primary studies - published RCT

Temporal associations among energy intake, plasma linoleic acid, and growth improvement in response to treatment initiation after diagnosis of cystic fibrosis.

Code: PM16452358 **Year:** 2006 **Date:** 2009 **Author:** Shoff SM

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

single-centre, randomised, double-blinded, placebo-controlled phase II clinical study to test safety and efficacy

Participants

21 patients (DeltaF508 homo/heterozygous, FEV1>40% pred.) were included in the study

Interventions

12-week therapy with low-dose (700 mg/daily) or high-dose (2800 mg/daily) of NAC. After a 3-weeks placebo run-in phase, 11 patients received low-dose NAC, and 10 patients received high-dose NAC.

Outcome measures

Outcomes included safety and clinical parameters, inflammatory (total leukocyte numbers, cell differentials, TNF-alpha, IL-8) measures in induced sputum, and concentrations of extracellular glutathione in induced sputum and blood

Main results

High-dose NAC was a well-tolerated and safe medication. High-dose NAC did not alter clinical or inflammatory parameters. However, extracellular glutathione in induced sputum tended to increase on high-dose NAC.

Authors' conclusions

High-dose NAC is a well-tolerated and safe medication for a prolonged therapy of patients with CF with a potential to increase extracellular glutathione in CF airways.

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See also

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Keywords

Acetylcysteine; Adult; Antioxidants; Airway clearance drugs -expectorants- mucolytic- mucociliary-; Glutathione; High-Dose; N Acetylcysteine; pharmacological_intervention; thiols; Low-Dose; Respiratory System Agents; Nacystelyn;