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## Proinflammatory cytokine gene polymorphism and susceptibility to vitiligo in Saudis

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Vitiligo is a puzzling disorder characterized by the appearance of white patches resulting from the loss of functional melanocytes and melanin from the skin. The etiology of vitiligo is unknown however, several hypotheses including an autoimmune origin, have been proposed. Tumor necrosis factor (TNF)- $\alpha$ , a pleiotropic pro-inflammatory cytokine, has been shown to play a critical role in several autoimmune diseases including vitiligo. The aim of present study was to determine the association of TNF- $\alpha$  and TNF- $\beta$  gene polymorphism with vitiligo. TNF- $\alpha$  and TNF- $\beta$  gene were amplified in 323 Saudi subjects including 123 vitiligo patients and 200 matched controls using polymerase chain reaction. The frequencies of the allele A and genotype GA of TNF- $\alpha$  (-308G/A) were higher and the frequencies of the allele G and GG and AA genotypes were significantly lower in vitiligo patients compared with those in controls. These findings suggested that genotype GA-positive individuals at position -308 of TNF- $\alpha$  are susceptible to vitiligo, whereas the GG and AA genotypes might exert a protective effect. The results of TNF- $\beta$  intron 1 (+252) polymorphism showed a substantial boom within the frequency of the GG genotype and allele G (TNF- $\beta$ 1-allele) in vitiligo sufferers, suggesting a susceptibility of the GG genotype and allele G for vitiligo. by using evaluation, the excessive frequency of the GA genotype in controls would possibly indicate a protective effect. The present study strongly supports a link between TNF- $\alpha$  (308G/A) and TNF- $\beta$  intron 1 (+252A/G) polymorphisms and vitiligo in Saudi patients.

### Biography

Fahad Al-Harhi has completed his MBBS from King Saud University of Riyadh, Saudi Arabia and has received his MD in Dermatological and Venereal Diseases from Germany. He is a Senior Consultant in Department of Dermatology, PSMCC, Riyadh, Saudi Arabia. He has published 15 papers in reputed journals. He is associated with several ongoing projects on genetic basis of dermatological diseases in Saudis.

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