

Effects of nifedipine on doppler indices of fetal middle cerebral artery and umbilical artery in managing hypertensive disorders of pregnancy.

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Abstract

Background: Hypertensive disorders of pregnancy affects uteroplacental and fetoplacental perfusion and may result into poor fetal conditions and increase perinatal morbidity and mortality. Aim: To study how effective CCBs are in improving uteroplacental perfusion. Material and methodology: 120 pregnant women with the gestation ages ranging from 32-40 weeks. Among them sixty were having hypertensive disorders of pregnancy and sixty were normal pregnant women. In case groups blood pressure before and after at least one of medication were recorded, and Doppler ultrasound indices for fetal MCA and UA S/D after at least one week of medication was also recorded. Results: MCA Peak systolic speed, UA S/D ratio, MCA Pulsatile index and MCA resistance index mean values differences between the two groups were not statistically significant i.e. p-value >0.05 . In correlation with p-value <0.05 , and measured: PS was affected by gestation age (1.63), S/D ratio was affected by gestation age (-0.1), systolic blood pressure (0.013) and age of women (0.007), PI on the other hand was impacted by gravidity (0.07) and preeclampsia (0.20). RI showed correlation with chronic hypertension (-0.08). on outcomes of pregnancy there was a relationship between S/D and Apgar score, an increase of S/D was associated with decrease of Apgar score, (-0.16, 95% CI = -0.27 to 0.05, p-value = 0.06). Conclusion: Oral use of nifedipine as an antihypertensive of choice in managing hypertensive disorders of pregnancy seem to improve uteroplacental perfusion in women with hypertensive disorders of pregnancy.

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