Surgical decompression for diabetic neuropathy

The American Academy of Neurology Practice Parameter by Chaudhry et al. reviews the value of surgical decompression of peripheral nerves for diabetic neuropathy. Published studies lack adequate randomization, satisfactory definition of peripheral neuropathy, and suitable outcome measures. Thus, there is no established benefit of this surgery for diabetic neuropathy.

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Social adjustment after surgery for Parkinson disease

Despite improvement in motor disability, mood, and quality of life following subthalamic nucleus stimulation, 29 prospectively assessed parkinsonian patients encountered personal, familial, and socio-professional difficulties. Schüpbach et al. point out that there is a need for a psychological preparation before and follow-up after neurosurgery.

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Neuropsychological effects of bilateral STN stimulation

Smeding et al. examined cognitive functioning and quality of life in patients with PD before and 6 months after bilateral STN stimulation. There was improvement in motor symptoms and QOL. However, patients showed a decline in executive functioning which affected their daily life. Nine percent had psychiatric complications.

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The editorial by Saint-Cyr and Albanese about these two articles raises new questions on the selection of appropriate candidate patients for STN DBS. Most implanting centers follow inclusion criteria derived from the recommendations of the CAPSIT panel, where the main emphasis is on the appropriateness of diagnosis and on motor features to predict motor response. There is a need for new consensus guidelines considering motor and nonmotor (neuropsychological, psychological, social, and psychiatric) factors to predict outcome and adaptation after surgery and to identify which psychosocial interventions should be performed before and after implant.

see page 1799

Cluster headache associated with hypocretin receptor gene

In a case-control study from Germany, Schürks et al. found a significant association between homozygous carriers of the G1246A polymorphism in the hypocretin receptor 2 gene and cluster headache.

see page 1917

The effect of a 2-month drug-free period in patients with medication overuse

Zeeburg et al. found that of 216 patients withdrawn from medication overuse, 45% improved, 48% had no change, and 7% had an increase in headaches. The improvement varied considerably with a 67% reduction in headache frequency in migraine, 0% in tension-type headache, and 37% in patients with both migraine and tension-type headache. In established medication overuse, patients benefit from withdrawal.

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Functional cerebral venous outflow obstruction in patients with TGA

Chung et al. demonstrated intracranial venous reflux in 5 of 10 patients with TGA by MRA, supporting venous ischemia as a mechanism for some patients with TGA. Compression leading to occlusion of the left brachiocephalic vein by sternum and aorta during regular respiration contributes to this abnormal venous reflux.

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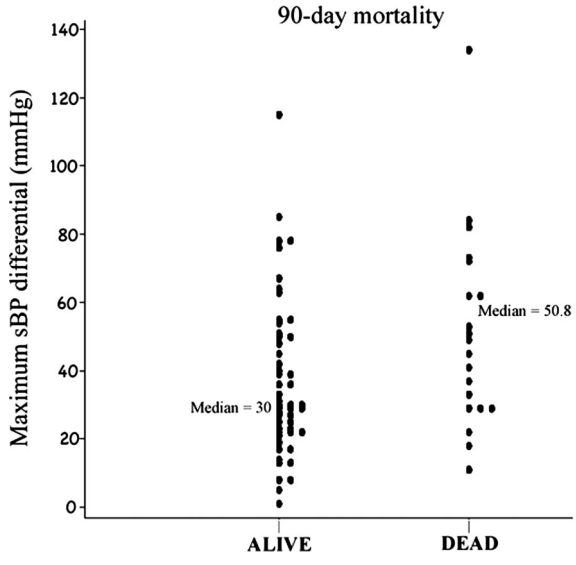
BP variability predicts worse outcome after ischemic stroke



Stead et al. report wide fluctuation in BP in the first hours after ED presentation for ischemic stroke is associated with increased 90-day mortality. Median observed differences for those who died vs those who survived was dBP: 44.5 vs 25 mm Hg, $p < 0.001$; and sBP: 47 vs 30 mm Hg, $p = 0.047$.

