In Focus

Spotlight on the May 6 Issue

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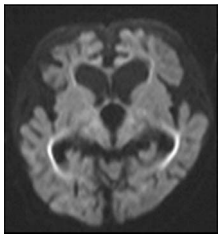
Utility of an immunotherapy trial in evaluating patients with presumed autoimmune epilepsy

Twenty-nine patients were enrolled in this trial to evaluate immunotherapy as an aid to diagnosis of suspected autoimmune epilepsy. They received 6–12 weeks of IV methylprednisolone, IV immune globulin, or both, with 18 patients responding, of whom 10 became seizure-free; 52% improved with the first agent.

See p. 1578; Editorial, p. 1572

PIGA mutations cause early-onset epileptic encephalopathies and distinctive features



The authors identified *PIGA* mutations by whole-exome sequencing in 5 patients from 4 families in a cohort of 172 probands with early-onset epileptic encephalopathies. The phenotypic severity was correlated with *PIGA* activity. *PIGA* mutations constitute inherited glycosylphosphatidylinositol anchor deficiency syndromes, which can be screened by the flow cytometric analysis of peripheral blood cells.

See p. 1587

Presynaptic dopamine depletion predicts levodopa-induced dyskinesia in de novo Parkinson disease

This study demonstrated that de novo patients with Parkinson disease (PD) and levodopa-induced dyskinesia (LID) showed less putaminal dopamine transporter activity at initial evaluation than those without LID. It provides convincing evidence that severe dopamine depletion when starting levodopa in PD is a risk factor for developing LID.

See p. 1597

From editorialists LeWitt & Mouradian: "What makes LID happen appears to be a more complex tale of the brain's molecular biology mingling PD with levodopa. Screening for gene mutations and single nucleotide polymorphisms has highlighted several factors influencing the emergence of LID."

See p. 1574

Rates of β-amyloid accumulation are independent of hippocampal neurodegeneration

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The authors describe a 2-feature biomarker approach to classifying cognitively normal subjects that is complementary to the National Institute on Aging–Alzheimer's Association preclinical staging criteria. The rate of β-amyloid accumulation is not influenced by neurodegeneration and may be a biologically independent process. In contrast, β-amyloid pathophysiology increases or catalyzes neurodegeneration.

See p. 1605; Editorial, p. 1576

Insulin-like growth factor-1 and risk of Alzheimer dementia and brain atrophy

The authors identified a novel pathway involved in Alzheimer disease (AD). Among 3,582 dementia-free Framingham participants, lower serum insulin-like growth factor-1 (IGF-1) was associated with higher risk of developing AD dementia and smaller MRI brain volumes. Since IGF-1 levels can be increased by diet, exercise, or pharmacologic interventions, they may prove useful in AD prevention trials.

See p. 1613

Structural MRI correlates of apathy symptoms in older persons without dementia: AGES-Reykjavik Study

In 4,354 participants without dementia (aged 76 ± 5 years) from the AGES-Reykjavik Study, apathy symptoms were associated with considerably smaller gray and white matter and thalamic volumes. To reduce the behavioral burden of vascular and dementing disease, apathy symptoms should be assessed in this older population without dementia.

See p. 1628

Functional recovery after moderate/severe traumatic brain injury: A role for cognitive reserve?

Seven hundred sixty-nine patients aged 23 years or older who were admitted for rehabilitation following moderate to severe traumatic brain injury and had at least 1 year of follow-up were included in this study. Educational attainment was an independent predictor of 1-year disability-free recovery even when adjusting for other prognostic factors.

See p. 1636; Comment, p. 1641

NB: "Multiple sclerosis care in Latin America," see p. 1660. To check out other Global Perspectives, point your browser to Neurology.org.

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