primary studies - published, non RCT

Inhalation with fucose and galactose for treatment of Pseudomonas aeruginosa in cystic fibrosis patients.

Code: PM19043609 **Year:** 2008 **Date:** 2008 **Author:** Hauber HP

Participants

11 adult CF patients with chronic infection with P. aeruginosa

Interventions

patients were treated twice daily with inhalation of a fucose/galactose solution for 21 days (4 patients only received inhalation, 7 patients received inhalation and intravenous antibiotics). We hypothesized that P. aeruginosa lung infection should be cleared by inhalation of fucose and galactose, which compete for the sugar binding site of the two lectins and thus inhibit the binding of P. aeruginosa.

Outcome measures

Microbial counts of P. aeruginosa, lung function measurements, and inflammatory markers were determined before and after treatment.

Main results

The sugar inhalation was well tolerated and no adverse side effects were observed. Inhalation alone as well as combined therapy (inhalation and antibiotics) significantly decreased P. aeruginosa in sputum (P

Authors' conclusions

Inhalation of simple sugars is a safe and effective measure to reduce the P. aeruginosa counts in CF patients. This may provide an alternative therapeutical approach to treat infection with P. aeruginosa.

http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/008/CN-00665008/frame.html

See also

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Keywords

Adult; Aminoglycosides; Anti-Bacterial Agents; Bacterial Infections; Cephalosporins; Combined Modality Therapy; Infection; Inhalation OR nebulised; pharmacological_intervention; Pseudomonas aeruginosa; Pseudomonas; Respiratory Tract Diseases; Respiratory Tract Infections; Intravenous;