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SEIZURE DISORDERS

OUTCOME OF NEONATAL ELECTROGRAPHIC SEIZURES

Continuous EEG recordings of 40 consecutive neonates with electrographic seizures (ESz) were retrospectively analyzed and their outcome compared to that for 28 infants without ESz, in a study at the Children's Hospital Medical Center, Akron, OH, and the University of Rochester School of Medicine, NY. The cumulative recorded ESz duration was 8 min to 30 hours. Asphyxia was the cause of ESz in 23 (57%). ESz were refractory to treatment with phenobarbital (40 mg/kg) and phenytoin (20 mg/kg) in 30% of infants, and 10 infants died. ESz were correlated with microcephaly, severe cerebral palsy (CP), and failure to thrive. Infants with a history of perinatal asphyxia and ESz were especially at risk of dying from neurologic causes, and having microcephaly or severe CP. These severe outcomes were also correlated with the frequency of ESz. (McBride MC, Laroia N, Guillet R. Electrographic seizures in neonates correlate with poor neurodevelopmental outcome. *Neurology* August (2 of 2) 2000;55:506-513). (Reprints: Dr Margaret C McBride, Division of Child Neurology, Children's Hospital Medical Center, One Perkins Square, Akron, OH 44308).

COMMENT. The authors have demonstrated the importance of continuous EEG monitoring of at-risk infants in the assessment of neonatal seizures. Numerous clinically undetected electrographic seizures (ESz), lasting for hours to days, were recorded, despite maximal doses of antiepileptic drugs. ESz are associated with an increase in mortality and morbidity, including severe cerebral palsy, microcephaly, and failure to thrive, irrespective of seizure etiology. Poor neurodevelopmental outcome is correlated with the amount of ES activity in at-risk infants in general and in infants with perinatal asphyxia. More effective treatment of ESz is required, to determine a causal relationship with poor outcome. For further articles on EEG monitoring of neonatal seizures, see [Progress in Pediatric Neurology III](#), PNB Publ,1997;pp 11 and 17.

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