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The Relation Between Febrile Convulsions and Serum Zinc Level: A Hospital Based Study at AI Fayoum University Hospital

Abstract

Introduction: Febrile convulsion (FC), a common cause of seizures in young children. Febrile convulsion susceptibility has genetic predisposition and infections, other parameters are also considered in this regard. Zinc deprivation has been suggested to play a role in the pathogenesis of febrile seizures. The aim of this work was to find out the relation between serum zinc level and febrile convulsions. **Subjects and methods:** In this case-control study, 90 children with their first febrile seizure (case group) were compared to 90 children at the same age group having fever with no seizures (control group) regarding weight, height, head circumference and serum zinc level in Fayoum University hospital.

Results: Both groups were comparable regarding weight, height and head circumference. Mean levels of serum zinc were significantly lower in cases (68.32 μg/dl) compared to controlled (93.14 μg/dl), ($p < 0.001$). A significant statistical difference was found regarding hypozincemia ($p < 0.001$). **Conclusion:** This study showed lower levels of serum zinc in children with their first febrile seizure than febrile children who did not develop febrile seizure and the difference is statistically significant.