



GENETICS AND GENODERMATOSES

GENETIC PREDICTORS OF HYPERPIGMENTATION

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Introduction: The search for gene associations over the past years has led to discovery of many different regions of chromosomes associated with the most common diseases and pathological conditions, including hyperpigmentation.

Materials and methods: Under supervision there were 38 patients (32 women, 6 men) aged from 24 to 68 years with diagnosis of solar lentigines, melasma, post-inflammatory hyperpigmentation. Phototypes I - II of Fitzpatrick.

All patients depending on diagnosis were divided into 3 groups. Group A: patients with a diagnosis of melasma (12 patients); group B: patients with a diagnosis of post-inflammatory hyperpigmentation (14 patients); group C: patients with a diagnosis of solar lentigines (12 patients). The control group consisted of 20 healthy volunteers.

All patients underwent a genetic analysis of HFE (rs1799945, rs1800562), XRCC1, MMP1, GSTT gene polymorphism.

Results: Comparative analysis of polymorphism of genes MMP1, XRCC1, HFE (rs1799945, rs1800562), GSTT determined a statistically significant difference in the distribution of alleles between the three groups of patients.

In patients with melasma noted the high value of the cipher alleles of the genes MMP1, XRCC1, GSTT, at the same time the cipher allele of the gene HFE (rs1799945, rs1800562) showed average values. In patients with post-inflammatory pigmentation was noted a high value of the cipher alleles of the genes MMP1, HFE (rs1799945, rs1800562), GSTT, at the same time the cipher allele of the gene XRCC1 showed average values. Patients with solar lentigines was observed high value of the cipher alleles of the genes MMP1, XRCC1, GSTT, at the same time the cipher allele of the gene HFE (rs1799945, rs1800562) showed average values. Thus, there is a similar result of genetic studies in groups A and C.

Conclusion: Thus, according to the results of the study identified a set of genetic predictors that significantly affect the risk of non-neoplastic hyperpigmentation.

