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### **RGPAV Resistin gene polymorphism in acne vulgaris. Does It Have an association?**

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#### **Background:**

Acne vulgaris is a skin disease that inflames the sebaceous gland with multiple etiologic agents. Many pro-inflammatory adipokines contribute to this pathogenesis. Resistin is one of them, which acts as a pro-inflammatory mediator that activates kappa B, a nuclear factor, and c-Jun N-terminal kinases pathways inducing toll-like receptor-2, interleukin-1, 6, and Tumor Necrosis Factor Alpha (TNF-  $\alpha$ ). The Resistin gene affects the promoter and intron regions' polymorphisms' expression levels.

#### **Aim of the work:**

This study aims to study the association of Resistin gene polymorphisms (RETN -420 C/G) and the development of acne vulgaris in Egyptian patients and whether it is associated with serum Resistin's levels and disease severity.

#### **Subjects and Methods:**

Resistin (RETN) gene (rs1862513) genotypes were identified using the technique of Restriction Fragment Length Polymorphism (RFLP) and serum resistin presence was assessed by enzyme-linked immunosorbent assay in 40 patients suffering from acne vulgaris with 40 age- and sex-matched healthy control subjects as a cross-reference. Patients were divided into mild, moderate, and severe groups. The GAGS (Global Acne Grading System) was used to assess the severity of patients' acne.

#### **Results:**

CG and GG genotypes were immensely present in cases ( $P = 0.006$ )  $OR_1 = 4.43$  CI 95% (1.53–12.7) and  $OR_2 = 5.47$  CI 95% (0.99–30.1) where G-allele statistically dominated in the patient group where  $P = 0.001$  and  $OR = 3.57$  CI 95% (1.63–7.80). Also, a positive significant relationship between RETN genotypes and serum Resistin levels and GAGS score was present.

#### **Conclusion:**

RETN genes rs1862513 GG and G allele are correlated to the development and severity of acne vulgaris in a sample of the Egyptian population

#### **Biography:**

Taghreed Ahmed has completed her MB.BCH, at the age of 25 years from Menoufia University, EGYPT and passed first & second parts of Master degree of Dermatology, Andrology & STD from Menoufia University faculty of Medicine. she is General Practitioner in Health Sector, Dermatology Resident in Berket Al Sabaa General Hospital Menoufia Governorate EGYPT, previous position General Practitioner in health care center.

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