



СЕКЦІЯ 9
АКТУАЛЬНІ ПИТАННЯ АКУШЕРСТВА, ГІНЕКОЛОГІЇ,
ДИТЯЧОЇ ТА ПІДЛІТКОВОЇ ГІНЕКОЛОГІЇ

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EVALUATION OF BLOOD FLOW IN THE SPIRAL ARTERIES DURING PHYSIOLOGICAL COURSE OF PREGNANCY IN THE EARLY GESTATIONAL AGE.

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Hemodynamic processes in the common functional mother-placenta-fetus system are one of the leading factors providing normal course of pregnancy, growth and development of fetus. According to a number of researchers placental dysfunction is a consequence of insufficient invasion of a trophoblast into the maternal spiral arteries, which together with lack of remodeling of uterine-placental arteries, preservation of muscular and elastic components in them result in dysfunction of blood supply to the placenta and considerable decrease of the uterine-placental blood flow.

Objective of the study was to investigate blood flow in the spiral arteries during physiological pregnancy in the early terms. 30 pregnant women in I trimester of gestation from 12 to 13 weeks + 6 days, from 14 to 17 weeks + 6 days and from 18 to 21 weeks + 6 days were included in the study in case of physiological pregnancy and endothelial dysfunction.

Doppler examination of blood flow in the spiral arteries of the fetus was conducted on the ultrasound diagnostic device "SonoAce 8000 Life" by means of the transducer with the frequency of 3,7 MHz. To provide reliability of the obtained results the filters with the transmission band 50-150 Hz were used to eliminate distortion of Doppler signal by the movement of vascular walls. Pulsation index (PI) was calculated as a ratio of difference between maximal systolic and final diastolic rates to average blood circulation rate, for spiral and uterine arteries, the results were averaged. Resistance index (RI) was calculated as a ratio of difference between maximal systolic and final diastolic rates to maximal systolic circulation rate in the vessels mentioned above.

The analysis of the obtained results determined that PI in the spiral arteries at the end of I trimester of pregnancy in the group of comparison was lower ($0,52 \pm 0,05$) than in women with non-manifested endothelial dysfunction ($0,58 \pm 0,06$) and clinical pathology of pregnancy against the ground of endothelial dysfunction ($0,65 \pm 0,06$). Similar dynamics to the indicated term of pregnancy was found in examination of PI in the uterine arteries – $0,94 \pm 0,06$, $1,06 \pm 0,08$ and $1,14 \pm 0,08$ respectively in pregnant women with physiological course of gestation and patients with clinical signs of threatened miscarriage. In case of gestational term 18-21 weeks + 6 days a tendency to further decrease of PI in the examined arteries was determined. In the spiral arteries PI decreased to $0,37 \pm 0,04$ (group of comparison) and $0,47 \pm 0,04$ (I group). Further examination of Doppler indices of the spiral arteries determined that in patients of I clinical group increased indices ($0,53 \pm 0,05$ and $0,69 \pm 0,06$) of vascular resistance were found as compared to physiological pregnancy ($0,46 \pm 0,06$ та $0,66 \pm 0,07$) at the end of I trimester of pregnancy. At the beginning of I trimester (14 – 17 weeks – 6 days) RI similar to the previous indices and PI was characterized by a tendency to reduce in women with physiological course of pregnancy $0,43 \pm 0,04$ and $0,55 \pm 0,05$ for spiral arteries and uterine arteries respectively.

Therefore, Doppler examination conducted at the beginning of the 12th weeks of gestation appeared to be a valuable instrument to determine the group of pregnant women with high risk. The obtained results were indicative of the fact that in case of pre-nosologic and manifested PD the indices of pulsation and resistance were higher than those in case of physiological pregnancy both in spiral arteries and uterine arteries.

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PROTEIN SYNTHETIZING FUNCTION FOR ANOMAL PLACENTATION IN THE 1-st TRIMESTER OF GESTATION

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Among the factors that negatively affect on the functioning of the fetoplacental system, the anomalies of attachment of the fetal egg play an important role, in particular, which leads to the development of placenta dysfunction. An extraordinary diagnostic role in the development of placental dysfunction belongs to proteins in the area of pregnancy. According to the literature, trophoblastic β -glycoprotein (TBG) is a protein synthesized by syncytiotrophoblast during the pregnancy and is a specific marker of the fetal part of the placenta, the content of which correlates with the term of pregnancy, determining its level allows to evaluate objectively the function of the fetoplacental system at all stages of pregnancy development, and α -microglobulin fertility (AMGF) is synthesized in the epithelium of the endometrium of the uterus in the luteal phase of the menstrual cycle and in the placental degenerative tissue and plays an important role in implantation of the embryo, protecting it as a local immunosuppressant.

The purpose of the study was to investigate the cell-culture function in pregnant women with low chorion placement in the 1st trimester of gestation.

Under our supervision were 100 pregnant women. The main group of the investigation consisted of 50 pregnant women with low chorionic placement, 25 of these women had gestational periods of 5-8 weeks and 25 - 9-12