

Perinatal outcomes in pregnancies complicated by late-onset foetal growth restriction undergoing induction of labour

Francesca **Pometti**^{1,2,*}, Daniele **Farsetti**^{1,2}, Sara **Nardini**^{1,2}, Benedetta **Lupoli**^{1,2}, Giulio Maria **Natali**^{1,2}, Barbara **Vasapollo**^{1,2}, Herbert **Valensise**^{1,2}

¹Policlinico Casilino, Rome, Italy.

²Tor Vergata University, Rome, Italy.

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Objective. To observe adverse perinatal outcomes in a population of pregnant women with late-onset FGR undergoing induction of labour.

Materials and Methods. We enrolled 66 pregnant women with late-onset FGR who underwent induction of labour with misoprostol. Before delivery we collected data about their last ultrasound scan to obtain the estimated foetal weight and maternal haemodynamic evaluation with USCOM method.

Results. 24 patients underwent vaginal instrumental deliveries or urgent C-section for non-reassuring cardiotocography during labour. A higher proportion of multiparous women developed adverse perinatal outcomes (96% vs 64%, $p = 0.004$), furthermore these patients showed an increased BMI (27 ± 3.3 vs 25 ± 3.1 , $p = 0.03$) compared to patients with uncomplicated

outcomes. The neonatal birth weight percentile appears to be significantly lower in the first group of patients (5 ± 5.3 vs 11 ± 13.2 , $p = 0.05$) with 88% of cases below the 10th percentile (88% vs 62%, $p = 0.03$). Maternal haemodynamic evaluation showed increased values of mean arterial pressure (MAP) (88 ± 12.2 vs 82 ± 8.9 , $p = 0.01$), systemic vascular resistances (SVR) (1072 ± 251.7 vs 942 ± 216.9 , $p = 0.03$) and PKR (23 ± 7.9 vs 20 ± 6.6 , $p = 0.05$) in patients who had worse outcomes. ROC curve analysis was performed for BMI and haemodynamic parameters to test the predictive capacity of these variables in identifying patients at risk of develop adverse perinatal outcomes.

Conclusions. BMI (OR 4.25, $p < 0.01$) and SVRI (OR 16.88 $p < 0.01$) seem to be independent predictors of adverse perinatal outcome in pregnancies with FGR underwent induction of labour.