

Abstract

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Searching multiple pregnancy using biochemical markers in the early stages of pregnancy

Bachelor theses

Charles university in Prague, Faculty of Pharmacy

field of study: medical laboratory technician

The bachelor's thesis objective is to work out an algorithm enabling multiple pregnancy detection by second-trimester biochemical markers of alpha-1-fetoprotein and human chorionic gonadotropin in the blood serum of women pregnant with one foetus or twins.

Detected markers' values 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.

In testing several empirical methods, the algorithm was found by which 78,75 % multiple pregnancies can be proved in the studied group, with false positive ratio of 2,50%.

Key words: multiple pregnancy, alpha-1-fetoprotein (AFP), human chorionic gonadotropin (hCG)