Research Articles

Prediagnostic Neurofilament Light Chain Levels in Amyotrophic Lateral Sclerosis

To determine whether elevated levels of plasma neurofilament light chain (NfL) are present prior to a diagnosis of amyotrophic lateral sclerosis (ALS), the authors compared plasma samples of 84 individuals who developed ALS versus controls. Higher ALS risk was associated with higher NfL levels in samples collected within 5 years of diagnosis. Page 709

Longitudinal Assessment of Strength, Functional Capacity, Oropharyngeal Function, and Quality of Life in Oculopharyngeal Muscular Dystrophy

The authors of this study examined the natural history of oculopharyngeal muscular dystrophy, a slow-progression muscle disease. Patients were examined twice, 20 months apart, using a series of tests, which included speech tasks and deltoid muscle strength measured by fixed dynamometry. Several clinical outcome measures detected progression, with deltoid muscle strength indicating the greatest decline. Page 710

Prevalence and Risk Factors of Cerebral Microbleeds: Analysis From the UK Biobank

In this large population-based UK Biobank study of healthy individuals with a mean age of 62, definite cerebral microbleed (CMB) prevalence was found to be approximately 7%. In addition, there were distinct risk factor profiles for CMB in lobar and deep locations consistent with different underlying pathophysiologic processes. Page 712

Continued
Combined Neurophysiologic and Neuroimaging Approach to Reveal the Structure-Function Paradox in Cervical Myelopathy

Using tract-specific MRI, multimodal evoked potentials, and quantitative sensory testing, researchers examined individuals with focal spinal lesions. Seventy-one percent of study participants presented with structural damage within spinal nociceptive pathways, but 50% of these participants also presented with complete functional sparing, suggesting that structural damage in the spinal cord does not equate to functional somatosensory deficits.