Effects of Folic Acid on Appetite in Children with Attention Deficit Hyperactivity Disorder (ADHD) Treated with Methylphenidate: A Randomized Double-Blind Clinical Trial

Forough Riahi, MD; Ashraf Tashakori, MD; Ghazal Salehi Vanani, MD

Iranian Journal of Medical Sciences, 2017

Abstract

Background:
The highly effective medications in treating attention deficit hyperactivity disorder (ADHD) symptoms are stimulants like methylphenidate. However, they have adverse effects like reduced appetite. We investigated the effects of folic acid on reduced appetite caused by the use of methylphenidate in children with ADHD.

Methods:
This randomized double-blind clinical trial evaluated 70 outpatients, aged between 6 and 12 years, with a diagnosis of ADHD. The children were recruited from the Outpatient Child and Adolescent Psychiatric Clinic of Golestan Hospital (Ahwaz, Iran) between 2016 and 2017. The study subjects were randomly assigned to 2 groups: Group 1 received an average dose of methylphenidate (1 mg/kg) plus folic acid (5 mg/d) and Group 2 received an average dose of methylphenidate (1 mg/kg) plus a placebo (5 mg of sucrose) for 8 weeks. Assessments, comprising the Conners Parent Questionnaire, anthropometric measurements, and appetite questionnaire, were conducted by a psychiatrist at baseline and then at 2, 4, 6, and 8 weeks after the medication was started using repeated measure analysis. The data were analyzed with the Mann–Whitney U and ANOVA tests using the SPSS statistical software (v. 18.0).

Results:
Age and gender were not associated with the groups. Weight, height, and the body mass index were not changed during the study in both groups. ADHD symptoms significantly decreased in both groups during the trial; however, no difference was observed between the groups. Moreover, appetite was significantly improved in Group 1. Both medications were well tolerated.

Conclusion:
It seems that folic acid improved the reduced appetite caused by the use of methylphenidate in our children with ADHD.

Trial Registration Number: IRCT2016040927304N1