Docosahexaenoic acid supplementation for children with attention deficit hyperactivity disorder: A comprehensive review of the evidence

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Abstract

Attention deficit hyperactivity disorder (ADHD) is considered the most common behavioural disorder in school-age children. ADHD is a complex and multifactorial disorder characterised by a variety of symptoms, including concentration problems, excessive motor activity and impulsivity which interferes with execution of simple school tasks. Diagnosis has been essentially subjective, since no specific laboratory tests are available. However, ADHD remains overdiagnosed, probably due to social pressures for children to be successful in school from an early age, which leads parents to seek medical support. Although therapeutic approaches for ADHD have been essentially pharmacologic, in recent years several studies were performed to investigate the role of nutrition, especially omega 3 polyunsaturated fatty acid (omega 3-PUFA), in the development and treatment of this disorder. In this review, the authors gathered the most relevant evidence regarding omega 3-PUFA, mainly docosahexaenoic acid, as coadjuvant or as a single therapy, in the management of ADHD symptoms. The authors also reviewed this disorder’s current medical and therapeutic features.