

Conference Digest: Insights from Summer Neurology Meetings



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Alzheimer's Association International Conference

Diet and Cognition: A New Link. Research suggests that the benefits of a healthy diet may extend to cognitive health. Among nearly 6,000 older adults in the Health and Retirement study, investigators found that those who consistently followed diets long known to contribute to cardiovascular health were also more likely to maintain strong cognitive function in old age. In particular, they found that the specially designed Mediterranean-DASH Intervention for Neurodegenerative Delay (MIND) diet was associated with a 30 to 35 percent lower risk of cognitive impairment in healthy older adults. Additionally, those with healthier diets exhibited meaningful preservation of cognitive function.

Several other studies from the meeting explored links between diet, lifestyle, and cognition: Visit alz.org/aaic for more information.

Self-Administered eTest for Detecting Cognitive Impairment Shows Value. The self-administered eSAGE (BrainTest Inc.) test performs similarly to its validated pen-and-paper counterpart (SAGE) in detecting mild cognitive impairment and early dementias, according to new research. Investigators showed that eSAGE performs similarly with neuropsychological batteries as well as other gold standard tests. Moreover, it shows no scale bias compared to the paper test.

To learn more about eSAGE, read *Practical Neurology*® magazine's Q&A with Douglas Scharre, MD in the January/February 2017 edition, available online at PracticalNeurology.com/2017/02.

American Headache Society Annual Meeting

Non-Invasive Devices Show Promise. A randomized placebo-controlled study showed that non-invasive caloric vestibular stimulation (nCVS, Scion Neurostem) can prevent episodic migraine. Patients who used the nCVS device for two 18-minute sessions daily reported

1.8 fewer migraines after one month compared to baseline. At three months, patients experienced an average of 3.3 fewer migraines compared to baseline.

Another study showed the benefits of non-invasive vagus nerve stimulation (gammaCore, electroCore LLC) in episodic headache. Results from a randomized placebo-controlled trial called ACT2 showed that eight times as many patients with episodic cluster headaches achieved pain-free status after 15 minutes with use of gammaCore, as compared to a sham device.

For more insight on the role of non-invasive neurostimulation in migraine care, read Stewart Tepper, MD's article in the May 2017 edition of *Practical Neurology*®, entitled "Non-Invasive Neuromodulation: The Next Step in Migraine Care?" The article is available online at PracticalNeurology.com/2017/05.

Amgen's CGRP Inhibitor Reduces Migraine Days. Phase 2 data show that Amgen's investigational CGRP inhibitor erenumab is effective at preventing migraine in patients experiencing 15 or more migraine days per month. Patients treated with erenumab experienced a reduction of 6.6 monthly migraine days, as compared to a 3.5-day reduction in placebo. In addition, days requiring acute pain-relief medications were also significantly reduced in both dosage arms.

International Congress of Parkinson's Disease and Movement Disorders

Sensor Data Useful in Parkinson's Disease. A new study suggests that smartphones represent a valuable resource in gaining mobility data for patients with Parkinson's disease. Evaluating 44 patients in a home-based setting, investigators used smartphone-based assessments over a 24-week period and found that mobility patterns correlated with disease severity, as measured by clinical gold standards. Though the results are preliminary, investigators noted that they show the potential of sensor data in studying Parkinson's disease, opening the door for future inquiries.

Investigational Amantadine Reduces Levodopa-Induced Dyskinesia in Phase 3 Trial

Results from the Phase 3 EASE LID clinical trial, published online in *JAMA Neurology* (June 17), show that the investigational agent ADS-5102 (amantadine, Adamas Pharmaceuticals) reduces levodopa-induced dyskinesia (LID) in patients with Parkinson's disease. Patients who received ADS-5102 experienced a significantly greater decrease in LID at 12 weeks than those who received placebo, as measured by the Unified Dyskinesia Rating Scale (UDysRS). The authors noted that this improvement was maintained at 24 weeks, with ADS-5102-treated patients again showing a significantly greater decrease than placebo-treated patients. Additionally, ADS-5102 treatment resulted in a statistically significant increase in ON time without troublesome dyskinesia and a statistically significant decrease in OFF time at 12 and 24 weeks.

ADS-5102 has a Prescription Drug User Fee Act (PDUFA) action date of August 24, 2017. If approved, ADS-5102 will be the first medicine indicated for the treatment of LID.

Findings Support Benefits of Investigational Tramiprosate in Mild Alzheimer's Disease

Phase 3 findings published in the *Journal of the Prevention of Alzheimer's Disease* (2017; 4(3): 149-156) show that the investigational agent ALZ-801 (tramiprosate, Alzheon) may offer cognitive and functional benefits to patients with mild disease.

Researchers analyzed APOE 4/4 homozygotes based on disease severity and found that patients in the mild disease at baseline subgroup showed larger efficacy signals. Moreover, the cognitive effect of tramiprosate in patients with mild disease increased significantly with time, suggesting a potential disease-modifying effect.

According to the authors, this clinical profile is consistent with the recently discovered molecular mechanism of action, where tramiprosate inhibited monomer aggregation and formation of toxic A β oligomers. ■

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THE FDA FILE



First MRI System Cleared for Neonatal Brain Imaging

The FDA cleared the Embrace Neonatal MRI System, the first system for neonatal brain and head imaging in neonatal intensive care units (NICU). The Embrace Neonatal MRI System may be used on neonates with a head circumference up to 38 centimeters and weight between 1 kg and 4.5 kg.

The system has a temperature-controlled incubator placed directly into the MRI system, minimizing movement of the baby. If urgent access to the baby is necessary during the imaging process, the baby can typically be removed from the system in less than 30 seconds.

Dysport Approved for Lower Limb Spasticity

The FDA has expanded the indication of Dysport (abobotulinumtoxinA, Ipsen Biopharmaceuticals) to include lower limb spasticity. In a Phase 3 study, adult patients treated with Dysport following a stroke or traumatic brain injury showed improvement in muscle tone at the ankle joint at four weeks. The duration of response for the majority of patients was between 12 and 16 weeks, while some patients experienced response for as long as 20 weeks.

Dysport has already been approved for the treatment of upper limb spasticity in adults as well as for the treatment of lower limb spasticity in pediatric patients ages two years and older.

Low-Dose Fenfluramine Granted Orphan Status for LGS

The FDA has granted orphan drug designation to ZX008 (Zogenix), an investigational low-dose fenfluramine liquid solution for Lennox-Gastaut Syndrome (LGS). Zogenix will initiate a Phase 3 clinical trial in LGS in the second half of this year. ZX008 is also under investigation for Dravet syndrome, for which it has been granted orphan drug designation, as well.

VNS Therapy Approved for Partial Onset Refractory Seizures in Children Four Years of Age and Older

The FDA has approved VNS Therapy (LivaNova) in patients as young as four years of age with partial onset refractory seizures. Originally approved for patients ages 12 years and older, VNS therapy is a minimally invasive treatment option designed to prevent seizures before they start.