Interictal increase of CGRP levels in peripheral blood as a biomarker for chronic migraine

Plasma samples were assessed from 103 women with chronic migraine, 31 controls, 43 women with episodic migraine, and 14 patients with episodic cluster headache. Increased CGRP level measured in peripheral blood outside migraine attacks and in the absence of symptomatic medication could be a biomarker aiding the diagnosis of chronic migraine.

See p. 1191; Editorial, p. 1184

Updated estimate of AQP4-IgG serostatus and disability outcome in neuromyelitis optica

The authors performed a clinicoserologic study of 163 patients with neuromyelitis optica. Cell-based assays were most sensitive for AQP4-IgG detection; further, the timing of blood draws and immunosuppressant therapy influenced serostatus. Disability outcome was more favorable for patients in the post-AQP4-IgG era, likely relating to earlier initiation of immunosuppressant therapies.

See p. 1187

From editorialists Fujihara & Sato: “So, if there are truly seronegative NMO cases, research may open a new page in our understanding of this unique disease.”

See p. 1186

Recessive truncating titin gene, TTN, mutations presenting as centronuclear myopathy

Whole-exome and whole-genome sequencing performed in 29 patients with centronuclear myopathy identified 5 patients with compound heterozygous TTN mutations, causing truncated titin proteins and severe sarcomeric disorganization in affected muscles. TTN mutations can cause presentations associated with centronuclear myopathy and explain a share of patients diagnosed with this disease.

See p. 1205; Editorial, p. 1189

Clinical and MRI activity as determinants of sample size for pediatric multiple sclerosis trials

Various models were fitted to new T2 lesion count, annualized relapse rate (ARR), and time to first relapse (TTFR) endpoints for 42 children with multiple sclerosis. Six-month phase II trials using new T2 lesion count as an endpoint are feasible in this population; however, trials using ARR or TTFR as endpoints need to be 2 years in duration and require multicenter collaboration.

See p. 1215

Autoimmune disease preceding amyotrophic lateral sclerosis: An epidemiologic study

The immune system has been postulated to modulate the pathogenesis of amyotrophic lateral sclerosis (ALS). This study used a large database of linked hospital admissions to demonstrate that several autoimmune disorders were associated with a small increased risk of ALS, suggestive of shared genetic or environmental factors.

See p. 1222

Nonmotor and diagnostic findings in subjects with de novo Parkinson disease of the DeNoPa cohort

A cohort of 159 patients with Parkinson disease (PD) was compared with 110 controls, using a combination of nonmotor scales, serum cholesterol combined with ECG, and olfactory tests. Nonmotor symptoms (such as sleep), olfaction, and diagnostic tests can differentiate between early PD patients and controls, and may lead to improved diagnostic criteria for PD in the future.

See p. 1226

Antisaccade task reflects cortical involvement in mild cognitive impairment

In patients with mild cognitive impairment (MCI), simple measurements indicating severity of underlying pathology are needed. The authors examined an antisaccade task as a measure of executive function. In patients with MCI, antisaccade performance correlated with executive function and degree of thinning in Alzheimer-associated cortical regions.

See p. 1235

VIEWS & REVIEWS

Migraine and structural changes in the brain: A systematic review and meta-analysis

Six population-based and 13 clinic-based studies were identified. The studies suggested that structural brain changes, including white matter abnormalities, silent infarct-like lesions, and volumetric changes in gray and white matter regions, were more common in migraineurs than in control groups.

See p. 1260
