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IN BRIEF

MULTIPLE SCLEROSIS

Infertility treatment increases multiple sclerosis activity

Infertility treatment could exacerbate disease in multiple sclerosis (MS), a new study suggests. 16 patients with relapsing–remitting MS were monitored for 12 months prior to 26 treatment cycles of gonadotropin-releasing hormone agonists and follicle-stimulating hormone and were followed up for 9 months. Compared with baseline, treatment was associated with a sevenfold increased risk of disease exacerbation and a ninefold increased risk of enhanced MRI activity.

Original article Correale, J. *et al.* Increase in multiple sclerosis activity after assisted reproduction technology. *Ann. Neurol.* doi:10.1002/ana.23745

ALZHEIMER DISEASE

Cladribine promotes amyloid plaque formation in mice

The oncology drug cladribine, which is also approved for treatment of multiple sclerosis, could have amyloidogenic effects when administered long term, a study in mice has shown. In a mouse model of Alzheimer disease, 60-day treatment with cladribine more than doubled amyloid plaque burden in the brain. Such changes seemed to be driven by increased turnover of amyloid precursor protein. Moreover, like other cancer drugs, chronic cladribine treatment in mice was associated with deficits in learning skills. These findings highlight the need to monitor possible adverse neurological effects in patients receiving cladribine.

Original article Hayes, C. D. *et al.* Chronic cladribine administration increases amyloid beta peptide generation and plaque burden in mice. *PLoS ONE* 7, e45841 (2012)

NEUROIMMUNOLOGY

Cyclosporine A and azathioprine are effective adjunctive treatments for neuromyelitis optica

Neuromyelitis optica (NMO) and related NMO spectrum disorders are debilitating neuroinflammatory diseases for which no cure is available. In a retrospective analysis of clinical records of 52 patients with these disorders, Kageyama *et al.* evaluated the efficacy of various immunosuppressants. Cyclosporine A and azathioprine were found to enable reduced dose of coadministered prednisone, and significantly decreased relapse rates.

Original article Kageyama, T. *et al.* Combination of cyclosporine A with corticosteroids is effective for the treatment of neuromyelitis optica. *J. Neurol.* doi:10.1007/s00415-012-6692-2

PARKINSON DISEASE

Cortical neurodegeneration in Parkinson disease—role for apoptotic pathways

Parkinson disease (PD) is characterized by destruction of dopaminergic neurons in the substantia nigra, but death of neurons in other brain areas in this disease is less well understood. A study in 15 rapidly autopsied PD brains has shown upregulated signalling via the proapoptotic protein Bid in the temporal cortex compared with that of age-matched controls. Such cortical pathology might have a role in PD-associated cognitive decline.

Original article Jiang, H. *et al.* Bid signal pathway components are identified in the temporal cortex with Parkinson disease. *Neurology* 79, 1767–1773 (2012)