

primary studies - published RCT

The Adaptive Aerosol Delivery system in a telehealth setting: patient acceptance, performance and feasibility.

Code: PM20373906

Year: 2010 **Date:** 2013

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

Double-blind, randomized, placebo-controlled crossover trial

Participants

19 CF patients

Interventions

Twice daily inhalation of 500mg L-arginine for two weeks compared to inhalation of saline

Outcome measures

Safety and efficacy; exhaled NO, FEV(1), sputum concentrations of L-ornithine, the product of arginase activity and inflammatory markers in sputum

Main results

L-Arginine inhalation was well tolerated and resulted in a significant increase in exhaled NO. FEV(1) increased by an average of 56ml compared to -8ml after saline solution; but this difference did not reach statistical significance. Sputum concentrations of L-ornithine, the product of arginase activity, increased significantly while the L-ornithine derived polyamines did not. There was no change in inflammatory markers in sputum

Authors' conclusions

Repeated inhalation of L-arginine in CF patients was safe and well tolerated. Inhaled L-arginine increased NO production without evidence for changes in airway inflammation.

<http://dx.doi.org/10.1089/jamp.2009.0770>

See also

Journal of aerosol medicine and pulmonary drug delivery YR: 2010 VL: 23 Suppl 1

Keywords

Adult; Aged; Child; Inhalation OR nebulised; pharmacological_intervention; Arginine; Amino Acids; Proteins; Supplementation; non pharmacological intervention - diet;