Notable in Neurology
This issue features an article identifying a shared genetic predisposition between thyrotoxic periodic paralysis and sporadic periodic paralysis and another investigating the influence of common and low-frequency genetic variants on the risk of ischemic stroke. A featured article focuses on the relationships between markers of kidney disease (estimated glomerular filtration rate and urine albumin to creatinine ratio) and cerebral blood flow and white matter volume in hypertensive adults.

ARTICLES

Spatial-temporal functional mapping of language at the bedside with electrocorticography
The authors developed and tested a system to assess behavioral tasks that leverages electrocorticography’s temporal resolution displaying the evolution of high gamma responses across all recording sites. Their findings supported the feasibility and clinical utility of online human language functional mapping, particularly in clinical circumstances in which time is limited and comprehensive stimulation mapping is impractical.

See p. 1181

From editorialists Asano & Gotman: “Investigators should be aware that the anterior-temporal and orbitofrontal regions proximal to the temporal/ocular muscles are particularly susceptible for spurious high-gamma augmentation derived from artifacts of noncerebral origin.”

See p. 1174

Gray and white matter changes linking cerebral small vessel disease to gait disturbances
The authors investigated the topographic changes of white matter integrity and cortical thickness related to gait disturbances in 129 patients with subcortical vascular cognitive impairment. Their findings suggested that white matter hyperintensity-related cortical thinning and disrupted integrity of periventricular white matter were linked to gait disturbances.

See p. 1199

From editorialists Werring & Camicioli: “The role of the cortical thinning found in this study may have relevance to other populations at risk of gait disorders: for example, in individuals with or at risk of neurodegenerative conditions such as Alzheimer or Parkinson disease. Further study in such populations will be an important next step.”

See p. 1177

Hostile attitudes and effortful coping in young adulthood predict cognition 25 years later
In a cohort followed for 25 years, the authors found that higher scores in personality measures of hostility and effortful coping with stress were associated with worse cognition 25 years later. Their findings suggest that interventions that promote positive social interactions may reduce risk of late-age cognitive impairment.

See p. 1227

The syndrome of polymicrogyria, thalamic hypoplasia, and epilepsy with CSWS
Epilepsy with continuous spike-and-wave complexes during sleep (CSWS), a severe syndrome that remits before adolescence, is often associated with polymicrogyria. In this cohort, volumetric assessment of the malformed hemispheres and ipsilateral thalami identified the risk of incurring CSWS. Early prediction of this type of epilepsy allows planning of medical and surgical treatments.

See p. 1250

NB: “Olfactory neuroblastoma: A frontal lobe disorder and a runny nose,” p. 1264. To check out other NeuImages, point your browser to Neurology.org. At the end of the issue, check out the Clinical/Scientific Notes discussing cognitive decline in infantile Pompe disease and isolated cortical vein thrombosis in autoimmune polyglandular syndrome type 2. This week also includes a Resident & Fellow Section Mystery Case titled “Pneumorrhachis: A radiographic diagnosis.”