



## In Focus

Spotlight on the April 15 Issue

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Editor-in-Chief, *Neurology*<sup>®</sup>



### Efficacy of the anti-IL-6 receptor antibody tocilizumab in neuromyelitis optica: A pilot study OPEN ▲

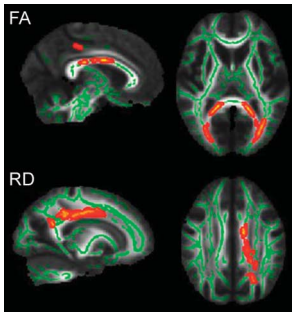
Seven patients with anti-aquaporin-4 antibody-positive neuromyelitis optica (NMO) or NMO spectrum disorders were recruited on the basis of their limited responsiveness to their current treatment. This study showed that monthly IV injections of tocilizumab, an anti-interleukin-6 receptor antibody, reduced relapses, neurogenic pain, and fatigue in patients with NMO.

See p. 1302

*From editorialists Rose-John & Gold: "Given the expression pattern of IL-6, targeting the bioactivity of this cytokine is a rational therapeutic approach for the treatment of autoimmune diseases."*

See p. 1294

### Posterior brain damage and cognitive impairment in pediatric multiple sclerosis



Combining advanced structural and functional imaging techniques, this study elucidated the mechanisms and severity of cognitive impairment in 35 pediatric patients with multiple sclerosis. It showed that cognitive dysfunction was associated with structural and functional abnormalities of the posterior

core regions of the default mode network.

See p. 1314; Editorial, p. 1296

### Congenital lethal motor neuron disease with a novel defect in ribosome biogenesis

Exome sequencing identified a de novo mutation in the *LAS1L* gene in a proband, with the pathogenicity of the mutation validated using a zebrafish model. The authors propose that disruption of ribosomal maturation may be a common pathogenic mechanism linking spinal muscular atrophy with respiratory distress phenotypes.

See p. 1322; Editorial, p. 1298

### Cardiorespiratory fitness and cognitive function in middle age: The CARDIA Study

The authors recruited 2,747 black and white men and women aged 18–30 years to investigate whether greater cardiorespiratory fitness is associated with better cognitive function. Better verbal memory and faster psychomotor speed at ages 43–55 years were associated with better cardiorespiratory fitness 25 years earlier.

See p. 1339

### Optimal target localization for subthalamic stimulation in patients with Parkinson disease OPEN

The authors examined the relationship between motor, cognitive, and psychiatric outcomes, and preoperative Parkinson disease clinical features, MRI measures, surgical procedure, and locations of the therapeutic contacts. Subthalamic nucleus (STN) was shown to improve motor symptoms, while postoperative cognitive deficit was mainly related to the surgery itself. Stimulation-induced hypomania was related to a combination of the disease characteristics and a more ventral STN location.

See p. 1352

### Skin nerve $\alpha$ -synuclein deposits: A biomarker for idiopathic Parkinson disease OPEN ▲

Twenty-one patients with idiopathic Parkinson disease were examined together with 20 patients with parkinsonisms assumed not to have  $\alpha$ -synuclein deposits. Phosphorylated  $\alpha$ -synuclein in proximal skin nerves disclosed by immunofluorescence is a sensitive biomarker for idiopathic Parkinson disease and is a promising approach to better understand pathogenetic mechanisms of synucleinopathies.

See p. 1362

### MATILDE chemotherapy regimen for primary CNS lymphoma: Results at a median follow-up of 12 years ▲

One-third of patients younger than 60 years managed with MATILDE chemotherapy and consolidative whole-brain irradiation were alive at 12 years, suggesting these patients were cured with this strategy. They also showed excellent neurologic performance, returning to work again at the same responsibility level without chronic hematologic or nonhematologic toxicity.

See p. 1370; Comment, p. 1373

NB: "Remote spinal cord injury in mucopolysaccharidosis type IVA after cervical decompression," see p. 1382. To check out other NeuroImages, point your browser to [Neurology.org](http://Neurology.org).

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