

Clinical Trial of Efficacy Evaluation of Omega-3 with Risperidone on Seizures Frequency in Children with Refractory Epilepsy and Attention-Deficit/Hyperactivity Disorder

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Abstract

OBJECTIVES:

We aimed to answer the question whether or not previous antiepileptic drugs with combination of omega-3 and risperidone are more efficient than previous antiepileptic drugs with risperidone alone in decreasing of seizures monthly frequency of children with refractory epilepsy and attention-deficit/hyperactivity disorder (ADHD).

MATERIAL & METHODS:

In a randomized clinical trial (IRCT201604212639N18), participants referred to Pediatric Neurology Clinic of Shahid Sadoughi Hospital, Yazd, Iran from Jun 2015 were distributed randomly into two groups. In group I, one capsule of omega-3 daily and 0.5 mg of risperidone was divided into two doses with previous antiepileptic drugs and in group II, 0.5 mg of risperidone was divided into two doses with previous antiepileptic drugs were given. The drugs use was continued for three months and the children were followed up monthly for three consecutive months. Primary outcomes included seizure monthly frequency and good response (more than 50% of reduction in seizures monthly frequency). Secondary outcome was clinical side effects.

RESULTS:

Overall, 23 girls and 33 boys with mean age of 9.24 ± 0.15 yr (29 children in omega-3 group and 27 children in control group) were evaluated. Omega-3 therapy was effective in decreasing of seizures monthly frequency (10.41 ± 3.92 times vs. 17.01 ± 4.98 , $P=0.03$). Good response was seen in three children (11.1%) in control (95% confidence interval: 8%-22.8%) and in 9 children (31%) in omega-3 (95% CI: 47.83%-14.17%) group, which showed that omega-3 was more effective in seizure control. ($P=0.001$). Frequency of side effects was not different in the two groups (14.8 % in control vs. 20.7% in omega-3 groups, $P=0.5$).

CONCLUSION:

Omega-3 might be used as an effective and safe drug in seizures control of children with refractory epilepsy and ADHD.