primary studies - published RCT

Effectiveness of enteric coated pancreatic enzymes given before meals in reducing steatorrhea in children with cystic fibrosis.

Code: PM1624649 **Year:** 1992 **Date:** 1992 **Author:** Brady MS

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

randomized trial; crossover study design

Participants

8 children (6 years 11 months old to 14 years 7 months old)

Interventions

enteric coated (EC) pancreatic enzymes before or during meals (15 minutes after beginning of meal) during two consecutive 7-day treatment periods for each child.

Outcome measures

fat excretion

Main results

No difference in fat excretion was documented for the total group when the children who took enzymes before meals were compared with those who took enzymes during meals. However, a stepwise multiple regression analysis of the difference (before minus during) in fat excretion on sex, age, enzyme number, and treatment order documented a positive correlation of age with fat excretion (r = .83). Mean fat excretion in younger children (less than 10 years old) decreased significantly when enzymes were given before meals (7.14 +/- 1.95%) rather than during meals (9.92 +/- 1.61%) (P = .004). The difference in fat excretion (mean = 2.78 +/- 0.55%, range = 1.4% to 4%) translates into a half to one full year's growth potential.

Authors' conclusions

Younger children with cystic fibrosis may benefit clinically from taking EC enzymes before meals.

http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/495/CN-00085495/frame.html

See also

J Am Diet Assoc. 1992 Jul;92(7):813-7.

Keywords

Adolescent; Child; Microspheres; pharmacological_intervention; Pancreatic Enzyme Replacement Therapy; Proteins; Supplementation; Pancreas insufficiency; Pancreatic Diseases; Gastrointestinal Diseases; Malabsorption; Nutrition Disorders; Enteric-Coated; Gastrointestinal Agents;