primary studies - published RCT

Choline Supplementation with a Structured Lipid in Children with Cystic Fibrosis: A Randomized Placebo-Controlled Trial.

Code: PM26465792 **Year:** 2015 **Date:** 2015 **Author:** Schall JI

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

Randomized placebo-controlled double blind trial.

Participants

Children with CF and PI

Interventions

Children were randomized to LXS or placebo (12-month)

Outcome measures

Dietary choline intake, plasma cholines, plasma and fecal phospholipids, coefficient of fat absorption (CFA), pulmonary function, growth status, body composition, and safety measures were assessed. Magnetic resonance spectroscopy for calf muscle choline and liver fat were assessed in a subgroup and compared to a healthy comparison group matched for age, sex and body size.

Main results

110 subjects were enrolled (age 10.4 +/- 3.0 years). Baseline dietary choline, 88% recommended, increased 3-fold in the LXS group. Plasma choline, betaine, and dimethylglycine increased in the LXS but not placebo (P = 0.007). Plasma lysophosphatidylcholine and phosphatidylcholine (PC) increased and fecal PC/phosphatidylethanolamine ratio decreased (P

Authors' conclusions

LXS had improved choline intake, plasma choline status and muscle choline stores, compared with placebo. The choline-rich supplement was safe, accepted by participants and improved choline status in children with CF.

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See also

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Keywords

Child; Gastrointestinal Diseases; Lym-X-Sorb; non pharmacological intervention - diet; Pancreas insufficiency; Pancreatic Diseases; placebo; Malabsorption; Nutrition Disorders; Powders; Phosphatidylcholines; Gastrointestinal Agents; essential fatty acids;