

Abstract

Rheumatology (Oxford). 2008 May;47(5):665-9.

Cod liver oil (n-3 fatty acids) as an non-steroidal anti-inflammatory drug sparing agent in rheumatoid arthritis.

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OBJECTIVES: Dose-dependant gastrointestinal and cardiovascular side-effects limit the use of NSAIDs in the management of RA. The n-3 essential fatty acids (EFAs) have previously demonstrated some anti-inflammatory and NSAID-sparing properties. The objective of this study was to determine whether cod liver oil supplementation helps reduce daily NSAID requirement of patients with RA.

METHODS: Dual-centre, double-blind placebo-controlled randomized study of 9 months' duration. Ninety-seven patients with RA were randomized to take either 10 g of cod liver oil containing 2.2 g of n-3 EFAs or air-filled identical placebo capsules. Documentation of NSAID daily requirement, clinical and laboratory parameters of RA disease activity and safety checks were done at 0, 4, 12, 24 and 36 weeks. At 12 weeks, patients were instructed to gradually reduce, and if possible, stop their NSAID intake. Relative reduction of daily NSAID requirement by >30% after 9 months was the primary outcome measure.

RESULTS: Fifty-eight patients (60%) completed the study. Out of 49 patients 19 (39%) in the cod liver oil group and out of 48 patients 5 (10%) in the placebo group were able to reduce their daily NSAID requirement by >30% ($P = 0.002$, chi-squared test). No differences between the groups were observed in the clinical parameters of RA disease activity or in the side-effects observed.

CONCLUSIONS: This study suggests that cod liver oil supplements containing n-3 fatty acids can be used as NSAID-sparing agents in RA patients.

PMID: 18362100