



In Focus

Spotlight on the August 5 Issue

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Interleukin-6 and C-reactive protein as predictors of cognitive decline in late midlife [OPEN](#)

This highly powered longitudinal study investigated the predictive value of 2 peripheral markers of inflammation for later cognitive decline. The authors examined the association between interleukin-6 (IL-6) and C-reactive protein (CRP) measured in midlife (participants aged 56 years at the start of cognitive testing) and subsequent cognitive decline. Elevated IL-6 but not CRP in midlife predicted cognitive decline. Results suggest that inflammatory markers are associated with cognition in both cross-sectional and longitudinal associations.

See p. 486; Editorials, pp. 478 and 480

White matter correlates of cognitive dysfunction after mild traumatic brain injury

The authors reported a longitudinal MRI investigation using diffusion tensor imaging in a large cohort of mildly injured patients and assessed the role that diffuse axonal injury plays in acquired cognitive deficits following mild traumatic brain injury (TBI). The chronic pattern of changes in this patient cohort reflected damage to axonal structure. These findings suggest a strong neurobiological basis for cognitive dysfunction following mild TBI and provide new insights into postinjury tissue damage.

See p. 494

Visuoperception test predicts pathologic diagnosis of Alzheimer disease in corticobasal syndrome

The authors probed the “ventral” (object) and “dorsal” (spatial) streams of visual processing and found that certain subtests distinguished corticobasal syndrome (CBS) caused by Alzheimer disease (AD) from non-AD pathology. Specific deficits in visual perception can help clinicians distinguish CBS caused by AD from that caused by corticobasal degeneration or other pathologic causes. CBS is a pathologically heterogeneous clinical syndrome, but early evidence suggests that the different pathologies that can result in CBS may be clinically separable.

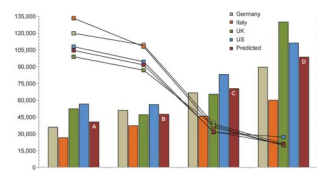
See p. 510

Narrative discourse deficits in amyotrophic lateral sclerosis

The authors demonstrated a narrative discourse deficit in 26 patients with amyotrophic lateral sclerosis (ALS) patients compared to 19 age-matched healthy controls. Ten of the 26 patients with ALS underwent structural MRI to measure gray matter and white matter atrophy. The authors found that coherence of the narratives was partially related to executive impairment but not motor deficit. Narrative discourse production is related to gray matter atrophy and reduced fractional anisotropy in a network of brain regions associated with discourse. This study is valuable because quantification of conversational information vs single-word generation better emulates patient experience.

See p. 520

The burden of Duchenne muscular dystrophy: An international, cross-sectional study [OPEN](#)



This study estimated the cost of illness and economic burden of Duchenne muscular dystrophy (DMD) in Europe and the United States. Seven hundred seventy patients (173 German, 122 Italian, 191 from the UK, and 284 from the US) completed a questionnaire on health care use, quality of life, work status, informal care, and household expenses to estimate costs of DMD. The authors showed that DMD is associated with a substantial economic burden carried by affected families.

See p. 529

Mental incapacity in patients undergoing neuro-oncologic treatment: A cross-sectional study

This large case series assessed the mental capacity to consent to treatment in patients with intracranial tumors. Capacity was assessed using the MacArthur Competence Assessment Tool for Treatment, a semistructured interview based around the real treatment decision. The authors found that a substantial proportion (25%) of these patients do not have the requisite mental capacity to consent.

See p. 537; Editorial, p. 482

Treatment outcome after failure of a first antiepileptic drug [OPEN](#)

This systematic and prospective study followed a large number of patients with new-onset epilepsy in a randomized, controlled, multicenter trial for a period of 6 years. The authors assessed the probability of 12-month seizure remission and treatment failure in patients after failure of a first antiepileptic drug. The authors identified heterogeneous clinical factors that influenced outcomes and provided prognostic multivariable models that allow stratification of patients according to likely outcome.

See p. 552

NB: “Transient cervical cord swelling in monomelic amyotrophy,” see p. e77. To check out other Resident & Fellow Clinical Reasoning submissions, point your browser to Neurology.org and click on the link to the Resident & Fellow section.

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