role. The study of ultrasound changes in pregnant women with preterm pregnancy in the first trimester of pregnancy is important prognostic value. An ultrasound examination of 40 pregnant women with miscarriage was performed.

Retrospective analysis showed that in pregnant women in the experimental group, 82.3% had a phenomenon of threat of termination of pregnancy and in 52% - in preterm pregnancies. A total of 69.1% of the pregnant women examined had a history of spontaneous abortions up to 13 weeks of gestation, and 13.5% of late abortions in the period of 22-25 weeks of gestation. In 34.5% of pregnancies, pregnancy was accompanied by hemorrhage in the early embryonic period and partial chorionic detachment. In 16.2% of cases, pregnant women had a history of up to 10 weeks of pregnancy.

In order to identify the peculiarities of growth and development of the fertile egg in the first trimester of pregnancy, an ultrasound evaluation of the embryo structures, the cardiac performance of the embryo and the volume of the retrochorial hematoma were performed.

The observation of 11 (27.5%) patients with a history of pregnancy miscarriage revealed a lag of coccygeal-parietal size (CTE) from the expected values by 6-10 days. Repeated ultrasound scans performed after 2 weeks showed a positive increase in embryometric parameters in 9 (22.5%) observations and their compliance with the gestational period. In 3 (7.5%) pregnant women, the CTE lag of the embryo from the gestational term was not more than 7 days.

Ultrasound examination of 9 (22.5%) out of 40 patients determined delay of CTE of the embryo more than 2 weeks of gestation. It should be noted that in 4 of these observations in an embryo CTE of less than 18 mm, all pregnancies resulted in involuntary miscarriage. At the same time, with CTE greater than 18 mm, no pregnancy termination was observed in any observation (5).

When evaluating the cardiac performance of the embryo in the group of pregnant women with habitual pregnancy loss in most of the observations (70%), the dynamics of changes in the heart rate (HR) of the embryo corresponded to the parameters of physiologically proceeding pregnancy. Thus, the heart rate of the embryo gradually increased from 6 weeks of gestation (107 ± 12 beats / min) to 9-10 weeks (176 ± 11 beats / min), then to 12 weeks decreased to 159 ± 6 beats / min. The highest heart rate (180 beats / min; $p < 0.05$) was also observed at 9 weeks of gestation. However, cardiac activity of the embryo was not registered in 3 (5.71%) observations of an embryo CTE of 14 mm or more (14-26 mm), which made it possible to diagnose a developing pregnancy. In 9 (22.5%) observations the heart rate of the embryo did not meet the normative values. Tachycardia was noted in pregnant women with clinical manifestation of a threatening interruption in 5 (12.5%) embryos. 3 observations of them revealed a pronounced increase in the heart rate of the embryo within 190-210 beats / min against the background of spontaneous abortion. A decrease in heart rate (bradycardia up to 90 beats / min) was detected in 4 (10.0%) patients with clinical manifestation of threatening involuntary miscarriage and subsequently diagnosed with fetal death. It should be noted that in any observation the chromosomal anomaly of the embryo / fetus was not detected.

Embryo CTE values are most informative for predicting the course and outcome of the gestational process in the first trimester of pregnancy. Embryo / fetal bradycardia is an ultrasound examination that indicates the possibility of a pathological course of the gestational process that, in the absence of timely correction, can cause perinatal loss.

Marynchyna I.M.

ASSESSMENT OF THE CURRENT CIRCULATION IN THE SPIRAL ARTERIES IN THE CENTRAL AND PERIPHERAL PART OF THE PLACENTA

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Taking into consideration that one of the leading causes of the placental dysfunction (PD) development and syndrome of the fetal development retardation (FDRS) is the disturbance of the uterine-placental circulation (UPC), comparative diagnostics of the circulation status in the vascular

system of mother-placenta-fetus is of great importance to obtain complete state of hemodynamics changes.

Object: to determine the blood flow state in the spiral arteries of the central and peripheral parts of the placenta in the dynamics of pregnancy in women with PD, on the base of which to elaborate new diagnostic and prognostic criteria of the fetus and newborn state.

86 patients in 6-8, 9-12, 16-18 weeks of pregnancy, who were divided retrospectively into groups depending upon the results of pathomorphology investigation of the placenta and presence or absence of FDRS signs in the newborns have been examined. The first group consisted of 30 pregnant women with compensated PD and fetus normotrophy (group of comparison), group II – 56 pregnant women with sub-or decompensated PD (basic group).

The ultrasound and dopplerometric methods were the main in our research. At dynamic dopplerometry of the pregnant women of the group of comparison it has been established that the resistance index of the spiral arteries (SA) in the central part of the placenta in the pregnancy dynamics didn't decrease, blood flow state was different in the peripheral part of the placenta. Resistance index (RI) meanings were higher in this part of the placenta than in the central part in all terms of examination. In the pregnancy dynamics the blood flow intensity increased in the peripheral part of the placenta, what manifested in RI decrease. Our results show that the blood flow intensity was higher in the central part of the placenta in the group of comparison in all terms of examination, than in the peripheral part, moreover, its per cent difference was the highest possible in 9-12 weeks ($p< 0.01$) and decreased during pregnancy almost three times (from 18.8% to 6.5%) at the expense of the hemodynamics improvement of the peripheral placenta areas.

Insignificant per cent difference in the blood flow intensity of the various areas of the placenta was observed in 16-18 weeks of pregnancy in women with the syndrome of the fetus development retardation (FDRS). In the peripheral part of the placenta it increased 2.3%. Treatment of IR SA of the peripheral part of the placenta to the central part had the meaning less than one unit in 16-18 weeks in 14 % of the pregnant women of the group of comparison and in 79.2% of the main group, herein, in 87.8% of pregnant women with FDRS.

Analysis of the average values of IR in SA has shown that in the pregnant women of the basic group indices were higher than in the group of comparison ($p<0.01$), and in the first of its subgroup was higher than in the second one ($p<0.05$-0.001), and in the dynamics of pregnancy they decreased in the basic group and in its second subgroup till 16-18 weeks ($p<0.05$), and in pregnant women with FDRS didn't have a reliable decrease.

The exposed data enabled to establish the diagnostic parameter of the placental dysfunction, determined in 9-12 weeks of pregnancy concerning the resistance indices of the spiral arteries of the peripheral part of the placenta to the central one, and to diagnose placental dysfunction (PD) at the value less than 1.0, which in pregnancy dynamics is manifested in the form of sub-or decompensated type.

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MISCARRIAGE AND RETROCHORIAL HEMATOMA

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The formation of blood clots between the uterine wall and the chorion, when it is rejected from the uterus, is called in obstetrics - a retrochoric hematoma (RCG). It occurs mainly at threat of abortion, destruction of walls of vessels of a uterus.

Mechanical effects on the uterus, stress, physical activity, hormonal insufficiency, fetal egg abnormalities, inflammatory and neoplastic diseases of the uterus are among the multifaceted causes of RCG. The frequency of RCG in the first trimester of pregnancy is found in 3.0 % of pregnant women, which leads to the risk of negative complications on the part of the mother and the fetus (frequent surgery, preeclampsia).