primary studies - published RCT

Long-term oral beta-carotene supplementation in patients with cystic fibrosis - effects on antioxidative status and pulmonary function.

Code: PM10838464 **Year:** 2000 **Date:** 2000 **Author:** Rust P

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

RCT

Participants

24 CF patients (aged 12. 8 +/- 6.3 years). As controls 14 healthy age-matched subjects (aged 14. 7 +/- 6.2 years) were studied.

Interventions

Patients of the CF supplementation group received 1 mg beta-carotene/kg body weight (BW)/day (maximally 50 mg beta-carotene/day) for the first 12 weeks; during the following 12 weeks, dosage was reduced to 10 mg beta-carotene/day.

Outcome measures

plasma beta-carotene, plasma concentrations of other carotenoids and retinol, plasma alpha- and gamma-tocopherol, TBA-MDA complexes and total antioxidative capacity

Main results

At study entry, plasma beta-carotene concentrations were significantly lower in CF patients than in controls (p

Authors' conclusions

CF patients can be efficiently supplemented with 1 mg beta-carotene/kg BW/day (maximally 50 mg beta-carotene/day) to achieve plasma concentrations of healthy control subjects and to minimize oxidative stress, improving the quality of life of CF patients.

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See also

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Keywords

Adolescent; Adult; Antioxidants; Child; non pharmacological intervention - diet; Oral; pharmacological_intervention; placebo; Supplementation; Vitamin A; Vitamins;