

Prenatal predictor of composite adverse outcome in pregnancies undergoing induction of labour for fetal growth restriction

Marina **Piergianni** *, Roberta **Morelli**, Danilo Italo Pio **Buca**, Francesca **Di Sebastiano**, Marco **Liberati**, Francesco **D'Antonio**

Center For High-Risk Pregnancy and Fetal Care, Department of Obstetrics and Gynecology, University of Chieti, Chieti, Italy.

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Objective. To investigate prenatal predictors of adverse perinatal outcome in pregnancies undergoing induction of labor for late fetal growth restriction (FGR) with mechanical methods (cervical ballon).

Materials and Methods. Multicenter study including pregnancies with late FGR diagnosed using the new Delphi criteria undergoing IOL with mechanical materials. The prenatal predictors explored were maternal age, parity, body mass index, fetal weight, pulsatility index in the middle cerebral and uterine arteries, umbilical vein blood flow and amniotic fluid index. Multivariate logistic regression analysis and ROC analysis were used to build a multiparametric prediction mode. Adverse perinatal outcome was defined as the sum of cesare-

an sections for abnormal CTG trace, abnormal acid base status or admission to neonatal intensive care unit.

Results. Four hundred and five pregnancies were included. Adverse perinatal outcome was detected in 21% of pregnancies. At logistic regression analysis a low MCA PI (OR 1.23, 95%CI 1.1-1.4, $p < 0.001$), nulliparity (OR 5.4, 95%CI 3.3-7.4) and high PI in the uterine artery (OR 1.32, 95%CI 1.2-1.6, $p = 0.004$) were independently associated with an adverse perinatal outcome.

Conclusions. Fetuses with FGR are at a higher risk of adverse perinatal outcome after IOL. MCA and uterine artery PI were independently associated with an adverse perinatal outcome prior to the IOL.