primary studies - published RCT

Effect of treatment with dornase alpha on airway inflammation in patients with cystic fibrosis.

Code: PM14684561 **Year:** 2004 **Date:** 2004 **Author:** Paul K

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

Randomised parallel-control trial. Participants were evaluated clinically every 3 months during the 3-year period.

Participants

A total of 105 patients with CF (> or =5 years of age) having normal lung function were randomized to receive rhDNase (2.5 mg/day) or no rhDNase. Patients with a normal percentage of neutrophils in BAL fluid at baseline were not randomized and served as the control group.

Interventions

rhDNase (2.5 mg/day) or no rhDNase

Outcome measures

neutrophils in BAL fluid

Main results

The percentage of neutrophils in the pooled BAL sample was similar in both randomized groups at baseline. A significant increase in neutrophils was observed over the 3-year study period in both untreated patients and control subjects, whereas neutrophils remained unchanged in patients treated with rhDNase. Elastase activities and interleukin-8 concentrations also increased in untreated patients and remained stable in patients on rhDNase.

Authors' conclusions

in patients with CF, an increase in neutrophilic airway inflammation is found that is positively influenced by rhDNase treatment.

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See also

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Keywords

Adolescent; Adult; Bacterial Infections; Child; Deoxyribonuclease; Airway clearance drugs -expectorants- mucolytic- mucociliary-; Infection; pharmacological_intervention; Pneumonia; Recombinant Proteins; Respiratory Tract Infections; Respiratory System Agents; Respiratory Tract Diseases; Dornase alpha; Pulmozyme; Inhalation OR nebulised; nebuliser;