primary studies - published RCT

Repaglinide versus insulin for newly diagnosed diabetes in patients with cystic fibrosis: a multicentre, open-label, randomised trial.

Code: PM29199116 **Year:** 2018 **Date:** 2018 **Author:** Ballmann M

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

Multicentre, open-label, comparative, randomised trial

Participants

49 centres in Austria, France, Germany, and Italy. Eligible patients had cystic fibrosis, were older than 10 years, and had newly diagnosed diabetes.

Interventions

Insulin or repaglinide, stratified by sex and age (10-15 years or >15 years). 34 patients in the repaglinide group and 41 in the insulin group

Outcome measures

The primary outcome was glycaemic control assessed by mean change in HbA1c concentration from baseline after 24 months of treatment. Differences between groups were assessed by linear models.

Main results

At 24 months, glycaemic control was similar in the repaglinide and insulin groups (mean change in HbA1c concentration from baseline 0.2% [SD 0.7%], 1.7 mmol/mol [8.1 mmol/mol] with repaglinide vs -0.2% [1.3%], -2.7 mmol/mol, [14.5 mmol/mol] with insulin; mean difference between groups -0.4%, (95% CI -1.1 to 0.2 [-4.4 mmol/mol, -11.5 to 2.7], p=0.15). The most frequent adverse events were pulmonary events (43 [40%] of 107 in the repaglinide group and 60 [45%] of 133 in the insulin group), and the most frequent serious adverse events were pulmonary events leading to hospital admission (five [50%] of ten and seven [54%] of 13, respectively).

Authors' conclusions

Repaglinide for glycaemic control in patients with cystic-fibrosis-related diabetes is as efficacious and safe as insulin.

http://dx.doi.org/10.1016/S2213-8587(17)30400-X

See also

Lancet Diabetes Endocrinol. 2018 Feb;6(2):114-121. doi: 10.1016/S2213-8587(17)30400-X. Epub 2017 Dec 5.

Keywords

Adult; Aged; Child; Diabetes Mellitus; Gastrointestinal Diseases; Hypoglycemic Agents; Insulin; Pancreatic Diseases; pharmacological_intervention; Repaglinide;