

Jordan University of Science and Technology

Association between Resistin Gene Polymorphisms and Atopic Dermatitis

Authors: Saleem A Banihani, Khawla F Abu-Alia, Omar F Khabour, Karem H Alzoubi

Abstract: Atopic dermatitis (AD) is a chronic, relapsing, and inflammatory skin disorder. It is characterized by an inappropriate skin barrier function, allergen sensitization, and recurrent skin infections. Resistin is an adipokine expressed mainly in macrophages and monocytes; it has a role in the inflammatory process and is associated with multiple inflammatory human diseases; however, only few studies linked resistin to atopic dermatitis. This study tested the association between G>A (rs3745367) and C>T (rs3219177) single nucleotide polymorphisms (SNPs) of the RETN gene with atopic dermatitis. In addition, it explored the relationship between serum resistin protein and atopic dermatitis. To achieve objectives of this study, 162 atopic dermatitis patients and 161 healthy participants were recruited in the study. A significant association was detected between rs3745367 and atopic dermatitis with age and gender specificity ($p < 0.05$), while no significant association between rs3219177 and atopic dermatitis was found ($p > 0.05$). For the serum resistin levels, a significant decrease was indicated in atopic dermatitis patients compared to healthy subjects ($p < 0.05$). In conclusion, rs3745367 may play a gender and age-specific role in atopic dermatitis. In addition, the significant decrease in the resistin protein level confirmed this association.