

Comparison of predictivity of cerebroplacental ratio (CPR) and ductus venosus (DV) for adverse perinatal outcome in fetal growth restriction (FGR)

Objectives: The aim of this study is to compare the predictive performance of CP) and DV on the perinatal outcome in cases with FGR.

Methods: We studied two groups; group A: 50 cases were normal control and group B: 50 cases were FGR. At GA: 28-37 weeks. Doppler assessment for umbilical artery, middle cerebral artery and ductus venosus had been done twice: 1st time at the initial diagnosis of FGR and the 2nd time was within the last 48 hours before delivery. All cases were assessed after delivery for Apgar score at 5 minutes and admission to the neonatal intensive care unit (NICU).

Results: CPR in group B in the 2nd visit is statistically significantly higher than in the 1st visit and also higher than CPR in group A in both visits. Doppler velocimetry of ductus venosus was normal in all cases and controls in both visits.

The specificity and sensitivity of abnormal CPR for prediction of NICU admission in group B were 61.22% and 67.74% respectively. Ductus venosus pulsatility index had no predictive value for adverse neonatal outcome in our study.

Conclusions: We found that abnormally low CPR in FGR had association with adverse perinatal outcome. We didn't found association between DV Doppler velocimetry and NICU admission in these fetuses.

