primary studies - published RCT

Effect of rhDNase on airflow obstruction and mucociliary clearance in cystic fibrosis.

Code: PM8564129 **Year:** 1996 **Date:** 1996 **Author:** Laube BL

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

Randomised, double-blind parallel design trial over 6 days.

Participants

The published paper stated that there were no withdrawals. 20 adults (over 18 years of age) with stable stage CF, FVC 35 % - 75 % predicted and non-smokers.

Interventions

Comparison of 2.5 mg nebulized dornase alfa (n = 10) versus placebo (n = 10) bd.

Outcome measures

Included in this review: mean change in % predicted FVC and FEV1, not included: aerosol distribution homogeneity, changes in mucociliary clearance and changes in cough frequency. Measurements were taken on day 6 only and reported in the paper.

Main results

Compared with baseline, there were no statistically significant differences between the two study groups by Day 6 for indices of airflow obstruction obtained from gamma-camera images of the right lung following inhalation of 99mTc aerosol, or for mucociliary clearance or the rate of clearance of the radioaerosol, quantified over a 6-h period. By Day 6, FEV1 and FVC were significantly higher in the rhDNase-treated group than in the placebo group, increasing by an average of 9.4 +/- 3.5% and 12.7 +/- 2.6%, respectively, as compared with a decrease of 1.8 +/- 1.7% and an increase of 0.4 +/- 1.1%, respectively (p

http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/184/CN-00123184/frame.html

See also

Am J Respir Crit Care Med. 1996 Feb;153(2):752-60.

Keywords

Adolescent; Adult; Artificial Ventilation; Deoxyribonuclease; Inhalation OR nebulised; non pharmacological intervention - devices OR physiotherapy; pharmacological_intervention; Recombinant Proteins; Ventilators; Airway clearance drugs -expectorants- mucolytic-mucociliary-; Respiratory System Agents; Dornase alpha; Pulmozyme;