In Focus

Spotlight on the December 4 Issue

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Default-mode network connectivity in cognitively unimpaired patients with Parkinson disease

Resting-state fMRI at 3 T was performed in 16 cognitively unimpaired patients with Parkinson disease (PD) and in 16 controls. A disruption of the default-mode network was revealed in patients with PD, with absence of structural differences between patients and controls; altered default-mode network function may have a role in the development of cognitive decline in PD.

See p. 2226

From editorialists Filippi & Kulisevsky: "The main unanswered question is whether the observed functional abnormalities are sensitive to the progression of PD cognitive deficits and have a role in the prediction of the risk of developing dementia."

See p. 2222

Temporal association tracts and the breakdown of episodic memory in mild cognitive impairment

Twenty-five individuals with mild cognitive impairment and 20 controls underwent diffusion MRI and cognitive assessment. Three temporal pathways

were reconstructed by tractography: fornix, parahippocampal cingulum, and uncinate fasciculus. In mild cognitive impairment, due to a compromised fornix, alternative pathways may contribute disproportionately to episodic memory performance.

See p. 2233

Neurofascin as a target for autoantibodies in peripheral neuropathies

The authors detected autoantibodies to neurofascin by ELISA in 4% of patients with acute inflammatory demyelinating polyneuropathy and chronic inflammatory demyelinating polyneuropathy, but not in controls. Monoclonal antibodies to neurofascin enhanced and prolonged experimental neuritis; anti-neurofascin antibodies were pathogenic in some patients with inflammatory neuropathy.

See p. 2241; Editorial, p. 2224

Intrinsic epileptogenicity of cortical tubers revealed by intracranial EEG monitoring

Twenty-three intracranial EEG monitoring studies were reviewed from 17 children aged 1.3–7.7 years with tuberous sclerosis complex and intractable multifocal epilepsy, 14 of whom had a history of epileptic spasms. In young children with tuberous sclerosis complex and uncontrolled epilepsy, intracranial EEG may help the identification of epileptogenic tubers.

See p. 2249

Impairment of JCV-specific T-cell response by corticotherapy: Effect on PML-IRIS management?

The immune system was assessed before and 7 days after the administration of IV corticosteroids to 24 patients with relapsing multiple sclerosis. Methylprednisolone treatment decreased the frequency of JC virus (JCV)-specific CD8⁺ T cells producing interferon γ and tumor necrosis factor α , impairing control of JCV and suggesting this should be used to treat but not to prevent progressive multifocal leukoencephalopathy-immune reconstitution inflammatory syndrome.

See p. 2258

Orexin receptor antagonism for treatment of insomnia: A randomized clinical trial of suvorexant

Antagonism of wake-promoting orexins offers an alternative strategy for treating insomnia. The safety and efficacy of suvorexant, an orexin receptor antagonist, was demonstrated in a 4-week trial in 254 patients with primary insomnia, representing successful translation of a genetically identified target to a potential medication target for neuropsychiatric illness.

See p. 2265

Risk factors for intracerebral hemorrhage differ according to hemorrhage location

This study enrolled 597 patients with first-ever spontaneous intracerebral hemorrhage (ICH) and 1,548 controls. Conditional stepwise logistic regression modeling was used to determine independent risk factors for lobar and nonlobar ICH. APOE ϵ 2 or ϵ 4 genotype was associated with lobar ICH and hypertension was associated with nonlobar ICH.

See p. 2275

A novel hereditary extensive vascular leukoencephalopathy mapping to chromosome 20q13

Fourteen family members presented with white matter lesions at MRI examination, 5 of whom were symptomatic. The main clinical manifestations included gait disturbances, transient movement disorders, stroke, and cognitive dysfunction, establishing that this family is affected by a novel autosomal dominant vascular leukoencephalopathy mapping to chromosome 20q13.

See p. 2283

NB: "Resident & Fellow Pearls & Oysters: Central fourth nerve palsies," see p. e193. To check out other Resident & Fellow submissions, point your browser to www.neurology.org and click on the link to the Resident & Fellow Section.

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