Effectiveness of Methylphenidate Supplemented by Zinc, Calcium, and Magnesium for Treatment of ADHD Patients in the City of Zahedan

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Abstract

Background:
This study investigates the therapeutic effect of a combination of methylphenidate and a zinc, calcium, and magnesium supplement for the treatment of attention deficit hyperactivity disorder (ADHD) in a population of children from the city of Zahedan.

Methods:
This clinical trial involved 40 patients with ADHD aged 6 to 12. Simple convenience sampling was conducted and the patients were randomly divided into two groups: a case group which received methylphenidate and a zinc, calcium, and magnesium supplement; and a control group which received methylphenidate plus a placebo. Numerical variables were presented as a mean (SD) and nominal and categorized variables were summarized by absolute frequencies and percentages. To compare the baseline measurements between the two groups, a chi-square test, an independent t-test, and a paired t-test were used. The data analysis was done using the statistical software SPSS, version 18.0.

Results:
The mean age of the children in the case group was 9.6 ± 1.5 years and that of the children in the control group was 8.9 ± 1.6 years (P = 0.235). Of the children, 32 were boys (80%) and 8 were girls (20%) (P = 0.429). The mean for symptom severity in the case group was 40.4 ± 2.4 before treatment, and 19.5 ± 6.1 after 8 weeks of treatment (P < 0.001).

Conclusions:
This study shows that a zinc, calcium, and magnesium supplement is effective in the treatment of ADHD.