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IN BRIEF

MULTIPLE SCLEROSIS

Diurnal variations in serum markers of inflammation —an avoidable source of bias in MS studies?

Serum markers of inflammation vary depending on the time of day, which could cause bias of data, according to a recent study in relapsing–remitting multiple sclerosis (MS). Analysis of blood samples taken from patients with MS at various points in the day revealed that levels of some inflammatory markers, such as TNF- β , are highest in the morning, declining during the afternoon. As such, data could be skewed depending on sampling time. Awareness of these variations could enable elimination of bias.

Original article Wipfler, P. *et al.* Circadian rhythmicity of inflammatory serum parameters: a neglected issue in the search of biomarkers in multiple sclerosis. *J. Neurol.* doi:10.1007/s00415-012-6622-3

STROKE

12/15-lipoxygenase inhibitor shows promise as a first-line therapy for ischaemic stroke

Development of protective therapies for ischaemic stroke requires an understanding of the earliest affected pathways. In a recent study, upregulation of 12/15-lipoxygenase was observed in the ischaemic mouse brain and in two patients with stroke. A novel inhibitor of 12/15-lipoxygenase protected neuronal cells against oxidative stress *in vitro*, and, in the mouse model, reduced infarct sizes at 24 h and 14 days post stroke. The inhibitor was protective when given up to 4 h after stroke onset.

Original article Yigitkanli, K. *et al.* Inhibition of 12/15-lipoxygenase as therapeutic strategy to treat stroke. *Ann. Neurol.* doi:10.1002/ana.23734

MULTIPLE SCLEROSIS

Spinal cord MRI indices correlate with outcome in MS

Lesion load determined using conventional spinal cord MRI in multiple sclerosis (MS) displays a weak relationship with clinical outcome. In a new study involving 129 patients with MS, researchers demonstrated that diffusion tensor imaging indices of microstructural changes in the spinal cord independently correlated with outcomes including Expanded Disability Status Scale scores. These findings suggest that such MRI indices could provide important information about the substrates of limb disability in MS.

Original article Oh, J. *et al.* Multiparametric MRI correlates of sensorimotor function in the spinal cord in multiple sclerosis. *Mult. Scler.* doi:10.1177/1352458512456614

ALZHEIMER DISEASE

Oral glucose loading—a novel diagnostic tool for AD?

Animal studies have indicated a link between blood glucose and plasma amyloid- β (A β). Now, Takeda *et al.* have examined the response of patients with Alzheimer disease (AD) to glucose loading. After fasting, patients with AD and those with non-AD dementia were given oral glucose. An immediate, significant increase in plasma levels of A β ₄₀ and A β ₄₂ was evident only in patients with AD, suggesting this method could be used to distinguish patients with AD from those with non-AD dementia.

Original article Takeda, S. *et al.* Oral glucose loading modulates plasma β -amyloid level in Alzheimer's disease patients: potential diagnostic method for Alzheimer disease. *Dement. Geriatr. Cogn. Disord.* **34**, 25–30 (2012)