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The role of cytokine gene single nucleotide polymorphism in the development of recurrent acute otitis media

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Abstract

The study aimed at examining the role of single nucleotide polymorphism (SNP) of cytokine genes in the development of recurrent acute otitis media (AOM) among children. Single nucleotide polymorphism of IFN-γ, IL-6, IL-10, TNF-α, and TGF-β1, were analyzed by the polymerase chain reaction with sequence-specific primers (PCR-SSP) in 82 children with recurrent AOM and compared with a similar control group. There was a significant higher incidence of IL-10 polymorphisms (loci -592, -819 and -1082) in children with recurrent AOM (*P*=0.0137, 0.0137 and 0.0072, respectively). However, there was no significant difference in the distribution of other cytokine genotypes between the two study groups. Among the 5 studied cytokine genes, only IL-10 loci showed significant correlation to the development of recurrent AOM.

Keywords: Cytokines; Gene polymorphism; Otitis media

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