In Focus

Spotlight on the July 31 Issue

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

Exome sequencing identifies a novel multiple sclerosis susceptibility variant in the *TYK2* gene

The authors used next-generation sequencing of 4 individuals to identify a novel susceptibility variant in *TYK2*. Exome sequencing is a quick and cost-effective method; this study illustrates its utility in sequencing a small number of cases from a single family to identify a novel variant.

See p. 406

From editorialists Doherty & Bamshad: "...ES/WGS approaches provide an enormous opportunity to find variants, genes, and pathways underlying neurologic disorders, heretofore undiscovered by traditional experimental approaches."

See p. 396

A randomized trial of stress management for the prevention of new brain lesions in MS

This randomized trial found that a 16-session individual stress management program reduced the development of new gadolinium-enhancing and T2-weighted MRI brain lesions in patients with MS. The effect is no longer evident after treatment cessation, underscoring the effect of treatment, but indicating the need for longer, cost-effective treatment models.

See p. 412; Editorial, p. 398

High critical care usage due to pediatric stroke: Results of a population-based study

This paper identified cases of symptomatic childhood stroke among 256 children, with 61% admitted to ICU, 32% being intubated, and 11% receiving decompressive neurosurgery. Altered mental status at presentation was the strongest predictor for all 3 measures. Future studies are needed to address optimal neurocritical care management after pediatric stroke.

See p. 420; Editorial, p. 400

Environmental risk factors for REM sleep behavior disorder: A multicenter case-control study

This study examined 694 participants (347 patients, 347 controls) with idiopathic REM sleep behavior disorder, who were free of dementia and parkinsonism. Potential environmental and lifestyle risk factors were assessed via standardized questionnaire. Smoking, head injury, pesticide exposure, and farming were potential risk factors for idiopathic REM sleep behavior disorder.

See p. 428; Editorial, p. 402

Coevolution of white matter hyperintensities and cognition in the elderly

One hundred fifty individuals, including cognitively normal elders and those diagnosed with Alzheimer disease and mild cognitive impairment, completed serial episodic memory and executive function evaluations and had serial MRI scans sufficient for longitudinal measurement of white matter hyperintensities. White matter degeneration may be associated with decline in memory and executive function.

See p. 442

Highly fatal fast-channel syndrome caused by AChR ϵ subunit mutation at the agonist binding site

The authors used the candidate gene approach to identify the pathogenic mutation in the AChR ϵ subunit. Introduction of a cationic Arg into the anionic environment of α/ϵ AChR binding site hinders stabilization of cationic ACh by aromatic residues and accounts for the perturbed kinetic properties of the receptor.

See p. 449; Editorial, p. 404

Endothelial progenitor cells: A new key for endothelial dysfunction in migraine

The authors investigated endothelial function with flow-mediated dilation, calcitonin gene-related peptide (CGRP), vascular endothelial growth factor (VEGF), nitric oxide (NO), and endothelial progenitor cells (EPC) in 47 patients with migraine. Reduced EPC and high levels of CGRP, VEGF, and NO have been found in migraineurs, suggesting endothelial dysfunction and a new potential therapeutic target.

See p. 474

NB: "Fluorodeoxyglucose F18 PET in progressive emotional dysprosody," see p. 480. To check out other Clinical/Scientific Notes, point your browser to www.neurology.org.

Podcasts can be accessed at www.neurology.org

Neurology[®]

Spotlight on the July 31 Issue

Robert A. Gross

Neurology 2012;79;395

DOI 10.1212/WNL.0b013e318261700e

This information is current as of July 30, 2012

Updated Information & Services

including high resolution figures, can be found at:
<http://n.neurology.org/content/79/5/395.full>

Permissions & Licensing

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
http://www.neurology.org/about/about_the_journal#permissions

Reprints

Information about ordering reprints can be found online:
<http://n.neurology.org/subscribers/advertise>

Neurology® is the official journal of the American Academy of Neurology. Published continuously since 1951, it is now a weekly with 48 issues per year. Copyright Copyright © 2012 by AAN Enterprises, Inc.. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.