primary studies - published RCT

Oral magnesium supplementation in children with cystic fibrosis improves clinical and functional variables: a double-blind, randomized, placebo-controlled crossover trial.

Code: PM22648717 **Year:** 2012 **Date:** 2012 **Author:** Gontijo-Amaral C

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

double-blind, randomized, placebo-controlled crossover study

Participants

44 CF patients (aged 7-19 y; 20 males)

Interventions

patients were randomly assigned to receive magnesium (n = 22; 300 mg/d) or placebo (n = 22) for 8 wk with a 4-wk washout period between trials. All patients were undergoing conventional treatment of CF.

Outcome measures

Long-term effect of oral magnesium supplementation on respiratory muscle strength by using manuvacuometry and the Shwachman-Kulczycki (SK) score. The experimental protocol included clinical evaluation, assessment of urinary concentration of magnesium, and manuvacuometric measurements [maximal inspiratory pressure (MIP) and maximal expiratory pressure (MEP)]. MIP was the primary outcome.

Main results

Urinary magnesium increased after the administration of magnesium (change: 36.38 mg/d after magnesium compared with 0.72 mg/d after placebo; P

Authors' conclusions

Oral magnesium supplementation helped improve both the SK score and respiratory muscle strength in pediatric patients with CF.

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See also

Am J Clin Nutr. 2012 Jul;96(1):50-6. Epub 2012 May 30.

Keywords

magnesium; Minerals; Supplementation; non pharmacological intervention - diet; pharmacological_intervention;