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## EFFECTS OF ENDOMETRIAL THICKNESS AND UTERINE BLOOD FLOW ON IVF OUTCOME

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**Objective and methods.** Research was undertaken aiming at determining what effect the condition of the endometrium on the day of the HG injection has on the results of the IVF.

**The research included:** a multi-faceted statistical analysis of the results of 271 cycles of IVF; prospective complex research of the ultrasound characteristics of the endometrium and Doppler indicators of the blood flow in the vessels of the uterus (56 patients); and retrospective analysis of the process and outcome of 265 IVF pregnancies.

**Results.** It was established that within the IVF program, 70% pregnancies occurred when the thickness of the endometrium on the day of HG injection ranged from 9-12 mm. The thickness of endometrium significantly influenced the frequency of the occurrence of pregnancy, the frequency of implantation and that of multiple-pregnancies ( $F=14,0$ ;  $p,0,001$ )

The lowering of the pulsation index (PI) indicators, and the intermittency or a absence of the final diastolic flow rate in spiral artery before the HG injection, signify a poor prognosis for the occurrence of the pregnancy in the IVF program

In the group of patients with an endometrial thickness of less than 8 mm on the day of HG injection, the frequency of ectopic pregnancies (8,3%) and the frequency of early term spontaneous abortions (27,2%) were 3,5 times higher than the patients with an endometrial thickness of over 8 mm (2,4% and 7,8% respectively).

**Conclusion.** The thickness of the endometrium and adequacy of Blood flow in the uterine vessels are the factors which determine the results of the IVF program and influence the outcome of IVF pregnancies.

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## THE INFLUENCE OF CHRONIC STRESS ON THE COURSE OF PREGNANCY AND LABOR OF WOMEN WITH DEFICIENCY BODY WEIGHT

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**Objective:** To investigate the influence of chronic stress on the course of pregnancy and labor of women with deficiency body mass.

**Methods:** The comparison analysis of the course of pregnancy and labor was carried out between women in group I and group II. 51 women in Tadjik Republic (in the period of 1991-93 years) with deficiency body mass (DBM) were observed during war time (group I) and 50 women with DBM were observed in D. O. Ott's Institute of Obstetrics and Gynecology in 1998.

(group II). The starting body mass (BM) before the pregnancy of women in both groups was compared in relation to Brock's index. The body mass of investigated women was reduced by 15% or more in respect to an ideal BM.

**Results:** The course of pregnancy at women with DBM in both groups was characterized by increased frequency of high risk abortation, anemia of the mothers, premature labor. Peculiarities during the course of pregnancy in conditions of chronic stress were more frequent ( $p<0,01$ ) development of chronic placenta insufficiency in  $39,2 \pm 6,8\%$ , labor of full-term children with below-average ( $<3000$  g) body mass in  $61,9 \pm 10,6\%$  in comparison to indexes of group II -  $14,0 \pm 4,9\%$  and  $25,0 \pm 6,5\%$  accordingly. The violation of hemodynamics in functional system mother-placenta-fetus (FSMPF) was noted in 68,7% mainly in material-placenta circulation in women with DBM.

**Conclusion:** Chronic stress in women with DBM, which was brought about by war activity, leads to an increase in frequency of labor of children with small body mass. This increase may be linked with violation of hemodynamics in FSMPF.