Abstract

Objective: to quantify placenta-specific RNA in plasma of women carrying fetuses with intrauterine growth restriction and pregnant women with normal pregnancies. Materials and methods: 8 pregnant women with fetuses with intrauterine growth restriction were studied as well as 18 women with uncomplicated pregnancies in the third pregnancy trimester. Total free RNA was quantified in maternal plasma by spectrophotometry and the gene expression of hPL (Human Placental Lactogen) at the messenger RNA level through technical Real Time-Chain Reaction Polymerase. Results: plasma RNA of fetoplacental origin was successfully detected in 100% of pregnant women. There were no statistically significant differences between the values of total RNA extracted from plasma (p = 0.5975) nor in the messenger RNA expression of hPL gene (p = 0.5785) between cases and controls. Conclusion: messenger RNA of fetoplacental origin can be detected in maternal plasma during pregnancy.

Keywords

RCIU, Messenger RNA, plasma, pregnancy complications, human placental lactogen, Chain Reaction Reverse Transcriptase Polymerase.