence separated by a 4-week washout period.

Outcome measures

The primary end-point was the change in LCI from dornase alfa versus placebo. A mixed model approach incorporating period-dependent baselines was used.

Main results

Dornase alfa improved LCI versus placebo (0.90 +/- 1.44; p = 0.022). Forced expiratory flow at 25-75% expired volume measured by % pred and z-scores also improved in subjects on dornase alfa (6.1% +/- 10.34%; p = 0.03 and 0.28 +/- 0.46 z-score; p = 0.03).

Authors' conclusions

Dornase alfa significantly improved LCI. Therefore the LCI may be a suitable tool to assess early intervention strategies in this patient population.

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See also

Eur Respir J. 2011 Apr;37(4):806-12. Epub 2010 Aug 6.

Keywords

Adolescent; Bacterial Infections; Burkholderia cepacia; Child; Deoxyribonuclease; Infection; Inhalation OR nebulised; non pharmacological intervention - devices OR physiotherapy; pharmacological_intervention; Recombinant Proteins; Respiratory Tract Infections; Ventilators; Airway clearance drugs -expectorants- mucolytic- mucociliary-; Respiratory System Agents; Respiratory Tract Diseases; Dornase alpha; Pulmozyme;