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IN BRIEF

NEURODEVELOPMENTAL DISORDERS

Epilepsy and autism spectrum disorders may have a shared aetiology

People with epilepsy are 10 times more likely to be diagnosed with autism spectrum disorders (ASD) than are people without epilepsy, according to a new nationwide cohort study from Sweden. The population-based study included people with epilepsy ($n = 85,201$), along with their siblings ($n = 80,511$) and offspring ($n = 98,534$). The risk of ASD was also increased in siblings and offspring of individuals with epilepsy. The relationship between epilepsy and ASD was bidirectional: a diagnosis of ASD increased the risk of epilepsy almost fivefold. The findings suggest that disorders have a shared aetiology.

ORIGINAL ARTICLE Sundelin, E. K. *et al.* Autism and epilepsy. A population-based nationwide cohort study. *Neurology* http://dx.doi.org/10.1212/WNL.0000000000002836 (2016)

PARKINSON DISEASE

No diagnostic value of α-synuclein staining of the colon mucosa in idiopathic Parkinson disease

α-Synuclein has been proposed to be present in the colon mucosa in idiopathic Parkinson disease (IPD), reflecting the hypothesis that the disease begins in the gut. To assess the potential of α-synuclein in the colon mucosa as a biomarker for IPD, Antunes *et al.* performed immunohistochemical staining of colon mucosa biopsies from 19 patients with IPD and eight controls. The researchers reported that α-synuclein was present throughout the colon in both patients and healthy controls, indicating that conventional immunohistochemical staining of α-synuclein is not a useful biomarker for IPD.

ORIGINAL ARTICLE Antunes, L. *et al.* Similar α-synuclein staining in the colon mucosa in patients with Parkinson's disease and controls. *Mov. Disord.* http://dx.doi.org/10.1002/mds.26702 (2016)

ALZHEIMER DISEASE

Elevated neurogranin levels reveal early synaptic damage in *APOE*ε4* carriers

Levels of neurogranin are elevated in the cerebrospinal fluid of people with mild cognitive impairment who carry the apolipoprotein E (*APOE*) ε4 allele, new research has shown. *APOE*ε4* is the most important genetic risk factor for AD, but the pathophysiological link between the risk allele and AD has remained elusive. Neurogranin is a marker of synaptic injury, and the new data suggest that *APOE*ε4* carriers are susceptible to synaptic damage manifests as cognitive decline.

ORIGINAL ARTICLE Sun, X. *et al.* APOE ε4 carriers may undergo synaptic damage conferring risk of Alzheimer's disease. *Alzheimers Dement.* http://dx.doi.org/10.1016/j.jalz.2016.05.003 (2016)

NEUROMUSCULAR DISEASE

Methotrexate has no steroid-sparing effect in patients with generalized myasthenia gravis

Myasthenia gravis (MG) is a chronic autoimmune disease characterized by fluctuating muscle weakness, which, in the majority of patients, is treated with corticosteroids. In a recently published clinical trial, 50 patients with generalized MG were randomly assigned to prednisone + methotrexate or prednisone + placebo. The amount of prednisone that the patients used over 12 months did not differ between the methotrexate and placebo groups, indicating that this drug does not have a steroid-sparing effect in patients with MG.

ORIGINAL ARTICLE Pasnoor, M. *et al.* A randomized controlled trial of methotrexate for patients with generalized myasthenia gravis. *Neurology* http://dx.doi.org/10.1212/WNL.0000000000002795 (2016)