primary studies - published RCT

Insulin therapy to improve BMI in cystic fibrosis-related diabetes without fasting hyperglycemia: results of the cystic fibrosis related diabetes therapy trial.

Code: PM19592632 **Year:** 2009 **Date:** 2009 **Author:** Moran A

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

three-arm multicenter randomized trial

Participants

100 adult patients with CF who had abnormal glucose tolerance. Eighty-one completed the study, including 61 with CFRD FH- and 20 with severly impaired glucose tolerance (IGT).

Interventions

the trial compared 1 year of therapy with premeal insulin aspart, repaglinide, or oral placebo

Outcome measures

BMI, lung function decline, number of hospitalizations

Main results

One hundred adult patients were enrolled. Eighty-one completed the study, including 61 with CFRD FH- and 20 with severly impaired glucose tolerance (IGT). During the year before therapy, BMI declined in all groups. Among the group with CFRD FH-, insulin-treated patients lost 0.30 +/- 0.21 BMI units the year before therapy. After 1 year of insulin therapy, this pattern reversed, and they gained 0.39 +/- 21 BMI units (P = 0.02). No significant change in the rate of BMI decline was seen in placebo-treated patients (P = 0.45). Repaglinide-treated patients had an initial significant BMI gain (0.53 +/- 0.19 BMI units, P = 0.01), but this effect was not sustained. After 6 months of therapy they lost weight so that by 12 months there was no difference in the rate of BMI change during the study year compared with the year before (P = 0.33). Among patients with IGT, neither insulin nor repaglinide affected the rate of BMI decline. No significant differences were seen in the rate of lung function decline or the number of hospitalizations in any group.

Authors' conclusions

Insulin therapy safely reversed chronic weight loss in patients with CFRD FH-.

http://care.diabetesjournals.org/content/32/10/1783

See also

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Keywords

Adult; Diabetes Mellitus; Gastrointestinal Diseases; Hypoglycemic Agents; Insulin; Pancreatic Diseases; pharmacological_intervention; Oral;