

primary studies - published RCT

## **Reduction of sputum *Pseudomonas aeruginosa* density by antibiotics improves lung function in cystic fibrosis more than do bronchodilators and chest physiotherapy alone.**

**Code:** PM2109558

**Year:** 1990 **Date:** 1995

**Author:** Regelman WE

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

open label study

### **Participants**

A cohort of 52 cystic fibrosis patients with a FVC > 40% predicted were enrolled. 26 male and 26 female patients with a mean FVC of 2.941 and FEV1 of 1.471 were recruited. Thirteen patients did not complete the study; there were seven deaths, three patients withdrew consent and three patients were lost to follow-up.

### **Interventions**

They received 2.5 mg rhDNase twice daily for 6 months followed by a 2-week wash-out period, and for the subsequent 18 months were treated with rhDNase once daily.

### **Outcome measures**

lpulmonary function

### **Main results**

Improvement in pulmonary function was seen following treatment and changes were evaluated as mean percent change from baseline. The maximum improvement occurred in the first month followed by a plateau at a lower level of improvement. The mean improvement in FEV1 over the first month was 13.3% (range 12-14.1%), followed by a plateau at around 7.1% (range 4.6-11.0%) for the subsequent 23 months. Mean FVC was improved by 12.03% (range 9.0-14.3%) over the first month and subsequently 4.2% (range - 2.2-10.2%). The effects on pulmonary function were similar for both treatment doses of rhDNase. There was also a steady improvement in weight from a mean of 54.2 kg to 55.7 kg at the end of the study.

<http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/638/CN-00612638/frame.html>

### **See also**

The American review of respiratory disease YR: 1990 VL: 141 NO: 4 Pt 1

### **Keywords**

Adolescent; Adult; Deoxyribonuclease; Airway clearance drugs -expectorants- mucolytic- mucociliary-; pharmacological\_intervention; Recombinant Proteins; Respiratory System Agents; Dornase alpha; Pulmozyme; Inhalation OR nebulised; nebuliser;