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## FEATURES OF THE COURSE OF PREGNANCY IN WOMEN OF DIFFERENT SOMATOTYPES

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### ABSTRACT

*The examined women were divided into somatotypes as follows: 35 (23,5% ) pregnant women had asthenic somatotype, 71 (47,7 %)-normosthenic somatotype and 43 (28,8% )-pical somatotype. To correctly assess the indicators of ultrasound data and reduce diagnostic errors, it is necessary to use the standards of fetometric indicators developed for a specific region. The average age of the examined women was 25,2±0,3 years. All pregnant women had a single pregnancy and were in the age group from 21 to 35 years, weighing from 65 kg to 95 kg and height from 151 to 182 cm. Thus, a direct correlation was established between a woman's somatotype and the following complications of pregnancy: the threat of termination of pregnancy, anemia, preeclampsia, intrauterine infection, fetoplacental insufficiency.*

**KEYWORDS:** *Somatotypes, Examined, Gynecological*

### INTRODUCTION

The most important task of the obstetric and gynecological service is to improve the quality and efficiency of prenatal diagnostics of fetal growth and development. A modern component of this process is screening ultrasound fetometry [ ]. To correctly assess the indicators of ultrasound data and reduce diagnostic errors, it is necessary to use the standards of fetometric indicators developed for a specific region. The development of personalized medicine, the formation of individual approaches to the assessment of the physical condition of the mother and fetus and their adaptive potential [ ], forces us to pay attention to the constitutional features of mothers, which undoubtedly have an impact on the process of fetal development. Populations of different somatotypes have different anatomical and physiological characteristics of the body and its components, but the same reactivity within their group [ ]. Separate studies [ ]. clearly indicate

the features of intrauterine development and functional state of fetuses in women with different somatotypes. Mishchenko N. A. et al. (2006), L. I. Kondakova, A. I. Krayushkin (2009) provide data on the features of the placenta morphology in women of different physiques[ ]. However, there are no systematic studies in the available literature to identify the relationship between the anthropometric parameters of pregnant women and the fetometric parameters of the developing fetus.

**The purpose of the study:** to establish the features of fetometric parameters in pregnant fetuses of different height and build at the stages of ultrasound screening examinations.

## RESEARCH MATERIALS AND METHODS

To solve the tasks set in the work, 149 pregnant women were examined, belonging to the dispensary groups of healthy or practically healthy, who first applied to a women's consultation and registered for pregnancy at a period of 8-10 weeks. The examination was carried out once upon admission to the obstetric hospital during pregnancy at 38-40 weeks. The average age of the examined women was  $25,2 \pm 0,3$  years. All pregnant women had a single pregnancy and were in the age group from 21 to 35 years, weighing from 65 kg to 95 kg and height from 151 to 182 cm. All women were expected to give birth for the first time (pregnant women with a history of dysmenorrhea, with antenatal fetal death, with developmental abnormalities, and with intrauterine development delay were excluded).

In addition to grading by somatotype, all women were also divided into growth groups: short – from 151 to 160 cm, medium – sized – 161-170 cm and tall-171 cm and above. The selection of growth groups is due to the fact that the anthropometric indices are calculated without taking into account the body length of the subjects and they will be different in different growth groups [ ].

Ultrasound examinations were performed in all women Three times in the dynamics of pregnancy ( in the first trimester at 10-14 weeks, in the second trimester at 20-24 weeks, in the third trimester at 30-34 weeks). In the first trimester of pregnancy, the exact period of pregnancy was determined by the size of the coccygeal-parietal size (CTD) of the fetus .In the second trimester of pregnancy, extended fetometry of the fetus was performed. At the same stage, visible fetal malformations were detected, placentography was performed, and the amount of amniotic fluid was evaluated.

The analysis of the data of the anthropometric examination of women conducted at the time of 38-40 weeks gestation showed that the average values of the length and body weight of the examined women were  $159,2 \pm 4,8$  cm and  $65,5 \pm 8,5$  kg, respectively. The somatotype was determined by the index in Rees, Eyschenck. The index assessment according to Rees, Eyschenck provides for the allocation, taking into account anthropometric indicators and the component composition of the body, of three somatotypes: asthenic, normosthenic and picnic.

The examined women were divided into somatotypes as follows: 35 (23,5% ) pregnant women had asthenic somatotype, 71 (47,7 %) -normosthenic somatotype and 43 (28,8% ) -picnic somatotype. According to our data, the course of the present pregnancy in 131 (87,9%) of the examined women was complicated. Iron deficiency anemia was the most common complication of pregnancy (78,5%).The frequency of iron deficiency anemia in the first half of pregnancy was higher in women of the asthenic somatotype, compared with women of the normosthenic and picnic somatotype.

At the same time, we found a positive correlation between the prevalence of iron deficiency anemia and the frequency of preeclampsia ( $r=0,96$ ,  $p<0,01$ ). It should be noted that the severity of iron deficiency anemia significantly correlated with the severity of preeclampsia ( $p<0,01$ ,  $g=0,94$ ).

The frequency of the threat of termination of pregnancy in women of the picnic somatotype remained high throughout the entire gestation period (41,5 %,  $p<0,01$ )

It was found that the frequency of infectious diseases (ARI, influenza) in women of the asthenic somatotype, registered in the first and second half of pregnancy, was 2 or more times higher than in women of the normosthenic and picnic somatotype.

Also noteworthy is the fact that in pregnant women of the asthenic somatotype, the rate of inflammatory diseases of the urogenital sphere was significantly higher than in women of the normosthenic and picnic somatotype both in the first half of pregnancy and in the second half of pregnancy. In 11,2% of women with asthenic somatotype, the gestational process was complicated by acute pyelonephritis.

A violation of adaptation in a normal pregnancy is the cause of many complications of the gestational process, the leading of which is preeclampsia. frequency of this complication was the highest in women of the picnic somatotype, compared with women of the asthenic and normosthenic somatotype. At the same time, as a consequence of the high frequency of preeclampsia in women of the picnic somatotype, chronic fetoplacental insufficiency was diagnosed in 82,9% of cases, which is significantly more frequent than in women of the asthenic and normosthenic somatotype (9,4% and 9,6%, respectively,  $p<0,001$ ). In women of asthenic and normosthenic somatotypes, preeclampsia had a short-term monosymptomatic course in the form of edema that occurred at the gestational age of 37-38 weeks.

Thus, a direct correlation was established between a woman's somatotype and the following complications of pregnancy: the threat of termination of pregnancy, anemia, preeclampsia, intrauterine infection, fetoplacental insufficiency.

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