

elevated RBC counts does not rule out the diagnosis. The frequent finding of additional viruses suggests a reactivation of HSV as the mechanism. Typical EEG findings helpful in diagnosis of HSE are less prevalent in children than adults. MRI is more sensitive than CT, showing localization to the limbic system in one half and bilateral disease in one third of cases. Adverse outcomes in two thirds are not predicted by clinical features or by diagnostic test abnormalities. Patients who receive a 21-day course of acyclovir, compared with a 14-day course, have a lower incidence of abnormal neurologic sequelae and tendency to relapse.

Coincidental occurrence of additional viruses may point to a reactivation of HSV as the cause of encephalitis, or alternatively, the additional virus may be the primary pathogen, as suggested in a letter to the editor (Eisenhut M. *Mycoplasma pneumoniae* encephalitis and reactivation of herpes simplex virus. **Pediatrics** June 2007;119:1256-1257). *M pneumoniae* is an important cause of acute encephalitis in children, accounting for an estimated 6.9% of all cases (Bitnun A, et al. **Pediatrics** June 2007;119:1257-1258). These authors doubt the significance of serologic tests as the only evidence of *M pneumoniae* infection, and emphasize the difficulties in determining the etiology of acute encephalitis in some cases.

## NEONATAL DISORDERS

### **OUTCOMES OF HEAD COOLING FOR NEONATAL ENCEPHALOPATHY**

The role of possible clinical factors that might influence the efficacy of treatment with delayed head cooling and mild systemic hypothermia for neonatal encephalopathy was determined in a total of 218 term infants treated at University College, London, UK; University of Auckland, New Zealand; and other centers in the UK, USA, and Canada. Infants with moderate to severe encephalopathy plus abnormal amplitude-integrated EEG recordings were assigned randomly to head cooling for 72 hours, starting within 6 hours after birth, or conventional care without cooling. Analysis of clinical data at 18 months showed that infants with a lower encephalopathy grade, lower birth weight, greater amplitude-integrated EEG, absence of seizures, and higher Apgar score had significantly better outcomes. Gender and gestational age were not significantly associated. In multivariate analysis, each of the clinical factors except the Apgar score was predictive of a good prognosis. Larger infants with birth weights  $> 25^{\text{th}}$  percentile showed a greater frequency of favorable outcomes with cooling but less favorable outcomes for the control group. The encephalopathy grade was the single most predictive factor of outcome. Pyrexia ( $> 38^{\circ}\text{C}$ ) in control infants was associated with adverse outcomes; 34 control patients had rectal temperatures of  $> 38^{\circ}\text{C}$  during the 76-hour monitoring period, and 28 (82%) had unfavorable outcomes; of 76 without pyrexia, 45 (59%) had unfavorable outcomes ( $P=0.028$ ). (Wyatt JS, Gluckman PD, Liu PY et al. for the CoolCap Study Group. Determinants of outcomes after head cooling for neonatal encephalopathy. **Pediatrics** May 2007;119:912-921). (Respond: Alistair Jan Gunn MBChB,PhD, Department of Physiology, Faculty of Medicine and Health Science, University of Auckland, Private Bag 92019, Auckland, New Zealand. E-mail: aj.gunn@auckland.ac.nz