

Improvements in Neonatal Brain Monitoring after Perinatal Asphyxia

PROPOSITIONS

1. Neonatal seizures are associated with increased mortality and long-term disability. *G. M. Ronen, 2007.*
2. Hypoxic encephalopathy is the most common serious cause of neonatal seizures. *Joseph J Volpe, 2008.*
3. EEG background abnormality is a very good prognostic indicator after perinatal asphyxia. *K. Watanabe, 1980.*
4. Majority of seizures occurring in at-risk neonates are sub-clinical and are missed without EEG monitoring. *D. M. Murray, 2008.*
5. Seizures are significantly more likely to occur during continuous EEG monitoring of at-risk newborns when the EEG background activity is abnormal. *N. Laroia, 1998.*
6. Total burden of post-asphyxial neonatal seizures is strongly related to the severity of brain injury. *This thesis.*
7. Electrographic characteristics of post-asphyxial neonatal seizures like amplitude, frequency, rhythmicity and spread to the opposite cerebral hemisphere are related to the severity of EEG background abnormality. *This thesis.*
8. Seizure characteristics in neonatal hypoxic encephalopathy are influenced by the location as well as by the severity and pattern of brain injury as seen on magnetic resonance imaging. *This thesis.*
9. Ictal heart rate changes are insensitive to detect post-asphyxial neonatal seizures. *This thesis.*
10. Quantification of various seizure parameters during long-term EEG monitoring in the neonate is best done by an automated seizure detection system. *This thesis.*
11. The knowledge of an effect depends on, and involves, the knowledge of the cause. *Baruch Spinoza.*

Joseph Cherian Perumpillichira
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