عنوان مقاله:

The Insulin-like Growth Factor-1 (G> A) and 5,10-methylenetetrahydrofolate Reductase (C677T) Gene Variants and the Serum Levels of Insulin-like Growth Factor-1, Insulin, and Homeostasis Model Assessment in Patients with Acne Vulgaris

محل انتشار:

فصلنامه آسیب شناسی ایران, دوره 15, شماره 1 (سال: 1399)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Sakineh Zinati-Saeed - *Department of Clinical Biochemistry, Medical School, Kermanshah University of Medical Sciences, Kermanshah, Iran*

Ebrahim Shakiba - *Department of Clinical Biochemistry, Medical School, Kermanshah University of Medical Sciences, Kermanshah, Iran*

Ziba Rahimi - *Medical Biology Research Center, Research Institute for Health Technology, Kermanshah University of Medical Sciences, Kermanshah, Iran*

Mona Akbari - *Medical Biology Research Center, Research Institute for Health Technology, Kermanshah University of Medical Sciences, Kermanshah, Iran*

خلاصه مقاله:

Background & Objective:To find an association between gene variants of insulin-like growth factor-1 (IGF-1) and 5,10-methylenetetrahydrofolate reductase (MTHFR) with the risk of acne vulgaris (AV).Methods:In a case-control study, we investigated 150 AV patients and 148 healthy individuals (aged 18-25 years) for the IGF-1 G> A and MTHFR C677T polymorphisms, as well as the serum levels of IGF-1, insulin, and the homeostasis model assessment of insulin resistance (HOMA-IR). The serum biochemical parameters and the genotypes of IGF-1 G> A and MTHFR C677T were detected by using appropriate kits and polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) methods, respectively.Results:The frequencies of IGF-1 and the MTHFR polymorphisms were not significantly different comparing patients and controls. The serum level of IGF-1 was 179.8±72.8 µg/L in AV patients compared to 164.6±63.7 µg/L in controls (P=0.056). The serum level of insulin in female patients was significantly higher than controls. The HOMA was 3.54±5.6 in patients compared to 1.16±1.4 (P<0.001) in controls. Significantly higher levels of fasting blood sugar (FBS), total cholesterol, and low-density lipoprotein-cholesterol (LDL-C) were detected in female patients than controls. However, the level of estradiol was significantly lower in female patients than in controls. In females, the presence of the MTHFR T allele was associated with significantly higher levels of FBS and LDL-C, as well as a significantly lower level of estradiol compared to those carriers of the C allele.Conclusion:We found the absence of an association between IGF-1 and MTHFR polymorphisms with the risk of AV. However, increased insulin, IGF-1, and HOMA levels in AV patients indicated the effect of insulin and insulin resistance in the risk of AV and its severity.

کلمات کلیدی:

Acne vulgaris, Methylenetetrahydrofolate reductase, Insulin-like growth factor-1, Insulin, Homeostasis model

assessment

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/1007059