

Haemodynamic evaluation at term: is it predictive of adverse perinatal outcomes? A monocentric retrospective study

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Objective. Aim of this study is to describe the correlation between maternal haemodynamic parameters obtained through USCOM performed beyond term and adverse perinatal outcomes (APO).

Materials and Methods. This is a retrospective monocentric descriptive study promoted by AOU Policlinico di Modena. The study period is January to December 2023. 157 patients have been enrolled: 124 of them were low risk pregnancies while 33 were affected by hypertensive disorder of pregnancy (HPD) and/or foetal growth restriction (FGR), in charge at our high risk pregnancy clinic. All of them received USCOM evaluation beyond term. APO at birth were defined as the presence of one of those complications: emergency caesarean section (eCS)/operative delivery (OD), postpartum haemorrhage (PPH),

NICU admission, 5-minute APGAR < 7. Data have been collected from medical records and elaborated thanks to the software SPSS (version 29).

Results. At univariate analysis, pregnancies complicated by HDP and/or FGR presented higher values of PAS, PAD, PAM and CI (P-values of 0.002, 0.005, 0.006, 0.003, respectively). Moreover, at logistic multivariate regression we found that higher values of RVS (P-value = 0.041) and reduction of CO (P-value = 0.004) are statistically related to higher risk of APO independently by the presence of Hypertension and/or FGR.

Conclusions. Although a bigger sample is mandatory, our analysis shows the possibility to predict undesirable obstetrical outcomes performing USCOM evaluation at term, especially in high-risk pregnancies.