

## Dose Supplemental Zinc Prevents Recurrence of Febrile Seizures?

How to Cite this Article: Shiva S, Barzegar M, Zokaie N, Shiva Sh. Dose Supplemental Zinc Prevents Recurrence of Febrile Seizures? Iranian Journal of Child Neurology 2011;5(4):11-14.

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Received: 21-Jun- 2011

Last Revised: 14 -Sep- 2011

Accepted: 21 -Sep- 2011

### Abstract

#### Objective

Febrile seizures (FS) are the most common form of seizures in children. Previous studies have suggested that zinc may play a role in the prevention of FS. However, there is limited information on the preventative effects of zinc against FS. This study aimed to determine whether prescribing zinc supplements could prevent FS.

#### Materials & Methods

In a randomized, placebo-controlled trial, 100 children who had experienced simple FS for the first time were recruited. Children in the case group (50 patients) were orally administered 1mg/kg/day zinc sulfate for 1 year, and children in the control group (50 patients) received a placebo. Serum zinc levels in both the control and case groups were measured at the start and at the end of the study, and recurrent cases of FS were recorded.

#### Results

The case group consisted of 29 boys (58%) and 21 girls (42%) with a mean age of  $2.06 \pm 0.83$ , and the control group consisted of 31 boys (62%) and 19 girls (38%) with a mean age of  $2.22 \pm 1.04$  years. An inverse relationship was found between febrile diseases and serum zinc levels. In other words, the occurrence of febrile diseases decreased with an increase in serum zinc levels. Eight children (16%) in the case group and 8 in the control group experienced recurrent FS within a year.

#### Conclusion

Supplemental doses of zinc (1mg/kg/day) reduced the rate of febrile illnesses, but did not prevent the recurrence of FS.

**Keywords:** Seizures; febrile; child; prevention and control