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SEIZURE DISORDERS

EEG SEIZURES IN NEONATES

Ictal and interictal electrographic seizure durations were compared in 33 preterm(PT) and 35 full-term(FT) neonates studied retrospectively at the Magee-Womens Hospital and the Children's Hospital of Pittsburgh. Average ictal durations were five times longer in FT than in PT infants(14.2 cf 3.1 min). Status epilepticus was responsible for the longer ictal durations in 33% of FT cf only 9% of PT infants. Interictal durations were longer in the older PT(>33 wks) cf young PT(<33 wks) infants. More mature neuronal networks in FT neonates are associated with longer ictal durations and more frequent status epilepticus than in PT neonates. Inhibitory networks more dominant in older than in younger PT infants are correlated with longer interictal periods. (Scher MS, Painter MJ et al. Ictal and interictal electrographic seizure durations in preterm and term neonates. Epilepsia March/April 1993; **34**: 284-288). (Reprints: Dr Mark S Scher, Developmental Neurophysiology Laboratory, Magee-Womens Hospital, 300 Halket St, Pittsburgh, PA 15213).

COMMENT. Neonatal seizures have a high mortality; 35% of this series died soon after birth. They are often difficult to diagnose, and the EEG plays a pivotal role in management. Ideally, video monitoring is used to correlate behavioral manifestations with the EEG. The effectiveness of treatment with anticonvulsant drugs should be evaluated electrographically, in addition to reliance on clinical criteria. Two thirds of neonatal seizures are unresponsive (Painter et al. J Pediatr 1978; **92**:315); only 10% are confirmed by EEG (Scher et al. Pediatr Neurol 1989; **5**: 17).

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