

البحث السابع

Interleukin-1 β -511 and interleukin-6 gene polymorphisms in Egyptian children with febrile seizures

Abstract:

Purpose: to determine whether interleukin-1 β -511 promoter polymorphism (IL-1 β -511 C/T) and Interleukin-6 gene polymorphism ($_597$) (IL-6), contribute to the susceptibility of Febrile Seizures (FS). **Method:** A case-control study was conducted on 91 children. It included 49 patients with FS and 42 healthy control subjects. They were subjected to full medical history, general and neurological examination and E.E.G. IL-1 β ($_511$) polymorphism and IL-6 ($_597$) polymorphism genotyping by RFLP (Restriction fragment length polymorphism) were done for all participants.

Results: Twenty-six patients (53.1%) had complex FS. IL-1 β ($_511$) gene polymorphism and IL-6 ($_597$) gene polymorphism were more statistically significant in FS. IL-1 β ($_511$) gene polymorphism was more sensitive specific and accurate in FS than IL-6 ($_597$) gene polymorphism.

Conclusions: Our data support the contention that interleukin-6 and Interleukin-1 β single-nucleotide polymorphisms play a role in the etiopathogenesis of febrile seizures. Neither Interleukin-1 β ($_511$) gene polymorphism nor interleukin-6 ($_597$) gene polymorphism is affected by type of FS (whether simple or complex).

Keywords: Febrile convulsion; IL-1; IL-6; simple and complex FS.