In Focus

Spotlight on the July 22 Issue

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Structural network efficiency is associated with cognitive impairment in small-vessel disease [OPEN](#)

The authors provided evidence of the relationship between cognitive impairment and white matter networks in cerebral small-vessel disease (SVD). Integrity of tractography networks explained variability in cognitive outcome and mediated known effects of conventional MRI markers of pathology, showing that brain networks have potential as a noninvasive measure of SVD.

See p. 304

From editorialists Marshall & Reijmer: "...advances in structural connectivity analysis as demonstrated in this study are helping to shape a new landscape of investigation that will continue to elucidate the complex relationship between vascular brain injury and cognitive decline."

See p. 296

Traumatic brain injury and risk of dementia in older veterans

The authors reviewed medical records of almost 200,000 veterans aged 55 years or older for traumatic brain injury (TBI) as a reason for treatment by the Veterans Health Administration medical system. Sixteen percent of veterans with a TBI developed dementia compared to only 10% of those without a TBI, which translates

into 60% increased risk.

See p. 312; Editorial, p. 298

APOE polymorphisms and cognitive functions in patients with brain tumors

The authors reported new evidence that the APOE $\epsilon 4$ allele and other APOE single nucleotide polymorphisms may increase the vulnerability of patients with brain tumors to cognitive dysfunction. These genetic risk factors may play an important role in moderating the response to CNS injury from radiotherapy and chemotherapy.

See p. 320; Comment, p. 326

Droxidopa for neurogenic orthostatic hypotension:

A randomized, placebo-controlled, phase 3 trial [OPEN](#)

In this double-blind randomized trial, the authors found that droxidopa was superior to placebo in relieving symptoms and was associated with an increase in standing systolic blood pressure. Droxidopa, a norepinephrine prodrug, is the first treatment approved in 20 years for neurogenic orthostatic hypotension, a syndrome characterized by blunted noradrenergic response to standing.

See p. 328

Seizure course during pregnancy in catamenial epilepsy

Antiepileptic drug treatment during pregnancy entails a precarious equilibrium between seizure management and teratogenic hazard. The authors evaluated the seizure course during pregnancy in 274 women with epilepsy and found catamenial epilepsy to be a predictor of favorable seizure control. Identifying factors able to predict seizure course during pregnancy holds relevant therapeutic implications.

See p. 339

Allopregnanolone levels and seizure frequency in progesterone-treated women with epilepsy

The authors attempted to determine whether allopregnanolone (AP) may mediate the seizure reduction obtained with progesterone treatment. AP data from 155 women with intractable focal-onset seizures were obtained. There was no correlation between percentage changes in AP levels and seizure frequencies from baseline to treatment for either the catamenial or noncatamenial stratum. There was a correlation for the subset who showed greater responder rate in the post hoc analysis of the trial. The findings support AP as a mediator of seizure reduction in progesterone-treated women with a substantial number of perimenstrually exacerbated seizures.

See p. 345

VIEWS & REVIEWS

Reporting standards for studies of diagnostic test accuracy in dementia: The STARDdem Initiative

Noel-Storr et al. utilized a modified Delphi process and then conducted a face-to-face meeting to determine how to supplement the generic standards of the STARD statement to enhance their utility in dementia research. Improving the quality of reporting of diagnostic test accuracy will result in better translation and application to clinical practice.

See p. 364

NB: "Central neurogenic hyperventilation," see p. 376. To check out other Video Neurolmages, point your browser to Neurology.org.

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