primary studies - published RCT

Gastric emptying, incretin hormone secretion, and postprandial glycemia in cystic fibrosis--effects of pancreatic enzyme supplementation.

Code: PM21389144 **Year:** 2011 **Date:** 2011 **Author:** Kuo P

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

randomized, double-blind, placebo-controlled crossover study

Participants

Five nondiabetic CF patients (three males; age, 25.8 +/- 1.0 yr; body mass index, 20.2 +/- 1.1 kg/m(2)) with exocrine pancreatic insufficiency and six healthy subjects of similar age and body mass index participated in the study.

Interventions

CF patients consumed a radiolabeled mashed potato meal on 2 separate days, together with four capsules of Creon Forte (100,000 IU lipase) or placebo. Healthy subjects consumed the meal once, without pancreatic enzymes.

Outcome measures

Gastric emptying was measured using scintigraphy, and blood was sampled frequently for blood glucose and plasma glucagon-like peptide-1 (GLP-1), glucose-dependent insulinotropic polypeptide (GIP), and glucagon concentrations.

Main results

CF patients had more rapid gastric emptying (P

Authors' conclusions

Pancreatic enzyme supplementation plays an important role in incretin secretion, gastric emptying, and postprandial hyperglycemia in CF.

http://dx.doi.org/10.1210/jc.2010-2460

See also

J Clin Endocrinol Metab. 2011 May;96(5):E851-5. Epub 2011 Mar 9.

Keywords

Adult; Gastrointestinal Diseases; Hypoglycemic Agents; Insulin; pharmacological_intervention; Pancreas insufficiency; Pancreatic Diseases; Pancreatic Enzyme Replacement Therapy; Supplementation; Malabsorption; Nutrition Disorders; Capsules; Creon; Gastrointestinal Agents;