Review on the Efficacy of Omega-3 in the Treatment of Attention-Deficit Hyperactivity Disorder.

Park SY, Lee SI, Lee MS.
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Abstract

Pharmacotherapy is considered the first line therapy in attention-deficit hyperactivity disorder (ADHD). Many patients also choose complementary medicine such as dietary supplements. Omega-3 has shown some efficacy for improving ADHD symptoms in several studies. The goal of this review is to integrate the previous research findings on omega-3 and understand the issues worth considering in the treatment of ADHD. The terms "attention deficit disorder with hyperactivity", "omega-3", and "dietary supplements" were searched on PubMed, Cochrane, and Google scholar. The search was further limited to clinical trials, reviews, and meta-analyses. Trials that examined treatments for ADHD, used randomized design, and placebo-controlled trials were included. Eighteen clinical trials with a total of 1,141 participants were included in this review. Fifteen trials had parallel designs, comparing an omega-3/6 polyunsaturated fatty acid (PUFAs) or a combination of both to a placebo and three compared omega-3/6 PUFAs to a placebo and psycho-stimulants. Seven of the included trials showed significant improvements in groups receiving omega-3/6 PUFAs compared to placebo groups, however, 11 trials showed no significant differences. Evidence that PUFAs supplementation provides benefits for ADHD was yet limited. Mixed results were due to selection variability criteria, variability of supplementation, and short follow-up intervals.