

## **P206. Associations of vascular tone genes polymorphisms in pregnancy-induced hypertension among Uzbek women: a case-control study.**

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**Introduction.** Pregnancy-induced hypertension (PIH), including preeclampsia (PE), gestational hypertension (GH) and chronic hypertension are major cause of maternal and neonatal morbidity and mortality, affects 5% to 7% of pregnancies in the Western world. In Uzbekistan maternal mortality rate from PE rises up to 23%, without tendency to decrease. PE is thought to have an important genetic component.

**Objective** of the study was to examine genetic polymorphisms associated with the risk of pregnancy-induced hypertension and vascular tone markers among Uzbek women.

**Materials and methods.** A total of 78 cases of PE patients and 26 healthy pregnant female controls were recruited from the outpatient and inpatient sections. PE was diagnosed according to international protocols. All controls had a normal pregnancy without complications, hypertension and proteinuria.

**Results and discussion:** Polymorphisms of 4 genes which are responsible in the regulation of vascular tone were investigated: AGT rs4762 and rs699, AGTR rs5186 and AGTR2 rs1403543. Genotype distribution of all 4 polymorphisms was in Hardy-Weinberg equilibrium in both groups. Distribution of allele frequencies and genotypes polymorphisms of rs4762, rs699, rs5186, rs1403543 gene regulators of vascular tone in PE and control groups revealed risk and protective markers for this disease. Thus, relative risk allele T and TT genotype polymorphism rs4762 were 2.69 and 3,1 respectively; while G allele and GG genotype of this polymorphism can be regarded as a protective marker in the development of this pathology. As for rs4762 polymorphism of AGT gene no significant, whereas T allele polymorphism rs699 was thought to be risky in the development of PE. Thus, relative risk of T allele was 2.74 and TT genotype - 3.37. As for rs5186, rs1403543 polymorphism, no significant differences in the genotype distribution or allele frequencies.

**Conclusion:** Genetic associations performed in this study may be used as genetic markers of PE susceptibility, which will allow timely to group risk patients, to work out correct treatment, and preventive measures. But, very large studies or meta-analysis will be required to confirm these findings and refine estimates of the effect size. **Objective** of the study was to examine genetic polymorphisms associated with the risk of pregnancy-induced hypertension and vascular tone markers among Uzbek women.

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