

Abstract

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Apolipoprotein epsilon4 allele is associated with psoriasis severity.

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BACKGROUND: Many reports provided strong evidence of the influence of genetic factors in the pathogenesis of psoriasis (Ps). A higher prevalence of lipid disorders in psoriatic patients has been reported. Because apolipoprotein E (apoE) is involved in lipid metabolism, APOE gene variants could be candidates to influence Ps-risk. However, data about the potential influence of the APOE genotypes in Ps are inconclusive.

OBJECTIVE: Our objective was to investigate the relationship between the common APOE-epsilon2/epsilon3/epsilon4 variation and Ps in a Caucasian population.

METHODS: Our study involved 331 unrelated Ps-patients and 400 healthy controls. Patients and controls were genotyped for the APOE-epsilon2/epsilon3/epsilon4 polymorphism, and allele and genotype frequencies were statistically compared between the two groups and between patients according to disease severity. Mean lipid values were also compared between the APOE genotypes.

RESULTS: Allele and genotype frequencies did not differ between patients and controls. APOE-epsilon4 carriers were significantly more frequent in patients with severe Ps compared to controls ($P = 0.003$) and to non-severe Ps ($P = 0.017$). No significant difference in mean lipid values was found between the APOE genotypes.

CONCLUSION: The APOE-epsilon4 allele could be a risk factor for developing a severe form of psoriasis.

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