Association of Higher Maternal Serum Levels of PLAC1 Protein with Intrauterine Growth Restriction

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The aim of this study was to determine the maternal PLAC1 protein levels in infants with IUGR. A total of 40 pregnant women with IUGR and 40 controls were recruited in this case control study between June 2014 and November 2014. Maternal serum PLAC1 levels were established as significantly higher in IUGR cases compared to the control groups (8.42 ± 3.59 vs. 6.27 ± 4.04 ng/ml, p<0.001). Area under ROC curve (AUC) analysis of PLAC1 in IUGR was 0.708, (95% confidence interval (CI): 0.593–0.823, p=0.001). Maternal PLAC1 levels above 7.41 ng/ml had a sensitivity of 62.5% (95% CI: 45.81–76.83), a specificity of 77.5% (95% CI: 61.15–88.6); positive and negative predictive values (PPV and NPV) were 73.53% (95% CI: 55.35–86.49) and 67.39% (95% CI: 51.86–80.03), respectively, with a diagnostic accuracy of 70%. In conclusion, we were able to demonstrate a significantly important link between IUGR and higher maternal serum levels of the PLAC1 protein.

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