primary studies - published RCT

Enteral nutrition for patients with cystic fibrosis: comparison of a semi-elemental and nonelemental formula.

Code: PM9506639 **Year:** 1998 **Date:** 1998 **Author:** Erskine JM

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

RCT

Participants

16 patients (eight girls and eight boys) with cystic fibrosis, 4 to 20 years of age (12+/-1.3, mean +/- SEM), who were pancreatic insufficient

Interventions

two 6-day regimens of nocturnal continuous enteral feedings offered in random order. Forty-four percent of the total daily energy was consumed as enteral tube feedings, and the remaining oral dietary intake remained constant throughout the study.

Outcome measures

Seventy-two-hour fecal collections from each study period were analyzed for total fat, long-chain fatty acids (LCFAs), medium-chain fatty acids (MCFAs), and nitrogen.

Main results

Fat absorption was 80.2%+/-2.9% and 82.3%+/-3.1% (p = 0.58) for the semi-elemental and nonelemental formulas, respectively. Similarly, the coefficient of absorption of LCFAs was 69.5%+/-4.5% and 79.6%+/-3.4% (p = 0.30) for the semi-elemental and nonelemental formulas. Malabsorption of MCFAs contributed minimally to total fat malabsorption. There was no difference between formulas for MCFA or for nitrogen absorption, 83.7%+/-1.9% and 87.4%+/-1.4%, p = 0.48. All patients tolerated all feedings, and weight gained was 1.8+/-0.3 kg with no difference in weight gain between the trials.

Authors' conclusions

A nonelemental formula, with enzyme replacement, is absorbed as well as a predigested formula in patients with CF who are pancreatic insufficient.

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See also

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Keywords

Adolescent; Adult; Child; Enteral Nutrition; Food; non pharmacological intervention - diet; Supplementation; Malabsorption; Nutrition Disorders; Oral;