Improvements in Neonatal Brain Monitoring after Perinatal Asphyxia

PROPOSITIONS

1. Neonatal seizures are associated with increased mortality and long-term disability. 

2. Hypoxic encephalopathy is the most common serious cause of neonatal seizures. 

3. EEG background abnormality is a very good prognostic indicator after perinatal asphyxia. 

4. Majority of seizures occurring in at-risk neonates are sub-clinical and are missed without 

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.

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