

primary studies - published RCT

Sputum rheology changes in cystic fibrosis lung disease following two different types of physiotherapy: VRP1 (flutter) versus autogenic drainage.

Code: CN-00208430 **Year:** 1995 **Date:** 2000

Author: App EM

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

RCT

Participants

36 patients (16 girls) more than 4 years of age. control group (n = 20, age 13.3 +/- 3.8 years, mean +/- SD). intervention group (n = 16, age, 10.4 +/- 4.3 years)

Interventions

control group receiving intensive dietary counseling only, or an intervention group treated for 3 months with dietary counseling plus 628 +/- 254 mL (= kcal) per day of an energy supplement rich in fat (31% of energy) and linoleic acid (16% of energy).

Outcome measures

energy intake, weight for height, body fat, plasma phospholipid linoleic acid, arachidonic acid

Main results

In contrast to the control group, the patients with supplemented diets achieved significant increases of energy intake (2189 +/- 731 kcal/day vs. 2733 +/- 762 kcal/day), weight for height (82.8% +/- 8.6% vs. 84.8% +/- 9.6% of normal), and body fat (5.1 +/- 1.7 kg vs. 5.8 +/- 2.2 kg) as well as the initially low values of plasma phospholipid linoleic acid (11.8% +/- 1.1% vs. 17.6% +/- 1.6% of total phospholipid fatty acids) and its main metabolite arachidonic acid (4.4% +/- 0.4% vs. 5.9% +/- 0.3%).

Authors' conclusions

Patients with cystic fibrosis with low body weight and poor EFA status benefit from EFA-rich energy supplements and can synthesize arachidonic acid from the precursor linoleic acid.

<http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/430/CN-00208430/frame.html>

See also

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Keywords

Adolescent; Caloric Intake; Child; essential fatty acids; linoleic acid; non pharmacological intervention - diet; Supplementation; Counseling; Psychoeducation; non pharmacological intervention - psycho-soc-edu-org; omega-6;