Nutritional strategies for correcting low glucose values in patients with postbariatric hypoglycaemia: A randomized controlled three-arm crossover trial.

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)

ID 4699551
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Year 2023
Title Nutritional strategies for correcting low glucose values in patients with postbariatric hypoglycaemia: A randomized controlled three-arm crossover trial.
Journal Diabetes, obesity and metabolism
Volume 25
Number 10
Pages / **Article-Number** 2853-2861
Keywords Roux-en-Y gastric bypass; nutrition; postbariatric hypoglycaemia
Mesh terms Adult; Humans; Blood Glucose, metabolism; Cross-Over Studies; Hypoglycemia, etiology, prevention & control; Insulin, therapeutic use, metabolism; Glucose; Gastric Bypass, adverse effects
To evaluate the efficacy of nutritional hypoglycaemia correction strategies in postbariatric hypoglycaemia (PBH) after Roux-en-Y gastric bypass (RYGB).; In a randomized, controlled, three-arm crossover trial, eight post-RYGB adults (mean [SD] 7.0 [1.4] years since surgery) with PBH ingested a solid mixed meal (584, 85carbohydrates, 21fat, 12protein) to induce hypoglycaemia on three separate days. Upon reaching plasma glucose of less than 3.0/L, hypoglycaemia was corrected with 15of glucose (G15), 5of glucose (G5) or a protein bar (P10, 10of protein) in random order. The primary outcome was percentage of time spent in the target plasma glucose range (3.9-5.5/L) during 40after correction.; Postcorrection time spent in the target glucose range did not differ significantly between the interventions (P = .161). However, postcorrection time with glucose less than 3.9/L was lower after G15 than P10 (P = .007), whereas time spent with glucose more than 5.5/L, peak glucose and insulin 15postcorrection were higher after G15 than G5 and P10 (P < .001). Glucagon 15postcorrection was higher after P10 than after G15 and G5 (P = .002 and P = .003, respectively). G15 resulted in rebound hypoglycaemia (< 3.0/L) in three of eight cases (38%), while no rebound hypoglycaemia occurred with G5 and P10.; Correcting hypoglycaemia with 15of glucose should be reconsidered in post-RYGB PBH. A lower dose appears to sufficiently increase glucose levels outside the critical range in most cases, and complementary nutrients (e.g. proteins) may provide glycaemia-stabilizing benefits.; NTC05250271 (ClinicalTrials.gov).

ISSN/ISBN 1463-1326
Full Text on edoc ;
Digital Object Identifier DOI 10.1111/dom.15175
PubMed ID http://www.ncbi.nlm.nih.gov/pubmed/37336721