In Focus

Spotlight on the January 1 Issue

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AMERICAN ACADEMY OF NEUROLOGY®

Stroke Prognostication using Age and NIH Stroke Scale: SPAN-100

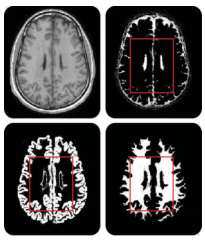
When applied to the National Institute of Neurological Disorders and Stroke tissue plasminogen activator (tPA) trial data, the combination of age plus NIH Stroke Scale score (SPAN-100) was associated with higher risk of intracerebral hemorrhage in SPAN-100–positive (score ≥ 100) patients, whether receiving tPA or not, compared to SPAN-100–negative patients. The benefit of tPA was apparent in the SPAN-100–positive group, but not in the SPAN-100–negative group.

See p. 21

From editorialists Rabinstein & Rundek: "Should any score predicting very poor outcome despite thrombolysis, or a high risk of hemorrhage with thrombolysis, be deemed sufficient to withhold IV tPA administration?"

See p. 15

Serial proton MR spectroscopy of gray and white matter in relapsing-remitting MS



Eighteen recently diagnosed, mildly disabled patients, all on immunomodulatory medication, were scanned semiannually for 3 years with T1- and T2-weighted MRI and 3D proton magnetic resonance spectroscopic imaging at 3 T, with 10 controls followed annually. Diffuse white matter glial abnormalities were larger than the axonal abnormalities and increased over time despite immunomodulatory treatment.

See p. 39; Editorial, p. 17

Active MS is associated with accelerated retinal ganglion cell/inner plexiform layer thinning

One hundred sixty-four patients with multiple sclerosis (MS) and 59 controls underwent spectral-domain optical coherence tomography scans every 6 months for a period of 21.1 months. Patients developing optic neuritis were excluded from analysis. MS patients with clinical and radiologic nonocular disease activity early in the disease course exhibited accelerated ganglion cell/inner plexiform thinning.

See p. 47; Editorial, p. 19

Clinical relevance of differential lymphocyte recovery after alemtuzumab therapy for multiple sclerosis

Fifty-six patients were followed for 39.5 months post alemtuzumab treatment with interval clinical assessments, lymphocyte immunophenotyping, and MRI. Timing and degree of lymphocyte recovery were correlated with the re-emergence of disease activity, with new disease activity recorded in 14% of patients. Differential lymphocyte reconstitution after alemtuzumab treatment may be a biomarker for relapse.

See p. 55

Spinal cord lesions in patients with clinically isolated syndrome: A powerful tool in diagnosis and prognosis

The authors followed 121 monofocal, relapsing onset clinically isolated syndrome (CIS) patients with either spinal cord (SC, n = 63) or brain symptom onset. MRI of the brain and SC were performed shortly after onset with patients followed for 24 to 119 months. Presence of SC lesions was predictive for conversion to clinically definite MS, especially in patients with nonspinal CIS who did not fulfill MRI criteria.

See p. 69

Temporal discrimination in patients with dystonia and tremor and patients with essential tremor

Somatosensory temporal discrimination thresholds (TDT) and temporal discrimination movement thresholds (TDMT) were tested in 39 patients with either tremor associated with dystonia or essential tremor presenting with upper-limb tremor; findings were compared with 25 controls. TDT and TDMT testing may be useful for differentiating tremor associated with dystonia and essential tremor.

See p. 76

Amyloid is linked to cognitive decline in patients with Parkinson disease without dementia

This study examined 46 patients with Parkinson disease (PD) without dementia, of whom 35 had normal cognition and 11 met criteria for PD with mild cognitive impairment at baseline. At baseline measurements, amyloid burden did not distinguish between cognitively impaired and unimpaired patients with PD without dementia, but the study suggests that amyloid contributes to cognitive decline over time.

See p. 85

High risk of severe cardiac adverse events in patients with mitochondrial m.3243A>G mutation

The authors identified 41 patients carrying the m.3243A>G mutation, of whom 38 had clinical manifestations of mitochondrial encephalomyopathy, lactic acidosis, and stroke-like episodes and 3 were asymptomatic. Patients with the m.3243A>G mutation had a high incidence of cardiac death and life-threatening adverse events. Left ventricular hypertrophy was the only measure independently associated with occurrence of these events.

See p. 100

NB: "Dreams/explorations," see p. 121. To check out other Visions, point your browser to www.neurology.org.

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Neurology 2013;80;1
DOI 10.1212/WNL.0b013e31827b1bad