In Focus

Spotlight on the October 7 Issue

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Association of cerebral microbleeds with mortality in stroke patients having atrial fibrillation

In stroke patients with atrial fibrillation, multiple cerebral microbleeds (CMBs), detected on gradient-recalled echo MRI, were associated with all-cause and ischemic stroke mortality. Strictly lobar CMBs were predictive of increased hemorrhagic stroke mortality. Particular concern is warranted in stroke patients with atrial fibrillation and multiple lobar CMBs who require long-term anticoagulation.

See p. 1308

From editorialist Mark Fisher: "Until their mechanisms are better understood, it seems prudent to assume that presence of cerebral microbleeds requires attention to underlying processes of both ischemia and hemorrhage."

See p. 1304

Patterns of intracranial vessel wall changes in relation to ischemic infarcts

Despite improvement in diagnosis, identifying the cause of stroke in young patients remains challenging. This study used 7.0 tesla MRI to describe patterns of intracranial vessel wall abnormalities in relation to ischemic infarcts. The results suggest that the combination of intracranial vessel wall abnormalities and infarct type is related to different etiologies.

See p. 1316

Voxel-based cervical spinal cord mapping of diffusion abnormalities in MS-related myelitis

Fourteen patients with multiple sclerosis who were within 4 weeks of the onset of cervical myelitis and 11 controls underwent cervical cord diffusion tensor imaging. Cervical cord registration was good in 11 of

the 14 patients. Mapping diffusion abnormalities within the cervical cord using a novel voxel-based approach may localize clinically relevant pathology.

See p. 1321; Editorial, p. 1306

In vivo P-glycoprotein function before and after epilepsy surgery

Epilepsy is not controlled by drugs in 30% of patients. The authors measured P-glycoprotein (Pgp) function in drug-resistant temporal lobe epilepsy before and after surgery. Seizure freedom and reduction in antiepileptic drug load were associated with reversal of Pgp upregulation, suggesting that Pgp overactivity may be targeted therapeutically to reverse Pgp-mediated drug resistance.

See p. 1326

Long-term follow-up in patients with CCFDN syndrome

Sixteen patients with congenital cataracts, facial dysmorphism, and neuropathy (CCFDN) syndrome were followed for 10 years. The authors suggest that CCFDN should be classified as a recessive demyelinating sensory-motor neuropathy, with axonal loss as a major determinant of long-term outcomes and disability. Patients should benefit from early and ongoing physiotherapy.

See p. 1337

Influence of BDNF Val66Met on the relationship between physical activity and brain volume

This study shows the relationship between physical activity and larger hippocampal volume. However, this effect was restricted to individuals homozygous for valine in the brain-derived neurotrophic factor gene; the effect was not present in methionine carriers. These results emphasize the importance of investigating the interplay between physical activity, brain-derived neurotrophic factor, and its genetic variants.

See p. 1345; Comment, p. 1351

Self-reported memory complaints: Implications from a longitudinal cohort with autopsies

Self-reported subjective memory complaints were common among cognitively normal elderly individuals and increased risk of future cognitive impairment. The authors showed impairments were 6–9 years away, and almost half of those with memory complaints died without impairment but had increased Alzheimer pathology at autopsy. These results suggest that subjective memory complaints should be taken seriously.

See p. 1359

NB: "How transparent are migraine clinical trials? Repository of Registered Migraine Trials (RReMiT)," see p. 1372. To check out other Views & Reviews, point your browser to Neurology.org.

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Neurology 2014;83:1303

DOI 10.1212/WNL.0000000000000897

This information is current as of October 6, 2014

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