

dismissed by his senior colleague, Kinnear Wilson, who regards narcolepsy as a syndrome with several different causes, traumatic, endocrine, epileptic, toxi-infective, circulatory, tumor, and idiopathic. Neither Adie nor Kinnear Wilson refers to hypsomnia in their account of narcolepsy-cataplexy disorder, but they did locate the pathology in the floor of the third ventricle in symptomatic cases. (Compston A. *Brain* Oct 2008;131:2532-2535).

## **ELECTROENCEPHALOGRAPHY**

### **PROGNOSTIC VALUE OF EEG IN ASPHYXIATED NEWBORNS TREATED WITH HYPOTHERMIA**

Researchers at Children's Hospitals in Milan, Italy, determined the prognostic value of electroencephalographic patterns in 23 newborns with severe perinatal hypoxic-ischemic encephalopathy, treated with hypothermia. EEG monitoring was obtained within 48 hours after birth, and at follow-up at ages 1 week, 1 month, 3-6 months, and 1 year. EEG background activity was classified as follows: 1) inactive pattern; 2) severe low-voltage continuous pattern; 3) trace alternant-like, discontinuous pattern; and 4) monomorphic middle-voltage, continuous 30-100mcV activity, with poor spatial and sleep-state organization. Pattern 1 (inactive) in the first 48 hrs was associated with death or severe neurologic sequelae. Pattern 2 (low-voltage continuous) at age 1 week indicated a poor prognosis, and the persistence of EEG abnormalities in 67% patients at age 1 month was associated with a higher risk of neurologic sequelae. A normal EEG at age 1 month was associated with a favorable outcome at age 1 year. After 1 month of age, the EEG is less sensitive but more specific in prediction of outcome, due to the natural trend toward normalization with age. At age 1 year, 52% infants had normal neurologic examinations, 13% had minor sequelae, and 17% major sequelae; 17% had died within 1 month of age. (Mariani E, Scelsa B, Pogliani L, Introvini P, Lista G. Prognostic value of electroencephalograms in asphyxiated newborns treated with hypothermia. *Pediatr Neurol* Nov 2008;39:317-324). (Respond: Dr Scelsa, Department of Child Neurology, Vittori Buzzi Children's Hospital, Via Castelvetro 32, 20154 Milan, Italy. E-mail: [b.scelsa@icp.mi.it](mailto:b.scelsa@icp.mi.it)).

COMMENT. These results confirm previous findings that background EEG abnormalities detected in newborns soon after hypoxic-ischemic encephalopathy are predictive of outcome, even in patients treated with hypothermia.

### **AMPLITUDE-INTEGRATED EEG IN THE NEWBORN**

The value of amplitude-integrated electroencephalography (aEEG) in the newborn is explored by researchers at Washington University, St Louis; Wilhelmina Children's Hospital, Utrecht, Netherlands; and Uppsala University Hospital, Sweden. The system was originally designed to monitor lower amplitude signals of 1 to 10 mcV and depressed cerebral activity in adults undergoing bypass surgery, as well as seizure activity. Meta-analysis has confirmed that the aEEG pattern in the first 6 hours of life of term newborns with hypoxic-ischemic encephalopathy is strongly predictive of outcome. Pattern-recognition may be more reliable than amplitude in the evaluation of aEEG. The electrode placement over parietal areas,