In Focus

Spotlight on the February 24 Issue

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Notable in *Neurology*

This issue features several articles on the topic of multiple sclerosis, including the investigation of leptomeningeal enhancement and the correlation between brain volume loss and clinical and MRI outcomes. Other featured articles focus on the correlations between peripheral nerve ultrasound and nerve conduction velocity, the acute and sustained response of persons with refractory partial seizures to responsive neurostimulation, and cortical superficial siderosis as a marker of vascular amyloid in cognitively impaired patients.

ARTICLES

Thalamus structure and function determine severity of cognitive impairment in multiple sclerosis

Using functional and structural MRI of the thalamus, this study compared thalamic volume, diffusivity, and functional connectivity in patients with multiple sclerosis to controls. Thalamic functional connectivity and diffusivity were only increased in more severely impaired patients with thalamic atrophy. These specific network changes may help predict cognitive impairment in multiple sclerosis.

See p. 776

From editorialists Chard & Benedict: "Further work is required to determine if the increase in thalamic and cortical synchronicity causes cognitive deficits or reflects the structural changes underlying them, but Schoonheim et al. suggest that there may be an independent contribution of neural functional changes, over and above those due to structural damage alone."

See p. 764

Placebo effect of medication cost in Parkinson disease: A randomized double-blind study ▲

Patients were randomly allocated to a "cheap" or "expensive" "novel injectable dopamine agonist" (placebo), underwent functional MRI and motor assessment by a blinded investigator within an hour of the intervention, and crossed over to the alternate arm 4 hours later. Although both placebos improved motor function, "expensive" placebo produced better motor function and decreased brain activation.

See p. 794

From editorialists LeWitt & Kim: "The findings of the current study build on other insights into placebo effect and PD, including evidence that regional release of dopamine in the striatum may be increased in response to expectation of reward or clinical improvement."

See p. 766

Peripheral nerve ultrasound changes in CIDP and correlations with nerve conduction velocity

In this case-control study, approximately 90% of the patients with chronic inflammatory demyelinating polyradiculoneuropathy (CIDP) showed ultrasound segmental nerve changes that correlated with the neurophysiologic characteristics. Nerve ultrasound, like MRI, plays a supportive diagnostic role in CIDP.

See p. 803; Comment, p. 808

Subclinical cardiac dysfunction increases the risk of stroke and dementia: The Rotterdam Study

The role of subclinical cardiac dysfunction in stroke and dementia remains unclear. In this study, poor diastolic function was associated with stroke, dementia, and MRI infarcts, whereas poor systolic function was related only to clinical stroke. Improving cardiac function is a potential target for prevention of stroke and dementia.

See p. 833

NB: "The internationalization of the American Academy of Neurology," see p. 856. To check out other Global Perspectives submissions, point your browser to Neurology.org. At the end of the issue, check out the 2 Neurolimages discussing congenital mirror movements and neuroinflammation and the effect of immunotherapy on anti-NMDAR encephalitis. This week also includes a Humanities essay titled "Creativity in medicine."

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