IN BRIEF

MULTIPLE SCLEROSIS

Successful trial of amiselimod for multiple sclerosis

A phase II trial of the sphingosine 1-phosphate 1 receptor modulator amiselimod has indicated that the drug is effective and safe in patients with relapsing-remitting multiple sclerosis. 415 patients were randomly assigned to receive 0.1 mg, 0.2 mg or 0.4 mg amiselimod or a placebo. The median total number of gadolinium-enhanced T1-weighted lesions during a 24-week treatment period was lower among patients who received 0.2 mg or 0.4 mg amiselimod than among those who received 0.1 mg or placebo. No serious adverse events were reported.

ORIGINAL ARTICLE Kappos, L. *et al.* Safety and efficacy of amiselimod in relapsing multiple sclerosis (MOMENTUM): a randomised, double-blind, placebo-controlled phase 2 trial. *Lancet Neurol.* <u>http://dx.doi.org/10.1016/S1474-4422(16)30192-2</u> (2016)

NEUROMUSCULAR DISEASE

Benefit of thymectomy in myasthenia gravis

Thymectomy is commonly performed in the treatment of myasthenia gravis, yet its benefit is unclear. A new randomized trial has shown that in patients with generalized nonthymomatous myasthenia gravis, thymectomy in combination with prednisone treatment is more effective than prednisone treatment alone. 126 patients were randomly assigned to the two treatment arms, and their average Quantitative Myasthenia Gravis score was assessed over a 3-year period. Those who underwent thymectomy had lower time-weighted average scores, and were less likely to require immunosuppression or hospitalization for disease exacerbations.

ORIGINAL ARTICLE Wolfe, G. l. et al. Randomized trial of thymectomy in myasthenia gravis, N. Engl. J. Med. 375, 511–522 (2016)

EPILEPSY

Tau pathology found in temporal lobe epilepsy

Tauopathy contributes to cognitive decline in temporal lobe epilepsy, according to a recent study of brain tissue from 33 patients who underwent temporal lobe resection. Tau neuropil threads, neurofibrillary tangles and/or pre-tangles were found in resected tissue from 31 of the 33 patients. The patterns of tau pathology resembled those seen in Alzheimer disease and chronic traumatic encephalopathy. More-extensive tau pathology was associated with a greater decline in cognitive function in the year before surgery, and between 3 months and 1 year after surgery. These results add epilepsy to the growing list of disorders in which tau pathology contributes to neurodegeneration, and could lead to new approaches to the diagnosis and treatment of cognitive decline in epilepsy.

ORIGINAL ARTICLE Tai, X. Y. et al. Hyperphosphorylated tau in patients with refractory epilepsy correlates with cognitive decline: a study of temporal lobe resections. Brain http://dx.doi.org/10.1093/brain/aww187 (2016)

STROKE

Aortic stiffness predicts cognitive impairment

Aortic stiffening increases the risk of incident mild cognitive impairment (MCI) and dementia, according to a recent study. The study included 1,101 dementia-free participants, in whom aortic stiffness was measured and related to the 10-year risk of mild cognitive impairment and dementia. Aortic stiffness was predictive of incident MCI in the entire population, and of incident dementia in people without diabetes.

ORIGINAL ARTICLE Pase, M. P. et al. Aortic stiffness and the risk of incident mild cognitive impairment and dementia. Stroke http://dx.doi.org/10.1161/strokeaha.116.013508 (2016)