

IN BRIEF

TRAUMATIC BRAIN INJURY

Therapeutic hypothermia could reduce the extent of brain tissue injury in infants with hypoxic–ischemic encephalopathy, according to a randomized controlled trial. Rutherford and colleagues demonstrated that whole-body cooling of infants who showed signs of moderate or severe encephalopathy was associated with a reduction in gray and white matter lesions on MRI analysis. Furthermore, infants who received whole-body cooling were more likely to have normal brain MRI scans than were infants who received standard intensive care treatment, and had fewer scans that were predictive of later abnormal neural development. Therapeutic hypothermia did not increase the incidence of death or disability at 18 months, indicating that this technique could be a safe treatment for hypoxic–ischemic encephalopathy in infants.

Original article Rutherford, M. *et al.* Assessment of brain tissue injury after moderate hypothermia in neonates with hypoxic–ischemic encephalopathy: a nested substudy of a randomised controlled trial. *Lancet Neurol.* doi:10.1016/S1474-4422(09)70295-9

MULTIPLE SCLEROSIS

The underlying etiology of multiple sclerosis (MS) is not known; however, both genetic and environmental risk factors have been identified. In a study of two longitudinal cohorts of US women, Munger *et al.* have shown that obesity in adolescence is associated with an increased risk of developing MS. By contrast, obesity in childhood and an adult BMI indicative of obesity were not associated with an increased risk of developing this disease. The results of this study suggest that reducing the incidence of obesity during adolescence might also reduce the incidence of MS.

Original article Munger, K. S. *et al.* Body size and risk of MS in two cohorts of US women. *Neurology* 73, 1543–1550 (2009)

ALZHEIMER DISEASE

Julkunen and colleagues have used MRI to examine cortical thickness in patients with mild cognitive impairment (MCI) over a 7 year period. The study showed that patients with MCI who developed Alzheimer disease (AD) within this time frame had substantially reduced cortical thickness compared with patients with MCI who did not develop AD during the duration of the study. The differences in cortical thickness between the two groups of patients with MCI were evident bilaterally in different areas of the brain, including the temporal, fusiform and parahippocampal regions and cingulate and retrosplenial cortices. Analysis of cortical thickness could be used to predict which patients with MCI will develop AD.

Original article Julkunen, V. *et al.* Cortical thickness analysis to detect progressive mild cognitive impairment: a reference to Alzheimer's disease. *Dement. Geriatr. Cogn. Disord.* 28, 404–412 (2009)