ABSTRACT BOOK ABSTRACTS



GENETICS AND GENODERMATOSES

## GENETIC PREDICTORS OF ATROPHIC ACNE SCARS.

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Introduction: The pathogenesis of atrophic scar formation is complicated, it is believed that it is associated with inflammatory mediators and enzymatic degradation of collagen fibers and subcutaneous adipose tissue. It is unclear why some patients with acne develop scarring, while others do not, because the degree of acne does not always correlate with the frequency or degree of scarring. Perhaps there is a hereditary or genetic predisposition to their formation.

Materials and methods: With the aim of studying the frequency distribution of gene polymorphism of ESR1, Col1A1, Col1A2, Col3A1, Col5A1, MMP1, MMP12, MMP2, MMP3, MMP7 and analysis of their association in patients with atrophic acne scars were observed 40 patients (women) aged 15 to 27 years with an established diagnosis of acne/acne, complicated by atrophic scars. All patients were divided into two equal groups of 20 people: group A (acne complicated by atrophic scars) and group B (acne, without cicatricial changes). All patients underwent a genetic study of the distribution frequency of gene polymorphism ESR1, Col1A1, Col1A2, Col3A1, Col5A1, MMP1, MMP12, MMP2, MMP3, MMP7.

Results : Comparative analysis of gene polymorphism ESR1, Col1A1, Col1A2, Col3A1, Col5A1, MMP1, MMP12, MMP2, MMP3, MMP7 established statistically significant differences in the distribution of alleles between groups of patients. In group A there was a high value of the cipher alleles of genes Col1A2, MMP3, the average value of the cipher alleles of genes ESR1, MMP1 MMP7, at the same time, the value of alleles of the studied genes in group B showed low values.

Conclusion: Thus, based on the results of the study, we can assume the presence of certain genetic predictors of the formation of atrophic acne scars. Further research in this field is promising in order to determine genetic risk factors and prediction of predisposition to atrophic scars.





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