

Perinatal outcomes in near term women with a sentinel event: a multicentre retrospective study

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Objective. To describe the perinatal outcomes in infants born to a cohort of women with sentinel events at delivery.

Materials and Methods. Multicentre retrospective observational cohort study. Singleton pregnancy since 35 weeks with a sentinel event (placental abruption, uterine rupture, cord prolapse, shoulder dystocia or mother's cardiocirculatory collapse) were enrolled over a seven-year period in two University Hospitals (Modena and Monza). Maternal and neonatal data were collected from medical records. A short-term composite adverse neonatal outcome (ST-CANO) including stillbirth (SB), invasive resuscitation, pH < 7.1, 5th min APGAR < 7, lactates > 8, Hb < 1st centile for gestational age (GA), NICU admission, encephalopathy, pathologic MRI or hospitalization > 7 days was calculated: univariable and multivariable logistic mixed models were estimated to investigate the association

between this and women characteristics. These models included a random term to consider heterogeneity among centres.

Results. Two hundred-twenty mothers were enrolled (0.8% of deliveries). SBs occurred solely with placental abruption (5.5%). At univariate analysis, there were no differences in ST-CANO between different sentinel events or other pregnancy characteristics. At multivariate analysis, GA at delivery ($p = 0.006$) was the only independent risk factor predicting ST-CANO, once adjusted for maternal age, ethnicity, smoking, BMI, nationality, parity, type of labour, birthweight. At 24 months follow-up only seven newborns (3.1%) had neurological sequelae, and one died.

Conclusions. GA at delivery while not type of sentinel event affect ST-CANO. No other factors affecting the prognosis were discovered in a population of babies born in 2 third level university hospital.