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
Short Communication

Serum Zinc Level in Children with Febrile Convulsion and its Comparison with that of Control Group

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Abstract:

Objective: Febrile convulsion is the most common disorder in childhood with good prognosis. There are different hypotheses about neurotransmitters and trace element (such as zinc) changes in cerebrospinal fluid and serum, which can have a role in pathogenesis of febrile convulsion. The aim of the present prospective analytical case-control study was to determine whether there was any changes in serum zinc level in children with febrile convulsion during seizure.

Methods: Ninety-two children aged 6 months to 5 years were divided into three groups: group A, 34 children with febrile convulsion, group B, 40 children having fever without convulsion, and group C, and 18 children with non-febrile convulsion. Serum zinc levels for the three groups were estimated by atomic absorption spectrophotometry (AAS). Data were analyzed to compare zinc level among the three groups using appropriate statistical tools employing SPSS 13.

Findings: Serum zinc levels of groups A, B, and C had a mean value of 76.82 ± 24.36 mg/l, 90.12 ± 14.63 mg/l and 94.53 ± 17.39 mg/l, respectively. Serum zinc level of group A was lower than those of the other two groups ($P < 0.006$). It was also lower in group B than in group C ($P < 0.006$).

Conclusion: These findings revealed that serum zinc level decreases during infection; this decrease was more significant in patients with febrile convulsion.

Keywords:

Fever . Convulsion . Febrile convulsion . Serum zinc level

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