

PROGNOSIS OF VERY LOW-BIRTH WEIGHT INFANTS

The cognitive and motor abilities of 43 very low birth weight children (VLBW) and classroom controls are reported from the Greenwood Children's Centre, City Hospital, Nottingham, England. Children born in 1981 and weighing less than 1501 grams who had received treatment in the neonatal intensive care unit were followed up on entry to primary school at the age of 5 years. Those included in the study were apparently normal with no observed handicap or need for special educational services. The results on the McCarthy Scales of Children's Abilities were compared with those of matched classmates. Significant differences were found between the two groups on all six scales and were most marked on the general cognitive index. The mean IQ score for the study children was 88 compared with 101 for the controls. No child in the control group scored below 74, whereas 8 of the study children scored below 70 and were in need of special education. (Abel Smith AE, Knight-Jones, EB. The abilities of very low birth weight children and their classroom controls. Dev Med Child Neurol July 1990; 32:592-601).

COMMENT In addition to the immediate morbidity and mortality, the cognitive deficits of very low birth weight children are a concern. One third of the VLBW infants born in the Nottingham Centre died in the neonatal period, but two-thirds appeared to be developing normally on the basis of early follow-up studies. Learning difficulties among the study group became increasingly apparent at higher educational levels, although in their first year of school none had been uncovered.

PROGNOSIS OF NEONATAL SEIZURES

The value of standard and ambulatory electroencephalography in the prediction of continuing neonatal seizures was investigated in the Department of Neurology, State University of New York, Buffalo, NY. Thirteen neonates with seizures occurring after 7 days of age were evaluated with standard short-term electroencephalography (SEEG) during the initial seizures and with ambulatory EEG (AEEG) when each infant was within 37-44 weeks corrected age (i.e., gestational age plus chronologic age). The etiology of the seizures was hypoxia in 7, infectious in 3, and idiopathic in the remainder. The occurrence of seizures at 3-4 months corrected age was accurately predicted by SEEGs in 8 of 13 cases, by AEEGs in 10 to 13, and with the combined use of SEEG and AEEG in 12 of 13. The combined analysis of SEEG and AEEG provided the best prediction of continued seizure activity in infants with neonatal seizures. (Kerr SL et al. Sequential use of standard and ambulatory EEG in neonatal seizures. Pediatr Neurol May-June 1990; 6:159-162).

COMMENT The identification of high risk infants who require antiepileptic drugs beyond the neonatal period should be facilitated by using this technique. Neonatal seizures become recurrent in approximately 25% of cases.