primary studies - published RCT

Efficacy of Adding Oral N acetyl Cysteine Supplement to the Cystic Fibrosis Treatment Regimen: A Randomized Quasi-Experimental Trial.

Code: PM40275972 **Year:** 2025 **Date:** **Author:** Keshavarz S

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

Randomized, quasi-experimental pilot and add-on therapy controlled with a placebo

Participants

Patients aged 6-18 with mild-to-moderate pulmonary involvement. From the 2021 fall to the summer of 2022, 38 CF patients referred to Imam Hossein Children's Hospital Clinic were finally examined. They were clinically stable with a forced expiratory volume in the first second (FEV(1)) level of more than 50% and no history of underlying cardiovascular and renal diseases.

Interventions

Oral N-acetyl cysteine (NAC) supplement to the cystic fibrosis (CF) treatment regimen compared to adding a placebo. The case group received 200 mg of oral NAC three times a day. In contrast, the control group had a placebo in the same way.

Outcome measures

CF Questionnaire-Revised; forced vital capacity (FVC), FEV(1), FEV(1)/FVC, forced expiratory flow between 25% and 75% of vital capacity

Main results

The differences between the groups were not significant. In the placebo group, key measures remained unchanged, whereas the NAC group had an improvement in the CF Questionnaire-Revised score but no notable changes in other indices. Overall, comparisons of forced vital capacity (FVC) between the groups showed no variation.

Authors' conclusions

The indicators of FEV(1), FVC, FEV(1)/FVC, forced expiratory flow between 25% and 75% of vital capacity, and the quality of life of the case group were not significantly different from those of the placebo group, and no significant differences were observed between this medicine and placebo.

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See also

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Keywords

Acetylcysteine; Airway clearance drugs -expectorants- mucolytic- mucociliary-; Inhalation OR nebulised; N Acetylcysteine; pharmacological_intervention; Combined Modality Therapy; Oral; Respiratory System Agents; Nacystelyn;