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IN BRIEF

PARKINSON DISEASE

Severe olfactory dysfunction may herald cognitive decline in Parkinson disease

Olfactory dysfunction has been identified as an early symptom of Parkinson disease (PD), and research from Japan now suggests that severe hyposmia predicts cognitive decline in patients with PD. The 3-year longitudinal study involved 44 patients with PD, none of whom had dementia at baseline. The risk of developing dementia during the course of the study was found to increase 18.7-fold for each 1-SD reduction in baseline odor identification scores.

Original article Baba, T. *et al.* Severe olfactory dysfunction is a prodromal symptom of dementia associated with Parkinson's disease: a 3 year longitudinal study. *Brain* **135**, 161–169 (2012)

MULTIPLE SCLEROSIS

Sunlight and vitamin D influence multiple sclerosis risk independently of *HLA-DRB1*15* status

Sunlight and vitamin D both protect against multiple sclerosis (MS), and the *HLA-DRB1*15* allele, the promoter of which contains a vitamin D response element, is associated with an increased risk of MS. A new Swedish study has explored the extent to which these factors interact in determining MS risk. The results indicate that some, but not all, of the effects of sunlight are mediated through vitamin D production, and that neither of these factors interacts with *HLA-DRB1*15*.

Original article Bäärnhielm, M. *et al.* Sunlight is associated with decreased multiple sclerosis risk: no interaction with human leukocyte antigen-DRB1*15. *Eur. J. Neurol.* doi:10.1111/j.1468-1331.2011.03650.x

ALZHEIMER DISEASE

The *MAPT* H1 haplotype is associated with reduced severity of Alzheimer disease pathology

The H1 haplotype at the microtubule-associated tau (*MAPT*) locus is associated with increased risk of the tauopathies progressive supranuclear palsy and corticobasal degeneration, but recent findings suggest that this haplotype has a protective effect against Alzheimer disease (AD) pathology. An autopsy study revealed that brains from individuals with the H1 haplotype had lower neurofibrillary tangle and amyloid plaque counts than those from individuals with other haplotypes at this locus.

Original article Wider, C. *et al.* An evaluation of the impact of *MAPT*, *SNCA* and *APOE* on the burden of Alzheimer's and Lewy body pathology. *J. Neurol. Neurosurg. Psychiatry* doi:10.1136/jnnp-2011-301413

PARKINSON DISEASE

Patients receiving duodenal levodopa infusion are at risk of vitamin B₁₂ deficiency

Researchers from Spain have warned that patients with Parkinson disease (PD) who are receiving duodenal levodopa infusion have an elevated risk of vitamin B₁₂ deficiency, which can, in turn, lead to the development of polyneuropathy. Santos-García *et al.* discuss the cases of five PD patients who presented with axonal polyneuropathy and vitamin B₁₂ deficiency while receiving this treatment. The authors also highlight a number of similar cases from the literature.

Original article Santos-García, D. *et al.* Polyneuropathy while on duodenal levodopa infusion in Parkinson's disease patients: we must be alert. *J. Neurol.* doi:10.1007/s00415-011-6396-z