

Reduction of Doppler indexes in the Middle Cerebral Artery in uncomplicated pregnancies at 40 weeks and beyond. What does it mean?

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Abstract

Objective The aim of our data is reveal correlation between Doppler in the Middle Cerebral Artery and fetal suffering during labor in uncomplicated pregnancies at 40 weeks and beyond. **Design** 1020 uncomplicated pregnant women at 40 weeks and beyond were examined by Doppler 48 hours before delivery. Population 260 women were included in the study because they met the inclusion criteria. **Methods** All women were divided into 2 groups according to fetus distress during labor (vaginal delivery and emergency Cesarean Section caused by fetal distress). And according to newborn's condition just after delivery (Apgar score ≤ 7 and > 7 on the 1st minute) **Result** In group of women with caesarean section caused by fetal distress pulsatility indexes were significant lower, than in group of women with vaginal labor (PI=1,12 and 0,98 respectively $P < 0,01$; CPR 1,44 and 1,26 respectively $P < 0,01$). We found out trigger level for pulsatility indexes as 0.835, if pulsatility indexes less 0.835 we have adverse perinatal outcome during labor. When $PI \leq 0,835$ fetal distress were in 66,7% cases, if $PI > 0,835$ in 39,1% cases ($P < 0,001$; OR= 3,1). When $PI \leq 0,835$ newborns had Apgar ≤ 7 in 37,5% and Apgar more than 8 in 20,3% ($P < 0,01$; OR=2,3) **Conclusion** Pulsatility indexes in Middle Cerebral Artery can be an indicator of fetal distress and can be useful as a marker of its poor outcome. On the basis of these, it is possible to identify groups of risk of women with gestation age of more than 40 weeks.

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