primary studies - published RCT

Indirect parameters of pancreatic function in cystic fibrosis (CF) during a controlled double-blind trial of pancreatic supplementation.

Code: PM8788290 **Year:** 1996 **Date:** 1996 **Author:** Regele S

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

RCT

Participants

16 cystic fibrosis patients

Interventions

two treatment periods (4 weeks each)

Outcome measures

serum immunoreactive trypsin (IRT), immunoreactive human lipase in stool (IRL), and chymotrypsin (CT) activity in stool compared with fecal fat excretion (72-h sampling)

Main results

Fecal fat estimation revealed mild to severe steatorrhea in all 16 patients (X = 13.7 +/- 9.0 g/24 h) in at least one study period. Stool fat excretion was highest in underweight adolescents and adults. Comparison of IRT and IRL with stool fat values showed no significant statistical correlation. IRT values revealed an inverse exponential correlation with age, with a steep decline at the age of 5 years. CT levels were very high in 14 of our 16 patients during supplementation therapy, whereas 2 patients showed subnormal CT values

Authors' conclusions

since indirect parameters of pancreatic function do not correlate with stool fat excretion, stool fat remains the best indirect parameter for the assessment of pancreatic insufficiency in cystic fibrosis. Leaving pancreatic enzyme supplementation in cystic fibrosis patients on the basis of normal serum trypsin or fecal lipase values does not appear to be adequate.

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See also

J Pediatr Gastroenterol Nutr. 1996 Jan;22(1):68-72.

Keywords

Adolescent; Adult; Child; Gastrointestinal Agents; Gastrointestinal Diseases; pharmacological_intervention; Pancreas insufficiency; Pancreatic Diseases; Pancreatic Enzyme Replacement Therapy; Supplementation; Malabsorption; Nutrition Disorders;