Original Article

Clinical risk factors of febrile seizure in children in a university hospital in Bushehr port

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ABSTRACT

Background: Although the majority of febrile seizures are benign, it is clinically important to understand the underlying mechanism. In this study, we investigated characteristics of febrile convulsion and factors related to its recurrence and its relapse during a hospital course. Methods: A total of 102 patients with febrile seizure who were admitted serially at Fatemeh Zahra (S) University Hospital in Bushehr port were investigated. Demographic information and data of the history and physical examination were recorded. Children under the age of five with temperature of more than 37.8°C or with history of fever accompanied by seizure entered the study; those with meningitis or encephalitis according to the results of lumbar puncture or clinical diagnosis were ruled out. Results: Mean age of patients was 24±13.1 months, the most frequent type of convulsion was tonic-clonic (60.5%), and the least were atonic and myoclonic (each 7.9%). Focal convulsion was determined in 13.0% and complex type was observed in 32.5% of patients. Family history of febrile seizure was found in 59.0%. Female sex (RR=2.68, 95% CI: 1.20-5.99), history of previous febrile seizure (RR=2.56, 95% CI: 1.11-5.95), age at initial febrile seizure (RR=2.7, 95% CI: 1.16-6.29), and complex type of seizure (RR=3.86, 95% CI: 1-14.97) increased the risk of seizure relapses in a hospital course ($P<0.05$). Conclusion: Gender, history of previous febrile seizure, age at initial febrile seizure, and complex type of seizure increase the risk of recurrence of febrile seizure during hospital course. Further studies for assessing the long term effects of these factors on recurrence will determine children who need more medical attention in the future.

Keywords: fever, seizure, tonic-clonic, atonic, myoclonic

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