primary studies - published RCT

Copper enzyme activities in cystic fibrosis before and after copper supplementation plus or minus zinc.

Code: PM14681839 **Year:** 2004 **Date:** 2004 **Author:** Best K

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

RCT

Participants

CF patients (males and females, N = 38)

Interventions

copper supplementation (6 weeks, 3 mg copper/d as copper-glycinate), plus or minus concurrent zinc supplementation (30 mg zinc/d as zinc-glycinate).

Outcome measures

copper enzymes (superoxide dismutase), plasma diamine oxidase

Main results

The results for the first 2 aims supported the idea of poor copper status, as low activities were found for CF subjects for 2 copper enzyme activities, erythrocyte superoxide dismutase and plasma diamine oxidase (although normal activities were obtained for another copper enzyme, plasma ceruloplasmin, both as U/mL plasma or U/mg ceruloplasmin immunoreactive protein). For the last aim, copper enzyme activities were not altered by copper supplementation, plus or minus concurrent zinc supplementation

Authors' conclusions

CF may cause a tendency to moderate copper deficiency, which may be due to abnormal copper metabolism not easily corrected by increased copper and/or zinc intake.

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See also

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Keywords

Adolescent; Adult; Child; placebo; Supplementation; Zinc; Pancreas insufficiency; Pancreatic Diseases; Gastrointestinal Diseases; Malabsorption; Nutrition Disorders; Minerals; pharmacological_intervention;