8 - Anthropology

PO-101 - (23754) - THE FETAL BODY MASS INDEX DURING THE 14-32 WEEKS OF DEVELOPMENT

R. Khayrullin (Russian Federation)[1,2,3]; Z. Kakharov (Uzbekistan)[4]; M. Abdumukhtarova (Uzbekistan)[4]; K. Ibragimova (Uzbekistan)[4]; K. Gafurova (Uzbekistan)[4]

1 - Academician Pavlov First St Petersburg State Medical University; 2 - REAVIZ Private University; 3 - Osh State University; 4 - Andijan State Medical Institute

Radik Khayrullin
Saint Petersburg

Zafar Kakharov
Andijan

Madinabonu Abdumukhtarova
Andijan

Khurshidabonu Ibragimova
Andijan

Khusnidabonu Gafurova
Andijan

The authors state that they had no any conflicts of interest (including ethical) in this study.

One of the most significant anthropometry parameters is body mass index (BMI). Because weight cannot be directly measured, fetal BMI is not studied and this limited relevant fetal BMI studies. Retrospective autopsy materials are the optimal choice for examining the anthropometric features of prenatal human growth. The study's objective was to determine the body mass index values of the fetus during the second and third trimesters of pregnancy.
The material consisted of retrospective anonymized data from standard medical autopsy protocols, age determination based on fetal growth tables. The analysis used direct instrumental weight measurements with an accuracy of 500 mg and body length measurements with an accuracy of 1 mm, to determine the crown-heel distance. The body mass index was determined using a standard formula. The material ranging from 14 weeks to 33 weeks was divided into two age groups: the second trimester group (N=127) and the third trimester group (N=112).
In the sample not divided by sex, the fetal BMI at 14-32 weeks was 6.50±1.7. In the fetuses of the second trimester, the BMI was 5.56±1.4, and in the fetuses of the third trimester, it was 7.58±1.3. The differences according to the Bonferroni criterion are significant, $p<0.001$. The linear regression formula was as follows: BMI = (age in weeks)*0.365 - 2.05.

The results allow us to understand the dynamics of BMI, fill the void in the information on the research of BMI during the period of human growth before birth and can serve in developing fetal weight calculations during sonography.

Palavras-chave : human fetus, body mass index, fetal growth