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IN BRIEF

MULTIPLE SCLEROSIS

Interaction between IFN- β and vitamin D in modulation of MS risk

In a prospective study of 178 patients with multiple sclerosis (MS), researchers have found that treatment with IFN- β leads to an increase in serum vitamin D levels, through enhanced responsiveness to sun exposure. Importantly, IFN- β treatment was only protective against MS in patients with high vitamin D levels, and increased the risk of relapse in patients with vitamin D insufficiency. The results suggest that vitamin D levels should be monitored in patients receiving IFN- β .

Original article Stewart, N. *et al.* Interferon- β and serum 25-hydroxyvitamin D interact to modulate relapse risk in MS. *Neurology* doi:10.1212/WNL.0b013e31825fded9

MOTOR NEURON DISEASE

Neurofilament light chain as a biomarker of ALS

A biomarker of disease burden in amyotrophic lateral sclerosis (ALS) is lacking. Now, Tortelli *et al.* have shown that cerebrospinal fluid levels of neurofilament light chain (NFL) are inversely correlated with diagnostic delay and functional status, and positively correlated with progression rate. NFL levels could, therefore, represent a useful marker of disease activity and progression in ALS.

Original article Tortelli, R. *et al.* Elevated cerebrospinal fluid neurofilament light levels in patients with amyotrophic lateral sclerosis: a possible marker of disease severity and progression. *Eur. J. Neurol.* doi:10.1111/j.1468-1331.2012.03777.x

NEUROMUSCULAR DISEASE

Vitamin D supplementation for treatment of myasthenia gravis

A recent pilot study has suggested a role for vitamin D deficiency in myasthenia gravis (MG), an autoimmune neuromuscular disease. In 33 patients with MG, serum vitamin D levels were significantly lower than in 50 controls. Vitamin D supplementation in 13 patients improved the MG composite score—which provides a measure of fatigue—by 38%, suggesting a therapeutic strategy for functional improvement in this disease.

Original article Askmark, H. *et al.* Vitamin D deficiency in patients with myasthenia gravis and improvement of fatigue after supplementation of vitamin D3: a pilot study. *Eur. J. Neurol.* doi:10.1111/j.1468-1331.2012.03773.x

MULTIPLE SCLEROSIS

A distinct disease course for paediatric multiple sclerosis

Paediatric-onset multiple sclerosis (pMS), which begins before 18 years of age, might have a different course from adult-onset MS (aMS). In a study involving 21 patients with pMS and 21 patients with aMS who were matched for disease duration, Pichler *et al.* measured lesion characteristics with MRI, and assessed clinical disability. At a mean follow-up of 4.2 years in pMS and 3.1 years in aMS, disability was lower in pMS than in aMS, despite higher levels of destructive brain lesions in the paediatric cohort. The results point to a greater compensatory capacity in younger patients.

Original article Pichler, A. *et al.* Differences and similarities in the evolution of morphologic brain abnormalities between paediatric and adult-onset multiple sclerosis. *Mult. Scler.* doi:10.1177/1352458512448107