

**Perinatal outcome does not differ in IUGR fetuses born from normotensive women versus IUGR from preeclamptic women: a multicenter study**

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**Objective:** To assess the difference in perinatal outcome in IUGR fetuses from normotensive women versus IUGR because maternal preeclampsia

**Methods:** A multicenter observational study on IUGR fetuses delivered < 32 weeks for fetal indications and without a significative difference in gestational age and weight at birth IUGR because isolated placental insufficiency and maternal preeclampsia. Perinatal outcome, pH and base excess at birth were compared. Neonatal outcome was correlated to Doppler velocimetry alteration of the fetus, divided into early (umbilical artery and middle cerebral artery alterations) and late Doppler alterations (reversed flow in the umbilical artery and ductus venosus abnormality).

**Results:** The study group consisted of 150 IUGR fetuses because of isolated placental insufficiency and 98 because maternal preeclampsia. Mean gestational age at delivery was  $29.4 \pm 1.7$  weeks and mean birth weight  $895.7 \pm 224.6$  gr. in the first group;  $29.4 \pm 1.7$  weeks and  $929.6 \pm 182.7$  gr. in the second group. There were no significative difference in morbidity and mortality rate among the groups. Considering separately, all the variables but preeclampsia appeared significant in determining neonatal morbidity and mortality. Late Doppler alterations and gestational age were the most relevant variables determining neonatal morbidity ( $p=0.005$ ) and mortality ( $p=0.003$ ) considering fetus before birth. Considering the newborn the most important variable determining neonatal morbidity was birth weight ( $p=0.001$ ) and for neonatal mortality were late Doppler alterations ( $p=0.038$ ), neonatal weight ( $p=0.002$ ), low pH ( $p=0.001$ ) and BE ( $p=0.005$ )

**Conclusions:** The present study highlights that IUGR fetuses because of isolated placental insufficiency or maternal preeclampsia did not differ in perinatal outcome addressing that late Doppler alterations and weight at birth are predictors for adverse outcome.