Notable in Neurology This Week

This issue features an article that investigates long-term outcomes of patients with epilepsy and malformations of cortical development; another examines the trajectories of neurologic recovery 12 months after hospitalization in patients with severe COVID-19. A featured Editorial discusses the benefits of epilepsy surgery, highlighting surgical resection as the procedure most likely to result in long-term seizure freedom.

Articles

Benefits and Risks of Epilepsy Surgery in Patients With Focal Cortical Dysplasia Type 2 in the Central Region

This retrospective study investigated the benefits and functional risks associated with focal cortical dysplasia type 2 (FCD2) resections in the central region of the brain. Seizure-free outcomes were obtained in 88% of patients without major permanent deficit, demonstrating that severe focal epilepsy caused by central FCD2 can be treated safely and successfully.

Prediction of Hidden Coronary Artery Disease Using Machine Learning in Patients With Acute Ischemic Stroke

This study sought to develop machine learning models for the prediction of coronary artery disease (CAD) in patients with acute ischemic stroke because of the high rate of comorbidity between these conditions. This clinical application of machine learning provided a high degree of accuracy in identifying hidden CAD, highlighting the potential for precision medicine to optimize and individualize patient care.

From Editoralist Kerr: “...[T]he Heo et al. algorithms have great potential to supplement the knowledge of cerebrovascular experts by identifying which individuals may benefit from additional cardiovascular evaluation.”

Proteinopathy and Longitudinal Cognitive Decline in Parkinson Disease

Patients with Parkinson disease (PD) commonly experience cognitive decline, and increased α-synuclein, tau, and β-amyloid accumulation may mediate this association. This longitudinal study found that the presence or risk of β-amyloid accumulation consistently predicted cognitive

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decline and time to dementia in patients with PD, demonstrating β-amyloid’s high potential as a prognostic biomarker for cognitive changes in PD.

Factors Associated With Long-term Survival in Women Who Get Pregnant After Surgery for WHO Grade II Glioma

Women who become pregnant after surgery for WHO grade II gliomas may have a higher risk of glioma progression. This study found that postoperative tumor residual volume and tumor speed growth are predictive factors conditioning postpregnancy survival, highlighting the importance of identifying and counseling at-risk patients with a desire for motherhood.

NEW EPISODE

The Neurology® Podcast provides practical, relevant, and timely information for neurologists and all clinicians to practice the best possible neurologic-based medicine for our patients. Each episode features interviews with authors of recent articles from the Neurology journals and beyond. NPub.org/podcast

NB: “Subacute Hemichorea Secondary to Disseminated Cryptococcus Infection in an Immunocompetent Host,” p. 36. To check out other Resident & Fellow Section Teaching Video NeuroImage articles, point your browser to Neurology.org/N and click on the link to the Resident & Fellow Section. Also featured in this issue is a NeuroImage discussing posterior reversible encephalopathy syndrome with spinal cord involvement 2 months after a burn injury. This week also includes a Resident & Fellow Clinical Reasoning article titled “A 77-Year-Old Man With Involuntary Movements, Sleep Changes, Falls, Bulbar Symptoms, and Cognitive Complaints.”