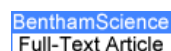




FULL TEXT LINKS

Clinical Trial [Curr Rheumatol Rev.](#) 2024 Oct 7.

doi: 10.2174/0115733971314334240930043717. Online ahead of print.

High-dose Omega-3 Alters Serum Magnesium and Calcium Levels and Affects Fibromyalgia Symptoms: A Randomized, Double-blind, Placebo-Control Study

Maha A Abdel Fattah ¹, Shereen Morsi ², Shaimaa A Fattah ³, Nermeen A Moneim ¹,
Marwa G Tawfik ¹

Affiliations

PMID: 39377412 DOI: [10.2174/0115733971314334240930043717](#)

Abstract

Objective: The aim of this study is to investigate the effect of a high oral dose of omega-3 on serum magnesium (Mg) and calcium (Ca) levels and their effects on clinical measures of pain threshold.

Methods: One hundred twenty patients were recruited and randomized 1:1 to omega-3 or placebo and blinded to their treatment group. At baseline and after 8 weeks of treatment, the Widespread Pain Index (WPI), the Symptom Severity Scale (SSS), the Visual Analogue Scale (VAS), and the FM Impact Questionnaire (FIQ) were completed. In addition, serum was taken for Ca and Mg analysis at the same time point.

Results: The WPI, SSS, VAS, and FIQ scores improved significantly in the omega-3 group compared to the placebo group ($P < 0.001$). Serum Ca levels correlated negatively with WPI ($r = -0.308$), SSS ($r = -0.28$), VAS ($r = -0.311$), and FIQ ($r = -0.348$) scores ($P < 0.001$) after 8 weeks of treatment. Serum Mg levels were negatively correlated with SSS ($r = -0.212$) and VAS ($r = -0.231$) scores after 8 weeks of treatment. The difference between serum Ca levels before and after 8 weeks of omega-3 treatment and serum Mg levels increased significantly compared to 8 weeks of placebo treatment.

Conclusion: The results of this study showed that a high dose of omega-3 could have a positive effect on the relief of FM pain, which could be due to an increase in serum Mg and Ca levels.

Keywords: Calcium; Fibromyalgia; Omega-3; Pain; Randomized Clinical Trial; and Magnesium.

Copyright© Bentham Science Publishers; For any queries, please email at epub@benthamscience.net.

[PubMed Disclaimer](#)

Related information

[MedGen](#)

LinkOut – more resources

Full Text Sources

[Bentham Science Publishers Ltd.](#)