UK INFANTILE SPASMS STUDY: EFFECT OF TIME TO TREATMENT AND AGE AT ONSET ON DEVELOPMENTAL OUTCOME

The effects of lead time to treatment (time from onset of spasms to start of treatment), age at onset of spasms, etiology, and treatment on developmental outcome at 4 years were investigated using multiple linear regression in 77 infants with spasms treated in the UK Infantile Spasms Study (UKISS). Age of onset ranged from <1 to 10 months (mean 5.2), and lead time to treatment was 7 days or less in 11, 8-14 days in 16, 15 days to 1 month in 8, 1-2 months in 15, >2 months in 21 and not known in 6. The Vineland Adaptive Behavior Scales (VABS) scores showed a 3.1 decrease with each month of reduction in age at onset (p=0.03) and a 3.9 decrease with each increase in category of lead time duration (p=0.014). Outcome was significantly benefitted by steroid therapy in children whose spasms had no identifiable etiology (p=0.004). Prompt diagnosis and prompt treatment of infantile spasms may help prevent subsequent developmental delay. Younger infants may be more at risk from epileptic encephalopathy than older infants. (O'Callaghan FJK, Lux AL, Darke K, et al. The effect of lead time to treatment and of age of onset on developmental outcome at 4 years in infantile spasms: Evidence from the United Kingdom Infantile Spasms Study. **Epilepsia** July 2011;52(7):1359-1364). (Response: Professor John P Osborne, Children's Centre, Royal United Hospital, Combe Park, Bath BA1 3NG, UK. E-mail:mpsjpo@bath.ac.uk).

COMMENT. The UKISS was a clinical trial comparing the effects of hormonal treatments (prednisolone or tetracosactide depot) to vigabatrin. Hormonal treatment was superior to vigabatrin in control of spasms, regardless of etiology (Lux et al, 2004), and developmental VABS scores at 14 months and 4 years of age were better in patients receiving hormonal treatment and spasms with no identifiable etiology (Darke et al, 2010).

Early control of spasms and a shorter interval between onset and time of treatment reduce the duration of epileptic encephalopathy, resulting in benefit to developmental outcome. Duration of hypsarrhythmia longer than 3 weeks is also shown to affect developmental outcome (Rener-Primec Z et al, 2006).

OCCIPITAL CORTEX INITIATING GENERALIZED EPILEPSY IN JEAVONS SYNDROME

Researchers at the Hospital for Sick Children, Toronto, studied the interictal, ictal, and clinical findings on video-EEG in 12 children (11 female; mean age 4.9 years, range 1.5 – 9 years) with Jeavons syndrome (JS). All met the diagnostic criteria of JS: eyelid myoclonia, eye closure-induced seizures/EEG paroxysms, and photosensitivity. Six (50%) had a previous diagnosis of absence seizures and 10 were taking antiepileptic medications. All 12 had normal posterior dominant alpha rhythm, reactive to eye opening and closure. Six had spiky posterior alpha activity with sustained eye closure, 10 (83%) had generalized epileptiform discharges (ED) interictally, 11 (92%) had focal posterior ictal EDs, and 9 (75%) had eyelid myoclonia and/or paroxysmal EDs induced by photic