

Abstract

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Monitoring of multiple pregnancy by using biochemical markers in the early stages of pregnancy - II.

Diploma thesis

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The diploma thesis objective is to work out an algorithm enabling multiple pregnancy detection using first-trimester with pregnancy associated plasmatic protein A (PAPP-A) biochemical marker in the blood serum of expectant mother pregnant with one foetus or twin foeti.

Detected PAPP-A markers value and free beta subunit of human chorionic gonadotropin (free β hCG) are converted into MoM values, adjusted to body masses of expectant mothers and subsequently entered into graphs where shifts in values between single and twin pregnancies are visible.

After testing a couple of empirical procedures an algorithm was found by means of which 83,78% of multiple pregnancy can be proved in the monitored group.

When algorithm was set for MoM values of PAPP-A marker there were found no false positive results in the group of women with 1 foetus.

Key words: multiple pregnancy, with pregnancy associated plasmatic protein A (PAPP-A), free beta subunit of human chorionic gonadotropin (free β hCG)