

attention-deficit hyperactivity disorder symptoms. Arch Gen Psychiatry September 1997;54:857-864). (Reprints: Christopher Gillberg MD, PhD, Department of Child and Adolescent Psychiatry, University of Goteborg, Annedals Clinics, S 413 45 Goteborg, Sweden).

COMMENT. Long-term treatment of ADHD with amphetamine may result in improved behavior and learning after 15 months trial, and side effects are generally mild. Trials in ADHD with less comorbidity would be expected to show even greater beneficial effects.

A collaborative multimodal treatment study of children with ADHD, the MTA, is described by NIMH collaborators. (Jensen PS et al. Arch Gen Psychiatry Sept 1997;54:865-870). It examines long-term effectiveness of medication vs behavioral treatment vs both in 576 children (age, 7-9 years) with ADHD (96 at each of 6 sites) treated for 14 months and reassessed periodically for 24 months. The first patients were enrolled in 1994 and the last will complete the trial in 1998. Pediatric psychopharmacology is receiving a needed boost from this study initiated by the NIMH, and research findings from short-term trials will be tested in more practical, clinically meaningful settings.

### SOMATOSENSORY FUNCTION IN ADHD

Somatosensory evoked potentials (SEP) and tactile function were tested in 49 ADHD children and 49 controls at the Hebrew University, Jerusalem, Israel. Six sensory integration and praxis tests were used to examine suprathreshold tactile perception. These included finger identification, graphesthesia, localization of tactile stimuli, manual form perception, and kinesthesia. ADHD children performed poorly on these suprathreshold somatosensory tests but within normal limits on a smooth vs rough texture discrimination threshold task. The SEP central components were larger in amplitude in ADHD children compared to controls, which supports the theory of cortical neuronal hyperactivity in ADHD. (Parush S, Sohmer H, Steinberg A, Kaitz M. Somatosensory functioning in children with attention deficit hyperactivity disorder. Dev Med Child Neurol July 1997;39:464-468). (Respond: Marsha Kaitz PhD, Department of Psychology, Hebrew University, 91905, Jerusalem, Israel).

COMMENT. Somatosensory functioning is impaired in ADHD, lending credence to the Ayres sensory integration therapies. Testing for cortical sensory function is included in the pediatric neurology evaluation of children with ADHD.

### MEGALENCEPHALY AND DEVELOPMENTAL DELAY

Neurodevelopmental function, language, academic achievement, visuomotor integration, and motor function were evaluated in 20 nonreferred children, aged 6 to 15 years, with idiopathic megalencephaly (>98th percentile) from a suburban practice, and compared to 19 siblings with normal heads and 16 age-matched controls, at the Olson Huff Center for Child Development, Thoms Rehabilitation Hospital, Asheville, North Carolina. Megalencephaly was associated with impaired performance on upper limb motor proficiency, visuomotor integration, response speed, coordination, and increased mirror movements and other neurologic soft signs. Naming fluency was weak, but receptive vocabulary and academic performance were not affected. (Sandler AD, Knudsen MW, Brown TT, Christian RM Jr. Neurodevelopmental dysfunction among nonreferred children with idiopathic

megalencephaly. [Pediatr August 1997;131:320-324]. (Reprints: Adrian D Sandler MD, Center for Child Development, Thoms Rehabilitation Hospital, PO Box 15025, Asheville, NC 28813).

COMMENT. Idiopathic megalencephaly in school-age children, sometimes considered 'benign.' may be associated with subtle motor impairments and neurodevelopmental dysfunction.

### INFANT CT-DILATED VENTRICLES AND LEARNING DISORDERS

The risk of developing learning disability at school age in extremely low birth weight (ELBW) infants showing dilated lateral ventricles on CT at postconceptual age of 40 weeks was evaluated at Akita School of Medicine, Japan. The mean area of lateral ventricles, measured by computer digitizer, was significantly larger in the learning disability group of 20 children than controls. None had progressive hydrocephalus, and the dilated ventricles were secondary to brain atrophy. (Ishida A, Nakajima W, Arai H et al. Cranial computed tomography scans of premature babies predict their eventual learning disabilities. Pediatr Neuro May 1997;16:319-322). (Respond: Dr Ishida, Department of Pediatrics, Akita University School of Medicine, 1-1-1 Hondo, Akita-shi, Akita 010, Japan).

COMMENT. Measurement of lateral ventricles by cranial CT at corrected term in ELBW newborns is an early predictor of learning disabilities at school age, and provides an opportunity for early educational intervention.

**ADHD in low birth weight children.** Neonatal cranial ultrasound abnormalities suggestive of white matter injury in low-birth-weight children were an increased risk for neuropsychiatric disorders by age 6 years in a study at Columbia University and New York State Psychiatric Institute. (Whitaker AH, Van Rossem R, Feldman JF et al. Psychiatric outcomes in low-birth-weight children at age 6 years: Relation to neonatal cranial ultrasound abnormalities. Arch Gen Psychiatry Sept 1997;54:847-856). Twenty-two percent of the cohort were affected; ADHD was the most common disorder (16%).

### DIET AND INFANT BEHAVIOR

The relation between rate of weight gain and diet-dependent changes in biochemistry, physiology and behavior of 142 preterm infants (mean birthweight 1364 g) fed varied protein and energy intakes was evaluated at the College of Physicians and Surgeons, Columbia University, New York. Rapidly growing infants had increased heart rates, respiratory rates, active sleep time, and decreased spectral edge EEG frequencies compared to slow growers. The changes in autonomic responses related to diet and rapid growth were explained by an hypothesis of shifts in the balance of catecholamine and serotonergic neurotransmitter systems. (de Klerk A, Schulze KF, Kashyap S, Sahni R, Fifer W, Myers M. Diet and infant behavior. Acta Paediatr Suppl 422 July 1997;86:65-68). (Respond: Dr KF Schulze, Department of Pediatrics, College of Physicians and Surgeons, Columbia University, 630 West 168th St, New York, NY 10032).

COMMENT. This study of diet and behavior in LBW infants was stimulated by reports of the influence of infant diets on later adult morbidity. The authors were particularly interested in early diet in relation to adult diseases such as hypertension. The findings might also apply to nervous system development and a possible diet related mechanism of attention deficit and