Klinefelter syndrome: Decreased brain volume prevented by testosterone

Patwardhan et al. (p. 2218) correlated MRI brain volumes of patients with Klinefelter syndrome (47XXY karyotype) whether or not patients received testosterone. Patients who did not receive testosterone had a decrease in temporal lobe gray matter versus those who did.

◆ The accompanying Editorial by Kates and Singer (p. 2201) places the observation into the context of the developmental neurobiology of gonadal steroid effects. They also consider other evidence that gonadal steroids benefit brain function and the need for further quantitative MRI studies of hormonal effects on brain size and development.

Oxcarbazepine for partial epilepsy

Two large clinical trials studied oxcarbazepine (OXC). Because OXC is metabolized by reductase enzymes, its liability to cause drug interactions is low. Glauser et al. (p. 2237) report a 112-day, placebo-controlled study of OXC as adjunctive treatment in 267 children. Partial seizures were significantly reduced when OXC was added to their current, stable treatment regimen. Side effects were frequent, but OXC was nonetheless adequately tolerated. ◆ Beydoun et al.

(p. 2245) assessed the efficacy of OXC as monotherapy in patients with refractory partial epilepsy by comparing two doses in a randomized trial. The high dose was superior by a number of criteria and 12% of previously refractory patients became seizure-free on high-dose OXC.

Validation of PET in temporal lobe epilepsy (TLE)

Lamusuo et al. (p. 2252) compared MRI, [¹¹C]-flumazenil-PET, and neuropathology in 16 patients with temporal lobe epilepsy (TLE). PET confirmed MRI abnormalities but also detected abnormalities in MRI-normal TLE subjects.

Neuropathology confirmed that hippocampal abnormalities were actually present in these subjects.

Galantamine in AD

Two studies report large, controlled trials of a new reversible anticholinesterase agent that also has effects on nicotine acetylcholine receptors. Raskind et al. (p. 2261) studied 636 patients in a 6-month placebo-controlled trial with a 6-month open extension. Galantamine improved cognition and overall dementia disability at 6 months; the benefit was maintained during the full 12-month study. ◆ Tariot et al. (p. 2269) slowly increased the dose of galantamine in a placebo-controlled study of 978 patients. They found that the agent was better tolerated with slow introduction and that it significantly improved cognition, function and behavioral symptoms.

Distinguishing AD from frontal temporal dementia

Frontal temporal dementia (FTD) shows heterogeneity in its MRI findings: the frontal lobe or the temporal lobe may be more atrophic. Perry and Hodges (p. 2277) contrasted neuropsychologic profiles of patients with temporal versus frontal atrophy in comparison with AD patients and controls. They found that patients with the frontal variant had severe deficits in attention

and executive function; those with the temporal variant had severe deficit in semantic memory. Failure to recognize the separate variants will confound separating AD from FTD.

Estrogen replacement improves motor disability in PD

In a randomized, controlled trial, Tsang et al. (p. 2292) studied Premarin's effect on motor fluctuations in 40 postmenopausal women with PD. There was a significant improvement in "on" time in Premarin-treated patients.

Sleep-disordered breathing in cluster headaches

Chervin et al. (p. 2302) performed polysomnography in 25 patients with cluster headache. Abnormalities were found in 80% of patients including apnea/hypopnea, oxygen desaturation, and hypercapnea.

MS and infectious mononucleosis (IM)

Marrie et al. (p. 2307) studied 225 MS patients and 900 controls to see whether prior IM increased the risk of MS and if respiratory tract infections preceded MS onset. There was a five-fold greater risk of MS if there was a history of IM. Also, respiratory tract infections were associated with MS onset.

Outcome in Guillain-Barre pa- tients with respiratory failure

Fletcher et al. (p. 2311) report long-term prognosis in 60 mechanically ventilated GBS patients. Twenty percent died; only two-thirds regained ambulation. Predictors of poor prognosis included increased age, upper limb paralysis, and duration of mechanical ventilation.

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