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IN BRIEF

MULTIPLE SCLEROSIS

Imaging of central veins in brain lesions can be used to predict multiple sclerosis

Owing to a lack of disease-specific tests, diagnosis of multiple sclerosis (MS) requires numerous, often invasive, investigations. In a new prospective study, Mistry *et al.* report that visualization of central veins in brain lesions using MRI is a sensitive method to predict MS. 29 individuals with suspected MS who had brain lesions were studied, and of the 13 individuals who were subsequently diagnosed with MS, all had central veins in brain lesions as detected on MRI.

Original article Mistry, N. *et al.* Central veins in brain lesions visualized with high-field magnetic resonance imaging. *JAMA Neurol.* doi:10.1001/jamaneurol.2013.1405

NEUROINFLAMMATION

A role for platelets in neuroinflammation?

Platelets comprise the cellular bulk of peripheral blood and have a role in thrombosis and haemostasis in response to blood vessel injury. These cells are known to become activated in—and contribute to—cardiovascular pathology, but their role in neuroinflammation was unclear. Sotnikov *et al.* have revealed that platelets become activated upon recognition of brain lipids that are commonly found in the blood–brain barrier. During neuroinflammation in mice, platelets accumulated in the CNS parenchyma and secreted proinflammatory factors, suggesting that they can drive immune-mediated damage.

Original article Sotnikov, I. *et al.* Platelets recognize brain-specific glycolipid structures, respond to neurovascular damage and promote neuroinflammation. *PLoS ONE* 8, e58979 (2013)

STROKE

Coupling of inhibitory and facilitatory rTMS enhances motor recovery following hemiplegic stroke

Repetitive transcranial magnetic stimulation (rTMS) has proved beneficial for motor recovery following stroke. In a new study, researchers used a sham-controlled design to investigate the efficacy of coupling inhibitory rTMS over the contralesional area with facilitatory theta-burst stimulation over the ipsilesional region. Compared with single-site stimulation or double-sham stimulation, coupling of both stimulation protocols was associated with greater muscle strength, motor function and reaction time.

Original article Sung, W.-H. *et al.* Efficacy of coupling inhibitory and facilitatory repetitive transcranial magnetic stimulation to enhance motor recovery in hemiplegic stroke patients. *Stroke* doi:10.1161/STROKEAHA.111.000522

MULTIPLE SCLEROSIS

Severity of cognitive deficits in MS linked to disease course

Cognitive deficits are more severe in patients with primary progressive multiple sclerosis (PPMS) than in those with relapsing–remitting form (RRMS), according to a new study in *Neurology*. Cognitive abilities were tested in 41 patients with PPMS and 60 with RRMS. Both groups performed worse on all tests than healthy controls. Individuals with PPMS, however, presented with a greater range of cognitive deficits than did patients with RRMS.

Original article Ruet, A. *et al.* Cognitive impairment differs between primary progressive and relapsing-remitting MS. *Neurology* doi:10.1212/WNL.0b013e31828cf82f