

# 4<sup>th</sup> International Conference on Pediatrics, Child Health and Emergency Care April 25-26, 2022 | Webinar

Volume: 08

## Antepartum and intrapartum risk factors for neonatal hypoxic-hischemic encephalopathy: a systematic review and meta-analysis

**Cristina Rossi, MD**

San Paolo" Hospital, ITALY

**Objective.** To review literature about risk factors of neonatal hypoxic-ischemic encephalopathy (HIE).

**Materials.** Search in PubMed, MEDLINE, Embase, Clinicaltrials.gov and reference lists from 1999 to 2018. Study population was composed of neonates with diagnosed HIE within 28 days from delivery, data reported as proportional rate. Studies were excluded if they included [preterm pregnancies](#), postnatal conditions leading to HIE and/or [fetal malformations](#), focused on a single risk factor. PRISMA guidelines were followed. Interstudies heterogeneity was assessed and a random/fixed models were generated as appropriate. Comparison between neonates with HIE vs. controls was performed by calculating odds ratio-95% confidence interval (OR-95% CI). Differences were significant if 95% CI did not encompass 1.

**Results.** Twelve articles were included. Fetuses with growth restriction (OR: 2.87; 95% CI: 1.77-4.67), nonreassuring cardiotocography (OR: 6.38; 95% CI: 2.56-15.93), emergency cesarean section (OR: 3.69; 95% CI: 2.75-4.96), meconium (OR: 3.76; 95% CI: 2.58-5.46) and chorioamnionitis (OR: 3.46; 95% CI: 2.07-5.79) were at higher risk of developing HIE. Nulliparity, [gestational diabetes](#), hypertension, oligohydramnios, polyhydramnios, male sex, induction of labor, labor augmentation, premature rupture of membrane, and vacuum delivery were not significantly different.

**Conclusion.** Neonatal HIE has multifactorial origin and its cause is often undetermined and not preventable. (PROSPERO Registration number: CRD42018106563).

### Biography

I received both my degree in Medicine and Surgery, and my Residency in Obstetrics and Gynecology at University of Bari, Bari, Italy. I work as Obstetrician at Clinic of Obstetrics and Gynecology, "San Paolo" Hospital, Bari, Italy. I have special interests in Prenatal diagnosis, Maternal and fetal medicine, and Obstetrics.

acristinarossi@yahoo.it