primary studies - published RCT

Once-daily tobramycin in the treatment of adult patients with cystic fibrosis.

Code: PM11866010 **Year:** 2002 **Date:** 2005 **Author:** Whitehead A

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

As part of the BEAT trial, this is a longitudinal study

Participants

20 CF patients with normal pulmonary function (median FEV1 94% of predicted)

Interventions

bronchoalveolar lavage fluid at three times over a three year period.

Outcome measures

lung function, surfactant function and endobronchial inflammation

Main results

There was a progressive loss of surfactant function, assessed as minimal surface tension. The decline in surfactant function was negatively correlated to an increase in neutrophilic inflammation and a decrease in lung function, assessed by FEV1, MEF(75/25%VC), and MEF(25%VC). The concentrations of the surfactant specific proteins A, C and D did not change, whereas SP-B increased during this time period.

Authors' conclusions

There may be a link between loss of surfactant function driven by progressive airway inflammation and loss of small airway function in CF patients with limited lung disease.

http://dx.doi.org/10.1183/09031936.02.00221602

See also

Eur Respir J. 2002 Feb;19(2):303-9.

Keywords

Bacterial Infections; Infection; Pneumonia; Respiratory System Agents; Respiratory Tract Infections; surfactant; Virus; Airway clearance drugs -expectorants- mucolytic- mucociliary-; pharmacological_intervention; Respiratory Tract Diseases;