Predicting developmental outcomes in preterm infants: A simple white matter injury imaging rule

White matter injury (WMI) is the characteristic brain injury in preterm neonates. Using a standardized viewing plane, lesion location anterior to the mid-ventricle line is predictive of adverse outcomes, providing a valuable tool for neurologists to evaluate WMI. A simple imaging rule on early MRI is useful for counseling families.

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From editorialists Juhász & Shevell: “The results of the study of Cayam-Rand et al. deliver a simple, practical, and robust imaging predictor that can be readily implemented in routine practice to obtain a fast, reliable initial estimation of the risk for long-term neurocognitive complications in preterm infants.”

Page 569

Developmental MRI markers cosegregate juvenile patients with myoclonic epilepsy and their healthy siblings

Patients with juvenile myoclonic epilepsy (JME) and their siblings have similar brain structural anomalies. Compared to controls, they show increased frontal cortical folding complexity. In these regions, abnormal geodesic distance suggests decreased network efficiency. In JME, structural MRI markers of brain development and connectivity are likely heritable.

Page 577; Editorial, page 571

Early molecular oxidative stress biomarkers of ischemic penumbra in acute stroke

In this study, molecular correlates of perfusion–diffusion mismatch—a surrogate marker of ischemic penumbra—were identified. Elevated hyperacute plasma levels of oxidative stress markers were independently associated with mismatch and mismatch salvage. This is a step toward identifying novel therapeutic targets and biomarkers of salvageable brain tissue.

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Continued
Vamorolone trial in Duchenne muscular dystrophy shows dose-related improvement of muscle function

An effective, yet safer, corticosteroid has long been sought for treatment of chronic inflammatory states. Vamorolone was tested in boys with Duchenne muscular dystrophy and showed dose-dependent improvements over time in functional outcome measures with potential improvements in safety. This new drug holds promise as an effective yet safer steroidal anti-inflammatory agent.

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NB: “Dravet syndrome and parkinsonism: A case report investigating the dopaminergic system,” p. 595. To check out other Clinical/Scientific Notes, point your browser to Neurology.org/N. At the end of the issue, check out the Resident & Fellow Mystery Case article discussing a case of a 59-year-old man with hypertension, hyperlipidemia, and type 2 diabetes presenting with sudden-onset bilateral ptosis, ataxia, and confusion. This week also includes a Resident & Fellow Teaching NeuroImages article titled “Frontal lobe involvement in adult-onset cerebral X-linked adrenoleukodystrophy.”


2. What’s Trending: Drug pricing update: Part 2

In the first segment, Dr. Stacey Clardy talks with Dr. Mauricio Farez about his practice guideline update summary on vaccine-preventable infections and immunization in multiple sclerosis. In the second part of the podcast, Dr. Gordon Smith continues his discussion with Dr. Steve Pearson on a drug pricing update. Their previous discussion on drug pricing was featured in two parts on January 8, 2019, and January 15, 2019.

Disclosures can be found at Neurology.org.