The effect of antenatal vaginal progesterone administration on uterine, umbilical and fetal middle cerebral artery Doppler flow: A cohort study.

Summary:

Objective To evaluate the effect of vaginal progesterone (P) administration during the second and third trimesters of pregnancy on Doppler velocimetry of uterine, umbilical, and middle cerebral vessels.

Study Design Aprospectivecohortstudyconductedon80womenatriskforpreterm labor. Uterine artery, umbilical artery, and middle cerebral artery (MCA) Doppler indicesweremeasuredbeforeandafter1 weekofadministrationof200 mg twice daily vaginal P. The primary outcome parameter was the change of MCA pulsatility index(PI) after P administration. Secondary outcomes included changes in uterine artery and umbilical artery Doppler measurement. Results There was no significant changes of umbilical artery resistance index (RI) (0.69 ! 0.049 vs. 0.68 ! 0.041), umbilical artery PI (1.14 ! 0.118vs.1.11 ! 0.116), uterine artery RI (0.66 ! 0.12 vs. 0.66 ! 0.107), uterine artery PI (1.00 ! 0.26 vs. 1.016 ! 0.24), and MCA PI (1.27 ! 0.18 vs. 1.26 ! 0.23) measurements before and after 1 week of P administration, respectively. Conclusion Vaginal P has no significant effects on uterine artery, umbilical artery and MCA Doppler indices.

Synopsis Administration of vaginal P has no significant effects on uterine artery, umbilical artery, and MCA Doppler indices.