Robert A. Gross, MD, PhD, FAAN, Editor-in-Chief, *Neurology*®

Notable in *Neurology* this week

This issue features an article that identifies a genetic association with white matter hyperintensities and ischemic stroke; another assesses the relation of neurodegenerative pathologies to trajectories of cognitive ability changes. A featured article genotypically and phenotypically characterizes a pediatric myotonic dystrophy type 1 cohort.

Articles

Association of peripheral blood pressure with gray matter volume in 19- to 40-year-old adults

This article emphasizes the importance of blood pressure variations in normal ranges for young adults' brain integrity. MRI in 423 healthy young adults showed that blood pressure $\geq 120/80$ mm Hg is associated with lower regional gray matter volumes. Blood pressure relates to brain alterations continuously and earlier than previously assumed.

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Physical activity, common brain pathologies, and cognition in community-dwelling older adults

Physical activity may maintain cognitive function in older adults. In this study, higher levels of physical activity were associated with better cognition in older adults when controlling for indices of Alzheimer disease and other brain pathologies. Physical activity may provide cognitive reserve maintaining function independent of accumulating brain pathologies.

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From editorialists Mortimer & Stern: "Although important questions remain, currently available data suggest that promotion of an active lifestyle in late as well as early life that includes regular physical activity and exercise may be beneficial in reducing the risk for dementia, both through increases in reserve and reduction of Alzheimer neuropathology."

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Type 2 diabetes mellitus, brain atrophy, and cognitive decline

Understanding mechanistic and protective factors linking type 2 diabetes and dementia may guide management. The authors studied pathways linking type 2 diabetes and cognitive decline in a sample from the Alzheimer's Disease Neuroimaging Initiative. Neurodegeneration contributes to type 2 diabetes-related cognitive decline, while brain cognitive reserve may be protective.

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MORE ONLINE

🎧 Editor's Summary

Audio summary of highlighted articles.

NPub.org/edsum

Continued

Cardiac and skeletal muscle effects in the randomized HOPE-Duchenne trial

Halt Cardiomyopathy Progression (HOPE)-Duchenne is a clinical trial of intracoronary injection of allogenic cardiosphere derived cells (CAP-1002) in 25 patients with Duchenne muscular dystrophy. At 12 months postinjection, myocardial scarring was reduced while thickening and upper limb function improved. CAP-1002 appears safe and demonstrates efficacy for both cardiac and upper limb function.

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NB: "Development of a neurology training program in Haiti," p. 391. To check out other Global Perspectives, point your browser to Neurology.org/N. At the end of the issue, check out the NeuroImage illustrating Chinese pure alexia after acute infarction. This week also includes a Resident & Fellow Right Brain poem titled "Flip to the other side."

NEW EPISODE

February 19, 2019

CME Opportunity:

Listen to this week's *Neurology* Podcast and earn 0.5 AMA PRA Category 1 CME Credits™ by answering the multiple-choice questions in the online Podcast quiz.

Physical activity, common brain pathologies, and cognition in community-dwelling older adults (see p. 370)

1. Physical activity, common brain pathologies, and cognition in community-dwelling older adults
2. What's Trending: Deep space medicine

In the first segment, Dr. Jeff Burns talks with Dr. Aron Buchman about his paper on physical activity, common brain pathologies, and cognition in community-dwelling older adults. In the second part of the podcast, Dr. Jason Crowell focuses his interview with Dr. Alejandro Rabinstein on deep space medicine.

Disclosures can be found at Neurology.org.

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Spotlight on the February 19 issue

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