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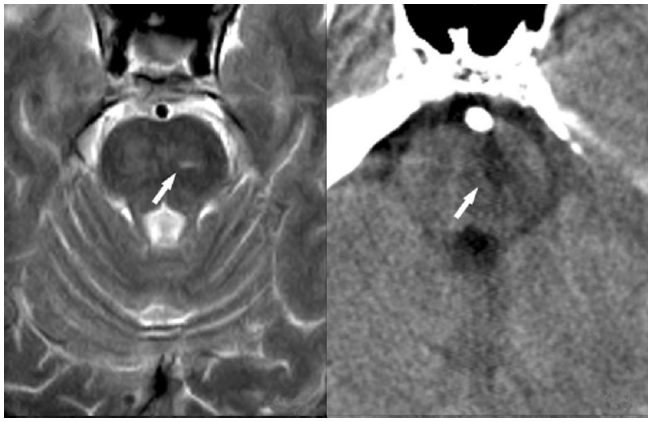
Perforator stroke after intracranial stenting



Preoperative T2-weighted MRI (left figure). Small infarct (arrow) in the left pons. Repeat brain CT (right figure) after stenting of the basilar artery stenosis enlarged pontine infarct (arrow).

Jiang et al., studying perforator artery-territory strokes, resulting from intracranial stenting, found that patients with a preoperative perforator infarct adjacent to the stenosis had a higher postoperative perforator stroke risk.

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The editorial by Levy and Chaturvedi notes that perforator strokes occurred in only 3.0% of patients. Patients with preprocedural infarction of territories fed by perforators had more postprocedural infarction or transient worsening than did patients without pretreatment perforator-region infarctions (8.2% vs 0.8%). Drawing an analogy with coronary artery stenting they note that balloon-expandable stents are no longer the only stenting option for patients with intracranial symptomatic atherosclerotic disease. Submaximal angioplasty and slow inflation techniques for intracranial atherosclerotic lesions holds promise for reducing complications of intracranial stenting. It will be interesting to learn whether submaximal angioplasty with deployment of self-expanding stents results in a similar rate of postprocedural strokes in the subgroup presenting with perforator-region infarction.

see page 1803

Molecular genetic studies in cluster headache

Baumber et al. investigated a resource of cluster headache sporadic and family based samples for a role of genes in disease predisposition. A 9cM genome-wide scan identified four putative disease loci. Together with the absence of association to the candidate gene *HCRTR2*, the authors interpret the data as supporting heterogeneity for cluster headaches.

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AD pathology in persons without cognitive impairment

Bennett et al. found that nearly 40% of older persons without dementia or mild cognitive impairment met National Institute on Aging-Reagan neuropathologic criteria for AD. The findings support the concept that some type of neural reserve can protect people from having memory problems from AD pathology.

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In this editorial, Lippa and Morris note that this study excluded both individuals with MCI and with dementia yet still found that 36.3% of cognitively normal adult subjects meet pathologic criteria for AD. However, those with neuropathologic AD had small but significant deficits in measures of episodic memory. Because episodic memory loss typically is the initial clinical manifestation of AD, any memory loss in older adults may represent underlying pathology rather than simple "normal aging." Thus, minor episodic memory loss in older adults may not be "normal."

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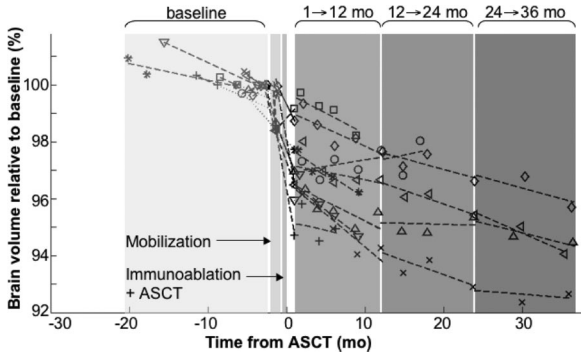
Brain atrophy after chemotherapy



Chen et al. quantitated brain atrophy after immunoablation and autologous hematopoietic stem cell transplantation for MS. The rate of brain atrophy accelerated tenfold for 3 months after the treatment.

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Erasmus Darwin: Pioneer of the clinical neuroscience

The Gardner-Thorpe and Pearn historical paper on Erasmus Darwin (1731–1802) notes that his early description of the distinction between sensory and motor pathways was published more than a decade before Charles Bell (1774–1841) and Francois Magendie (1783–1855) published their independent work on the separate existence of motor and sensory nerves.

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