In Focus

Spotlight on the February 15 Issue

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Genotype-phenotype associations in *SCN1A*-related epilepsies

The authors reviewed over 750 *SCN1A* mutations, examining mutation class, distribution, and nature of amino acid substitution in relation to the epilepsy phenotype. Phenotypes were in part determined by defined physicochemical changes affecting a specific location in the ion channel protein structure.

See p. 594; Editorial, p. 588

Intermittent theta-burst transcranial magnetic stimulation for treatment of Parkinson disease

This randomized, double-blind, sham-controlled study investigated safety and efficacy of noninvasive intermittent theta-burst stimulation (iTBS) for the treatment of motor symptoms in Parkinson disease (PD). iTBS of the motor and prefrontal cortices improved mood and increased cortical excitability, but, while safe, failed to improve motor performance and functional status in PD.

See p. 601

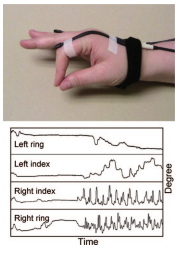
The blink reflex recovery cycle differs between essential and presumed psychogenic blepharospasm

The blink reflex recovery cycle measures the excitability of human brainstem interneurons and is abnormal in blepharospasm. The recovery cycle was significantly disinhibited in patients with classic blepharospasm, whereas patients with atypical blepharopasm did not differ from controls. More markers are needed to differentiate between organic and nonorganic movement disorders.

See p. 610; Editorial, p. 590

Motor cortex inhibition: A marker of ADHD behavior and motor development in children

Quantifying excessive mirror overflow in children with attention-deficit/hyperactivity disorder



The investigators in these 2 studies took advantage of the relationship between motor control and cognitive-emotional control to pursue the neurophysiology of impaired inhibition in ADHD. The authors found children with ADHD showed excessive motor overflow. They also found reduced transcranial magnetic stimulation evoked motor cortex inhibition. These quantitative biomarkers may prove critical to developing more effective interventions.

See p. 615 and p. 622

From editorialist Jonathan Mink: "The combination of quantitative behavioral methods and noninvasive physiologic methods has substantial promise for revealing more specifics about mechanisms underlying ADHD and other related disorders."

See p. 592

Postthrombolysis hemorrhage risk is affected by stroke assessment bias between hemispheres

Hemorrhage rates according to side of stroke were analyzed in 393 patients in the CT cohort and 400 patients in the MRI cohort, showing a 2-fold hemorrhage risk in right hemispheric strokes. When using the NIH Stroke Scale, risk estimation of thrombolysis should be adjusted for hemispheres.

See p. 629

Sex differences in risk factors for aneurysmal subarachnoid hemorrhage: A cohort study

In a cohort of 92,464 participants, current smoking was a much stronger risk factor for aneurysmal subarachnoid hemorrhage (aSAH) in women than in men. This finding may partially explain why aSAH disproportionally affects women and suggests a more aggressive smoking cessation intervention in females at risk of aSAH.

See p. 637

Survival after neuroAIDS: Association with antiretroviral CNS Penetration-Effectiveness score

The authors compared the survival of 9,932 HIV-infected patients diagnosed with a first neurologic AIDS-defining event. At the beginning of cART era, the CPE score was of importance for survival, while in the late cART period, the additional effect of CPE score vanished with more powerful antiretroviral regimens that increase plasma viral load control.

See p. 644

NB: "Historical Neurology: The epilepsy of Franklin Delano Roosevelt," see p. 668. To check out other Historical papers, point your browser to http://www.neurology.org. The Green Journal is also celebrating a historical milestone—60 years of publishing.

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