Nature Reviews Neurology 8, 355 (2012); published online 19 June 2012;
doi:10.1038/nrneurol.2012.106;
doi:10.1038/nrneurol.2012.107;
doi:10.1038/nrneurol.2012.108;
doi:10.1038/nrneurol.2012.109

IN BRIEF

STROKE

Leukoaraiosis associated with increased risk of haematoma after thromboectomy

Leukoaraiosis—diffuse white matter abnormalities detected on CT or MRI scans—is associated with worse outcomes after mechanical thromboectomy. In a retrospective analysis of 105 patients with stroke who underwent mechanical thromboectomy, Shi *et al.* found that those with moderate or severe leukoaraiosis in deep white matter had higher rates of haemorrhagic transformation and parenchymal haematoma after the procedure than did patients without such white matter abnormalities.

Original article Shi, Z.-S. *et al.* Leukoaraiosis predicts parenchymal hematoma after mechanical thromboectomy in acute ischemic stroke. *Stroke* doi:10.1161/STROKEAHA.111.649152

NEUROMUSCULAR DISEASE

ADHD and cognitive impairment in Duchenne muscular dystrophy

A recent phenotype–genotype correlation study has suggested a link between Duchenne muscular dystrophy (DMD), attention deficit–hyperactivity disorder (ADHD) and cognitive impairment. Of the 103 boys with DMD who were included in the study, 33 were diagnosed with ADHD, and 27 had intellectual disability. Importantly, the risk of ADHD was higher in carriers of mutations in brain-expressed dystrophin isoforms.

Original article Pane, M. *et al.* Attention deficit hyperactivity disorder and cognitive function in Duchenne muscular dystrophy: phenotype–genotype correlation. *J. Pediatr.* doi:10.1016/j.jpeds.2012.03.020

NEURODEGENERATIVE DISEASE

Hippocampal hyperactivity as a paradoxical mediator of cognitive impairment

Increased hippocampal activity is observed in many conditions that increase the risk of Alzheimer disease (AD), but whether this activity is pathological or compensatory has been unclear. In a small study in patients with amnesic mild cognitive impairment, the antiepileptic drug levetiracetam reduced hippocampal activity and improved performance in a cognitive test compared with placebo. Strategies to lower hippocampal activity might, therefore, preserve cognitive function in prodromal AD.

Original article Bakker, A. *et al.* Reduction of hippocampal hyperactivity improves cognition in amnesic mild cognitive impairment. *Neuron* 74, 467–474 (2012)

MULTIPLE SCLEROSIS

Natalizumab reduces cortical pathology in relapsing–remitting multiple sclerosis

Cortical pathology is known to have a role in multiple sclerosis (MS)-associated disability. In a prospective study, 120 patients with severe relapsing–remitting MS were assigned to receive the therapeutic antibody natalizumab, immunomodulatory agents, or no treatment. After 2 years, patients receiving natalizumab had significantly reduced cortical pathology and increased freedom from disease compared with patients in the other two groups.

Original article Rinaldi, F. *et al.* Natalizumab strongly suppresses cortical pathology in relapsing–remitting multiple sclerosis. *Mult. Scler.* doi:10.1177/1352458512447704