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Tumor necrosis factor- αgene polymorphisms at site 308 substitution as predisposing factor for acne vulgaris in Iraqi patients

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Tumor necrosis factor-α (TNF-α) is a pro-inflammatory mediator occasionally implicated in Acne vulagaris pathogenesis. The gene encodes this factor shows high polymorphism especially in the promoter region. Total of 100 Iraqi patients with Acne vulgaris compared with 50 healthy individuals have screened for TNF-α polymorphism at position-308 using PCR-RFLP technique, the conventional PCR products have restricted by *NCO* I restriction enzyme. This study was conducted during the period Dec. 2011-Feb. 2012. The homozygous G/G genotype, the heterozygous G/A genotype, and the mutant A/A have detected in frequencies; 29%, 67%, and 4%, respectively, in the patients group compared with 58%, 30%, and 12%, respectively in control group. In addition, the significant higher expression of G/A genotype in patients group has conferred etio-pathogenecity ($p \leq 0.001$, OR=4.74, and Etiologic Fraction=0.529). Whereas, the G/G genotype had rather conferred a preventive role as it has decreased significantly in patients group (OR=0.30, Protective Fraction=0.408). In association with the gender, severity of the disease and other possible predisposing factors, we may conclude that TNF-α-308 G/A genotype may contribute to the predisposition of Acne vulgaris, there was significant association between minor A allele and the severity of the disease in the female.

Biography

Hammady Al Hilali studied B.Sc in 1987, M.Sc. in 1996, from Baghdad University College of Science, Iraq and pursued Ph.D. in 2006 in Immunology. He has more than thirteen published papers and supervising more than thirteen Master's and Ph.D. students in Medical Microbiology. He is Member of department of Medical Microbiology, College of Medicine, Al-Qadisiya University. His Research focuses on the immunology of major auto-immune disease, IBD.

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