October 9 Highlights

Association studies: *Neurology* guidelines: Two examples

"The goal is to publish rigorous, high-quality studies that are likely to provide new insights into genetic predominance."

The editorial by Bird et al. examines the importance as well as the potential problems inherent in association studies. They note that there are two genetic association studies in this issue. One, by Weinshenker et al., failed to confirm an earlier report (in *Neurology*) associating a TNF-α polymorphism with susceptibility to MS. Another negative study by Desautels et al. pursued the plausible hypothesis that dopaminergic receptors or related enzymes would be associated with restless legs syndrome. Bird et al. propose succinct guidelines (which constitute a working draft for *Neurology* policy—now approved by the *Neurology* Editorial Board) that reflect number of subjects and controls, statistical analyses, biological relevance of the gene studied, and replication in an independent sample. The Editors and Editorial Board welcome commentary on the matter (www.neurology.org/cgi).

see pages 1153, 1304, and 1341

Identifying and remembering faces

Two papers and an editorial consider the task of facial recognition—perhaps the most intriguing ability of the human mind. Barton et al. showed that five patients with acquired (from adult onset trauma, stroke, or encephalitis) prosopagnosia could be induced to recognize faces (i.e., without awareness, and detectable only through indirect behavioral tests or physiologic responses) when given semantic cues, even in four with impaired face perception. Developmental (from early static encephalopathy) prosopagnosia was not associated with covert abilities, presumably because this precludes formation of links between semantic knowledge and facial memories.

see page 1161

Face memory deficits following frontal lobe damage

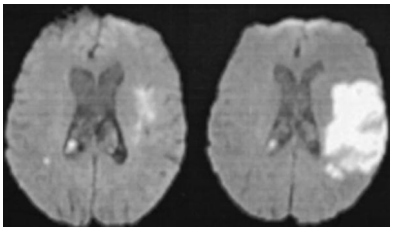
Rapcsak et al. studied face recognition memory in patients with frontal lobe lesions. Compared with normal controls, frontal patients demonstrated marked anterograde and relatively mild retrograde face memory impairment. Right frontal lesions were associated with increased false recognition of unfamiliar faces. These findings suggest a role for prefrontal cortex in the executive control of face memory encoding and retrieval.

see page 1168

The accompanying editorial by Chatterjee and Farah notes how the Barton et al. and Rapcsak et al. papers on face processing contribute a rapprochement between to two views of cognition: modular *vs a* distributed *network that processes information. They point out that while facial recognition is clearly modular, having a discrete area in the temporal–occipital cortex, a network of influences from frontal and other regions which influence facial memory, familiarity, and emotional impact.*

see page 1151

Acute stroke: Perfusion-weighted imaging predicts severity of lesions on DWI



Baseline (left) and follow-up (right)

Thijs et al. studied 12 patients with DWI and PWI early after acute stroke to determine thresholds that could distinguish between critical and noncritical hypoperfusion. Final infarct size could be predicted by quantitatively analyzing the severity of the PWI lesion.

see page 1205

continued on page 1150

Symptomatic small unruptured aneurysm

Friedman et al. report that unruptured aneurysms less than 1 centimeter in size can present with neurologic symptoms. A comparison of treated with untreated aneurysms suggests that symptomatic small aneurysms may be underrepresented in the retrospective cohort of the International Study of Unruptured Intracranial Aneurysm.

see page 1212

Incidence and etiology of poststroke dementia (PSD)

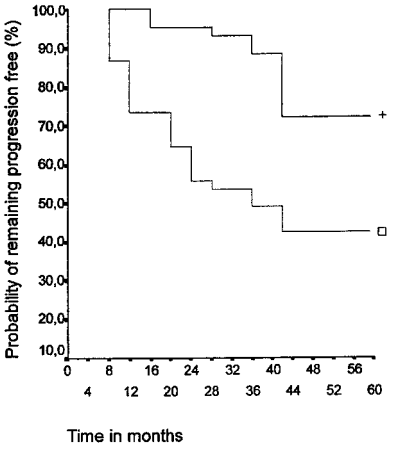
In a prospective study, Hénon et al. found the incidence of PSD to reach 28.5% within 3 years after stroke. About one-third of patients met criteria for AD and two-thirds for vascular dementia. The risk of PSD was increased in older patients and in patients with preexisting cognitive decline, diabetes mellitus, and silent infarcts.

see page 1216

Silent MRI infarcts increase risk of clinical stroke

In a study of over 3,300 community-dwelling elderly patients prospectively followed after undergoing cranial MRI scans, Bernick et al. found that presence of a silent infarct doubled the risk of subsequent clinical stroke. Those with multiple silent infarcts or concurrent atrial fibrillation had an even higher risk of future stroke.

see page 1222



Regular pulse (+) vs pulse for relapses (□)

IV methylprednisolone in relapsing-remitting MS (RRMS)

In a 5-year, randomized, controlled trial of RRMS, Zivadinov et al. compared regular pulses of IV methylprednisolone with IV methylprednisolone only for relapses. Patients on regular pulse IV methylprednisolone therapy had slower progression in black hole volume, brain atrophy, and disability.

see page 1239

Autism in tuberous sclerosis complex

Asano et al. report functional abnormalities on PET scans of glucose and tryptophan metabolism in autistic children with tuberous sclerosis complex (TSC). They suggest that functional abnormalities in temporal neocortex, caudate nuclei, and cerebellar regions contribute to the autistic features of children with TSC.

see page 1269

Fibromyalgia: Association with transformed migraine

Peres et al. found fibromyalgia highly prevalent (36%) and related to depression and insomnia in transformed migraine patients.

see page 1326

Carotid stenosis risk in general surgery

Evans and Wijdicks studied 224 general surgery patients with 50% or greater stenosis by carotid ultrasound. The stroke risk was 3.6% overall and was not increased in those with greater stenosis. Their data do not support routine prophylactic carotid endarterectomy.

see page 1328

18th century chemist Henry Cavendish: Asperger's syndrome?

Oliver Sacks, quoting from George Wilson's biography of Cavendish, notes that "The characteristics that distinguished Cavendish are almost pathognomonic of Asperger's syndrome" (high-functioning autism).

see page 1347

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