primary studies - published RCT

Vitamin D for the Immune System in Cystic Fibrosis (DISC): a double-blind, multicenter, randomized, placebo-controlled clinical trial.

Code: PM30793177 **Year:** 2019 **Date:** 2019 **Author:** Tangpricha V

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

Multicenter, double-blind, placebo-controlled, clinical trial.

Participants

91 adults with CF during an acute pulmonary exacerbation

Interventions

Patients were randomly assigned to oral vitamin D3 given as a single dose of 250,000 International Units (IU) or to placebo within 72 h of hospital admission for an acute pulmonary exacerbation, followed by 50,000 IU of vitamin D3 or an identically matched placebo pill taken orally every other week starting at 3 mo after random assignment.

Outcome measures

The primary outcome was the composite endpoint of the time to next pulmonary exacerbation or death within 1 y. The secondary outcomes included circulating concentrations of the antimicrobial peptide cathelicidin and recovery of lung function as assessed by the percentage of predicted forced expiratory volume in 1 s (FEV1%).

Main results

There were no differences between the vitamin D3 and placebo groups in time to next pulmonary exacerbation or death at 1 y. In addition, there were no differences in serial recovery of lung function after pulmonary exacerbation by FEV1% or in serial concentrations of plasma cathelicidin.

Authors' conclusions

Vitamin D3 initially given at the time of pulmonary exacerbation of CF did not alter the time to the next pulmonary exacerbation, 12-mo mortality, serial lung function, or serial plasma cathelicidin concentrations.

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See also

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Keywords

Bone Density Conservation Agents; Bone Diseases; Gastrointestinal Diseases; Pancreas insufficiency; Pancreatic Diseases; pharmacological_intervention; Supplementation; vitamins; Vitamin D; Vitamin D Deficiency; Vitamin deficiencies; Malabsorption;