

HIV neurology

The importance of viral load and therapies aimed at reducing viral load are highlighted in this issue. Childs et al. (p. 607) found that levels of plasma HIV RNA and CD4 counts can predict HIV-associated dementia and sensory neuropathy. ♦ Clifford et al. (p. 623) report improved survival in patients with HIV and progressive multifocal leukoencephalopathy who are treated with highly active anti-retroviral therapy. The length of survival is correlated with viral load reduction. In the accompanying editorial, Dolin (p. 440) discusses the impact that viral load assessment and treatment has had on the course of HIV-associated illnesses. He emphasizes the need to improve strategies for the use of highly active antiretroviral therapy so as to maximize patient adherence to treatment regimens and minimize emergence of resistant virus.

Alternative therapies

Two articles report on and interpret the prevalence and predictors of nonprescribed treatments—alternative therapy. Schwartz et al. (p. 626) address the use of unconventional therapy among patients with MS, and Verhoef et al. (p. 617) report on alternative therapy use among patients with brain tumors.

Neuromuscular disease

Bouchard et al. (p. 498) evaluate the clinicopathologic findings and prognostic factors in 100 patients with chronic inflammatory demyelinating polyneuropathy. They conclude that long-term prognosis depends, in large part, on axonal loss. ♦ Using SCID mice grafted with lymphocytes

from patients with myasthenia gravis, Wang et al. (p. 484) determined that CD4+ cells are necessary for myasthenia gravis pathogenesis. In the accompanying editorial, Hohlfeld (p. 443) discusses the applications and limitations of currently available animal models as they relate to study of immunologic disease in humans.

Epilepsy

Two articles address the importance of neurotransmitter levels in epilepsy. Using MR spectroscopy, Petroff et al. (p. 473) report that topiramate increases brain GABA in humans to levels that may lead to antiepileptic action. Mathern et al. (p. 453) report a study comparing brain tissue from patients with and without temporal lobe epilepsy. The authors assess differences between epileptics and nonepileptics with regard to hippocampal GABA and glutamate transporter immunoreactivity. In the accompanying editorial, Gross and Theodore (p. 441) review both articles and discuss how an understanding of drug mechanisms and the pathophysiology of seizure disorders contributes to emerging treatments of epilepsy. ♦ Kuzniecky et al. (p. 479) correlated MRI findings and surgical outcome in patients with intractable temporal lobe epilepsy. The authors report that bilateral hippocampal atrophy is frequent in patients with temporal lobe developmental malformations. However, it is the presence of bilateral amygdala or amygdala-hippocampal atrophy that is associated with a higher risk of seizure recurrence.

Brain injury

Luukinen et al. (p. 557) examine the relationship between minor

and major head injuries caused by fall accidents and subsequent cognitive decline among a cohort of older adults. Their results suggest that only the occurrence of major head injury increases the risk of cognitive decline.

Stroke

There are theoretical concerns that mannitol use in large cerebral infarctions may cause neurologic deterioration by preferentially shrinking noninfarcted tissue, thereby aggravating midline tissue shifts. Manno et al. (p. 583) studied MRI before, during, and after administration of a single large bolus of mannitol in seven patients with edema and midline shift caused by large hemispheric infarctions. The authors found that tissue shifts were not changed and no patients experienced clinical worsening. In fact, although average scores for the group did not change, some measures of clinical status improved in certain patients.

Motor system physiology

Rossi et al. (p. 537) studied the effects of isometric exercise and a precision grip task on motor evoked potentials (MEPs) in proximal and distal upper extremity muscles. In comparing the exercises, the authors report that the MEPs were facilitated to different degrees in proximal and distal muscles. In the accompanying editorial, Schieber (p. 445) discusses how this ability to alter MEP amplitudes reflects the plasticity of the motor cortex. There is a correlation between physiologic changes in motor cortex and acquisition or loss of motor skills.

Neurology[®]

February Highlights
Neurology 1999;52;437
DOI 10.1212/WNL.52.3.437

This information is current as of February 1, 1999

Updated Information & Services

including high resolution figures, can be found at:
<http://n.neurology.org/content/52/3/437.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 . All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.

