

Association of polymorphic markers of the functional state of the fetus of pregnant women with preeclampsia

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Preeclampsia is a multisystem pathological condition that occurs in the second half of pregnancy (after 20 weeks), characterized by arterial hypertension in combination with proteinuria (≥ 3 g/l, in daily urine), often with edema and signs of organ/multisystem dysfunction. Preeclampsia (PE) is a serious complication of pregnancy, resulting in the onset of premature labor, detachment of normally situated placenta. The purpose of this study was to examine the Association of gene polymorphisms of the renin-angiotensin-aldosterone system with the functional status of the fetus of pregnant women with preeclampsia [1-4]. The study group included 132 pregnant women with preeclampsia. The average age of women surveyed was 27.98 ± 5.29 years. To assess the functional state of the fetus is determined by uterine-fetal-placental blood flow (index of resistance (IR) left and right uterine artery and umbilical artery) and basal heart rate of the fetus. All pregnant women carried out the typing of genetic polymorphisms of the renin-angiotensin-aldosterone system: angiotenzinogena (-6A/G AGT) and angiotensin-converting enzyme (I/D ACE). For the description of indicators were used the median (Me) and interval scale (Q25-Q75), Mann-Whitney test. As a result of the study revealed that pregnant women with genotype-6AA AGT, have lower basal heart rate of the fetus (median 137.0 BPM, interquartile range 130.0-146.0 BPM), in comparison with women with the genotype -6AG and -6GG AGT (median 143.0 beats/min, lower quartile – 136.0 beats/min, upper quartile – 152.0 beats/min, $p=0.02$). Reliable associations of polymorphism I/D ACE with the functional status of the fetus were not detected ($p>0.05$). Thus, when examining the associations consider genetic polymorphisms of the renin-angiotensin-aldosterone system with the functional status of the fetus the connection of genotype-6AA AGT with lower basal heart rate of the fetus had been established.

References

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Key words

Preeclampsia, fetus.