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COMPLICATION IN CASE OF THE PLACENTAL DYSFUNCTION IN PREGNANT WOMEN WITH HYPERANDROGENISM

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Introduction. Under current conditions, among the factors leading to perinatal and antenatal fetal death, the endocrinopathies of various origin, including hyperandrogenism (HA) become more important. During pregnancy the concentrations of human chorionic gonadotropin (HCG) and pregnancy-associated plasma protein-A (PAPP-A), can be indicative not only of some defects of fetal development but also of latent defects of implantation and formation of the placenta in the early period, which will be manifested in the second half of gestation with the following complications: arrest of fetal development, miscarriage to 22 weeks, preterm labor to 37 weeks, and gestosis. To diagnose the risks of arrest of the fetal development during first terms of pregnancy in women with low levels of PAPP-A was historically first clinical application to detect PAPP-A in the blood serum suggested at the beginning of 1980-s.

Objective. To study a prognostic value of the concentrations of PAPP-A and HCG concerning the origin of the primary placental dysfunction in pregnant women with hyperandrogenism, to estimate the endocrine function of the placenta in these individuals as the basis in the diagnostics of pathological conditions of the intrauterine fetal state.

Materials and methods. The core group (30 patients) - included pregnant women with hidden forms of HA. The control group consisted of 30 pregnant women without gestational complications. These are the results of the first biochemical screening. Pregnant women of "risk group" as to the placental dysfunction in 16-18, 20-24 weeks of gestation were examined for reproductive hormones, placental lactogen (PL), estriol (E3) and progesterone (PR) by standard methods.

Results. In the statistical analysis of the results of the first biochemical screening, we noted that the level of HCG in the blood averaged 24198±0,5 mIU / ml in the study group, which is 36,7 % lower than the same index in the control group. The level of PAPP-A in the serum of pregnant women with hyperandrogenism was 1960±0,9 mIU /ml, which is 45,8% less than in the control group.

We have established that in pregnant women "at risk" on the origin of placental dysfunction, mean values of reproductive hormones were significantly lower during their whole pregnancy. PR level in 16-18 weeks was 34,58±0,48 nmol/L in 20-24 weeks - 72,16±3,67; ($p<0.0001$). The most significant difference between the groups of PL (more than 3-fold) occurred at 20-24 weeks (control group - 3,48±0,04 mg/l, the main group - 1,13±0,02 mg/l; $p<0.0001$), and estriol concentration after 20-24 weeks of gestation it was 3 times lower - 28,06±0,39 nmol/L than in the control group ($p < 0.0001$).

Conclusion. Based on the results of the first biochemical screening in pregnant women with hyperandrogenism we can detect the risk of a number of pregnancy complications (not just defects) that can help in developing an individual program of pregnancy.