

# 3<sup>rd</sup> WORLD DERMATOLOGY AND COSMETOLOGY CONGRESS

April 11-12, 2019 | Barcelona, Spain

Abdulrahman Al-Asmari, Res Clin Dermatol 2019, Volume 2

## GENETIC STUDIES ON PSORIASIS: ROLE OF METHYLENETETRAHYDROFOLATE REDUCTASE (*MTHFR*) C677T GENE POLYMORPHISM

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Psoriasis is a chronic, immune-mediated inflammatory skin disease affecting approximately 120-180 million people worldwide. The pathogenesis of psoriasis is very complex and several different etiological hypotheses including those of the genetic, environmental and immunological factors have been suggested to explain its pathogenesis. *Methylenetetrahydrofolate reductase (MTHFR)* has been linked with the etiopathogenesis of psoriasis with inconsistent results. The aim of this study was to determine if the *MTHFR* (C677T) polymorphism confers susceptibility to psoriasis in Saudi population. We evaluated *MTHFR* C677T polymorphism in 106 Saudi psoriasis vulgaris patients and 280 matched healthy controls. *MTHFR* C677T genotyping was performed by PCR-RFLP technique. Allele T and genotypes CT, TT were found to be increased while allele C and genotype CC significantly decreased in psoriasis patients than controls ( $p < 0.001$ ). This study indicates that the T-allele and T-containing genotypes (TT, CT) of *MTHFR* C677T polymorphism are significantly associated with psoriasis while C-allele and CC genotype may be protective for it. BMI, fasting glucose, triglycerides, total cholesterol, low-density lipoprotein and C-reactive protein, known markers for cardiovascular diseases were found to be significantly elevated in the patient group as compared to the controls. It is concluded that the *MTHFR* C677T polymorphism increases psoriasis risk in Saudi patients and ultimately may lead to cardiovascular and other systemic disorders.

## BIOGRAPHY

Abdulrahman Al-Asmari has completed his PhD in 1996 from University of London, London, UK. Earlier he received MPhil (biochemistry) on his work entitled "Proteomic studies of snake venoms and their biological activity" from London, UK. He is the director of Scientific Research Center, MSD Riyadh Saudi Arabia. He has over 100 publications that have been cited several times, and has been serving as an editorial board member of various journals.

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