# IMMUNOGENETIC CHARACTERISTICS OF THE CLINICAL COURSE OF ALLERGIC RHINITIS IN THE UZBEK POPULATION

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**Introduction.** Over the past decade, according to WHO, there has been an increase in the incidence of allergic diseases. The pathogenesis of allergic diseases is being closely studied, in particular, the role of Th17 cells involved in the pathogenesis of allergic rhinitis and characterized by the predominant synthesis of cytokines IL-17A and IL-17F has been proven.

**Aim:** to study the polymorphism of the IL-17A rs2275913 gene in the Uzbek population and the role in the clinical course, the effectiveness of pharmacotherapy of allergic rhinitis with antihistamines.

**Material and methods.** The study included 118 patients with allergic rhinitis. In 112 patients, seasonal allergic rhinitis was diagnosed with an exacerbation in summer (94.9%) and in the spring-summer period of pallination (82.2%). The control group included 200 practically healthy individuals. Genotyping of the IL17A rs2275913 polymorphism was performed using the real-time polymerase chain reaction (Real-Time) "SNP-EXPRESS"-RV method.

**Results.** Patients with allergic rhinitis complained of seasonal and year-round symptoms, which included rhinorrhea, nasal obstruction, sneezing, itching, burning sensation in the nose, sniffling, snoring, apnea, voice change and nasality.

In these patients, a significant increase in the concentration of IL-17 in the blood serum was revealed before the start of treatment. When analyzing the frequency distribution of the G and A alleles of the IL17A gene, it was registered that the A allele of the IL17A gene was the dominant allele (38.7% versus 19.5%, respectively, $\chi2=15.9$; $p<0.05$).

The G/G genotype of the A/G polymorphism of the IL17A gene was significantly less common in the group of patients with AR compared with practically healthy individuals in the control group. An increase in the frequency of occurrence of the heterozygous variant of the G/A allele of the IL17A gene was found in patients with AR compared with the control (56.9% versus 30.2%, respectively, $\chi2=11.9$; $p<0.05$; OR=3.1 ). When comparing the A/A genotype of the IL17A gene in groups of patients with AR and healthy individuals, it was noted that the A/A genotype in the group of patients with AR occurs significantly more often than in the control group (14.1% compared with 5.9%, respectively, $\chi2=4.6$; $p<0.05$).

**Conclusion.** The results of this study showed that the AA rs2275913 genotype of the IL-17A gene is associated with the development of allergic rhinitis in the Uzbek population.

This polymorphism can serve as a predictor of allergic rhinitis and provide useful information for the development and implementation of pathogenetically sound methodological approaches to the treatment and prevention of allergic rhinitis.