primary studies - published RCT

Does lithium carbonate affect the ion transport abnormality in cystic fibrosis?.

Code: PM2352788 **Year:** 1990 **Date:** 1990 **Author:** Anbar RD

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

double-blind, placebo-controlled trial.

Participants

36 CF patients, 12-37 years old. 18 patients were randomly assigned to receive treatment

Interventions

active treatment: lithium carbonate for 10 weeks

Outcome measures

serum lithium concentration, weat chloride concentration, pulmonary function

Main results

At the end of therapy their average serum lithium concentration was 0.56 +/- 0.06 mmol (SEM) per liter. Their sweat chloride concentration fell from 92.1 +/- 4.8 mmol per liter to 87.4 +/- 4.0 mmol per liter after 10 weeks of therapy (P = 0.07) and rose to 94.4 +/- 3.5 mmol per liter 4 weeks after end of therapy (P less than 0.001 compared to results at end of therapy). Their forced vital capacity (FVC) fell from 72 +/- 5.3% of predicted to 66 +/- 5.1% of predicted after 4 weeks of therapy (P less than 0.01), and their forced expiratory volume in one second (FEV1) fell from 56 +/- 5.5% of predicted to 51 +/- 5.5% of predicted after 4 weeks of therapy (P less than 0.01). In a non-blind assessment, performed 19 weeks after the end of therapy, their FVC and FEV1 had risen and were not significantly different from baseline. Sweat chloride, FVC, and FEV1 remained unchanged in the placebo group throughout the period of study.

http://dx.doi.org/10.1002/ppul.1950080205

See also

Pediatr Pulmonol. 1990;8(2):82-8.

Keywords

Adolescent; Adult; Airway clearance technique; Child; Lithium; Other drugs; pharmacological_intervention;