In Focus

Spotlight on the January 24 Issue

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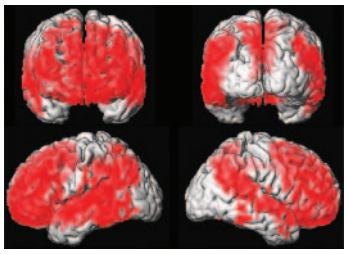
APOE modifies the association between Aβ load and cognition in cognitively normal older adults



An association between β-amyloid load on PET and cognitive performance was observed in a population-based sample of 408 cognitively normal older adults. This relationship was further modified by the *APOE* status, suggesting that *APOE* isoforms modulate the harmful effects of β-amyloid load on cognitive performance.

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From editorialists Buchman and Bennett: ". . . makes an important contribution to our understanding of AD, illustrating that even among persons without dementia or MCI, amyloid deposition is associated with very mild symptoms, especially among carriers of the APOE ε4 *allele."*

See p. 228

Nutrient biomarker patterns, cognitive function, and MRI measures of brain aging

Factor analysis was applied to a panel of nutrient biomarkers in order to recognize distinct nutrient patterns in circulation. Three nutrient patterns were associated with cognitive function and neuroimaging. These findings suggest that the mechanisms through which nutrients operate and the cognitive phenotype for which they associate are distinct.

See p. 241; Editorial, p. 230

Cerebral hemodynamics and cognitive impairment: Baseline data from the RECON trial

This trial used PET oxygen extraction fraction measurements to demonstrate that cerebral hemodynamic failure contributed independently to cognitive dysfunction in 43 patients with carotid artery occlusion. The finding establishes the physiologic measure upon which the extracranial-intracranial bypass will be tested.

See p. 250

Low-frequency rTMS promotes use-dependent motor plasticity in chronic stroke: A randomized trial

Thirty patients received 10 daily sessions of 1 Hz rTMS over the intact motor cortex immediately before or after patient therapy. Compared to sham stimulation, $rTMS_R$ induced a cumulative rebalancing of excitability between the hemispheres and a reduction of interhemispheric inhibition.

See p. 256

Muscle phosphorylase kinase deficiency: A neutral metabolic variant or a disease?

The authors examined metabolism during exercise in 2 patients with muscle phosphorylase kinase deficiency (PHK) and further defined the phenotype of this rare glycogen storage disease. Muscle PHK deficiency may present as an almost asymptomatic condition, despite a mild impairment of muscle glycogenolysis, raised CK levels, and glycogen accumulation in muscle.

See p. 265

FLNA genomic rearrangements cause periventricular nodular heterotopia

Screening of 35 patients with X-linked periventricular nodular heterotopia (PNH) and mutation-negative *FLNA* sequencing had copy number variants (CNVs) of *FLNA*. These results demonstrate that *FLNA* is prone to pathogenic rearrangements and highlight the importance of screening for copy number variants in individuals with PNH lacking *FLNA* point mutations.

See p. 269

GLOBAL PERSPECTIVES

The World Federation of Neurology: The way forward

Neurology is becoming globalized and its practitioners need to become aware and help to foster quality neurology and brain health worldwide.

See p. 286

NB: "Prestroke/poststroke fMRI in aphasia: Perilesional hemodynamic activation and language recovery," see p. 289. To check out other Clinical/Scientific Notes, point your browser to www.neurology.org.

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