

Perinatal risk factors for neonatal encephalopathy

Ada Simeoni¹, Gerta Mullalli-Bime², and Edite Sadiku³

¹International Hospital, Albania

²American Hospital, Albania

³University Hospital centre "Mother Teresa", Albania

Introduction: Neonatal Encephalopathy (NE) is a significant cause of child mortality. We investigated antepartum and intrapartum risk factors for neonatal encephalopathy in term infants.

Material and Methods: A matched case-control study was conducted at the maternity hospital K. Gliozheni² in Tirana, Albania, in which characteristics of 65 singleton term infants who developed NE from 2011-2018 were compared with those of randomly selected controls. Antenatal risk factors (including obesity, diabetes, thyroid dysfunction, previous cesarean delivery, preeclampsia, fetal growth restriction, abnormal amniotic fluid volume, and abnormal Fetal Heart Rate [FHR] tracing before labor) and intrapartum risk factors (acute intrapartum sentinel events and other risk factors like suspicious or ominous FHR tracing and clinical chorioamnionitis) were related to occurrence of NE.

Results: Neonates with encephalopathy had more frequent antepartum (75% versus 19%, $p < 0.001$) and intrapartum (68% versus 20%, $p < 0.001$) risk factors, including acute intrapartum events (35% versus 3%, $p < 0.001$), than controls. On the whole, 28% of cases of NE had only antepartum risk factors, 23% had only intrapartum risk factors, and 45% had a combination of the two. In 9% cases, no risk factors were recognizable. Four of the 65 cases died versus none of controls, giving a neonatal case-fatality rate of 6.2% and forty two (64.6%) neonates with NE presented multiorgan dysfunction.

Conclusions: 45% of cases of NE following term deliveries can be attributed to a combination of antepartum and intrapartum variables. Understanding which perinatal risk factors are associated with neonatal encephalopathy is key to developing interventions to prevent newborn deaths and disability.

Biography

I am a medical doctor, from Tirana, Albania. I have graduated on 2000 from the Faculty of Medicine, University of Tirana, Albania. In 2007 was specialized for four years in pediatrics- neonatology and I am working at International Hospital in Tirana. Currently I am doing Phd in obstetric and gynecology from Tirana University, in Tirana - Albania. I am dedicated to my profession and also I have several publications on this topic.

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