In Focus

Spotlight on the January 10 Issue

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MRI cortical thickness biomarker predicts AD-like CSF and cognitive decline in normal adults

The authors used a biomarker derived from structural MRI scans to identify elderly adults at high risk for preclinical Alzheimer disease (AD). These individuals were at greater risk for cognitive decline suggestive of early mild cognitive impairment-stage AD over 3 years after the MRI scan and likely harbored pathogenic spinal fluid proteins.

See p. 84

From editorialists Resnick and Scheltens:

"In this group in particular, the presence of the 'AD signature' in the structural, downstream, imaging marker may be predictive of who will actually decline."

See p. 80

Nicotine treatment of mild cognitive impairment: A 6-month double-blind pilot clinical trial

Stimulation of brain nicotinic receptors may be helpful in patients with early signs of cognitive impairment. This study on cognitive performance and clinical status in 67 nonsmoking patients with amnestic mild cognitive impairment demonstrated that nicotine treatment improved cognitive performance along with subject-rated measures of memory symptoms.

See p. 91

Risk factors for lacune subtypes in the Atherosclerosis Risk in Communities (ARIC) Study

The 2 main pathologies of lacunar infarctions (lipohyalinosis and microatheroma) seem to have different risk factors. Adjusting for age, hypertension, race, and smoking in data from 1,827 participants, MRI lesions, probably lipohyalinotic, were associated with diabetes while others, likely microatheromatous, were linked to LDL cholesterol.

See p. 102; Editorial, p. 82

Cost comparison between the atraumatic and cutting lumbar puncture needles

Using a decision-analytic model, the investigators determined that lumbar puncture performed using the atraumatic needle was associated with an average cost savings of $26.07 per patient compared to the commonly used cutting needle. The atraumatic needle was associated with a lower incidence of post-lumbar puncture headache and an overall cost savings to the health care system.

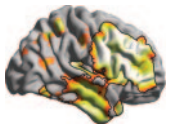
See p. 109

Recovery after spinal cord infarcts: Long-term outcome in 115 patients

The authors reviewed 115 patients with spinal cord infarcts (SCI) and found that fewer than half of surviving patients required a wheelchair after a mean follow-up of 3 years. Four of 10 patients initially requiring a wheelchair regained the ability to walk. Substantial recovery over time is not uncommon in patients with SCI.

See p. 114

Mapping thalamocortical network pathology in temporal lobe epilepsy



This cross-sectional study assessed 36 patients with drug-resistant temporal lobe epilepsy (TLE) and 19 controls using high-resolution MRI. The degree and distribution of thalamic pathology, related to the topography and extent of neocortical atrophy, lends support to the concept that the thalamus is a crucial relay structure in the epileptogenic network of TLE.

See p. 129

SPECIAL ARTICLE

Evidence-based guideline: Antiepileptic drug selection for people with HIV/AIDS: Report of the Quality Standards Subcommittee of the American Academy of Neurology and the Ad Hoc Task Force of the Commission on Therapeutic Strategies of the International League Against Epilepsy

When co-treatment with antiepileptic drug (AED) and antiretroviral agents is necessary, careful consideration is needed to the drug combination and additional monitoring may be necessary. Problems most evident with but not limited to the AED regimen included enzyme-inducing agents.

See p. 139

NB: Resident & Fellow Mystery Case: "An unusual lung mass causing focal weakness," see p. e4. 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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