

Furthermore, these authors distinguished two subtypes of CIDP: 1) with acute or subacute onset, a monophasic course, and complete recovery; and 2) a gradual onset, evolution of symptoms from 3 months to years, residual weakness, and no complete recoveries. Cases with an antecedent URI or tonsillitis recovered completely, whereas cases following MMR immunization had severe residual weakness.

TOXIC DISORDERS

PRENATAL METHYLMERCURY AND COGNITIVE DEFICIT

A cohort of 1022 consecutive singleton births during 1986-87 in the Faroe Islands, born to mothers who had consumed methylmercury-polluted pilot whale meat and having increased mercury concentrations in cord blood and maternal hair, received neurobehavioral evaluations at 7 years of age at Odense University, Denmark. Deficits in language, attention, and memory, and to a lesser extent in visuospatial and motor functions were revealed, even in children born to mothers with hair mercury concentrations below 10 mcg/g (50 nmol/g). A doubling in mercury exposure was associated with a developmental delay of 2 months. (Grandjean P, Weihe P, White RF et al. Cognitive deficit in 7-year-old children with prenatal exposure to methylmercury. Neurotoxicol Teratol Nov/Dec 1997;19:417-428). (Reprints: Dr Phillippe Grandjean, Odense University, Winslowparken 17, 5000 Odense, Denmark).

COMMENT. Neurobehavioral dysfunction in children born in the Faroe Islands can be related to prenatal methylmercury exposure, and has been detected at exposure levels currently considered safe.

The neurologic long-term effects of methylmercury poisoning were described in three children and a neonate in a New Mexico family who had consumed pork containing methylmercury. (Davis LE et al. 1994. Reviewed in Progress in Pediatric Neurology III, 1997;p279). At 22 year follow-up, 2 had died, and 2 had cortical blindness, ataxia, and attentional deficits.

LEARNING AND BEHAVIOR DISORDERS

ASPERGER'S DISORDER AND TOURETTE SYNDROME

Five boys with both Asperger's disorder and Tourette syndrome, exceptional verbal intelligence, and clumsiness presented with peer-related social difficulties and a flapping stereotypy in a report from New York University Medical Center. Highly specialized interests - computers, chess, music - were characteristic. Speech was sing-song or mechanical, with poor pitch modulation, conversation overfocused or tangential, and eye contact poor. Neurologic exam revealed soft signs involving incoordination of tandem gait, finger tapping, and eye-hand clumsiness. WISC IQ showed very superior verbal scores (mean, 140) and lower performance scores (mean, 115). Despite the high IQ, academic performance was poor. Visuosperceptual, motor, and attentional impairments were noted. Tics exacerbated social difficulties. (Nass R, Gutman R. Boys with Asperger's disorder, exceptional verbal intelligence, tics, and clumsiness. Dev Med Child Neurol Oct 1997;39:691-695). (Respond: Dr Ruth Nass, NYU Medical Center, 400 East 34 Street, RR311, New York, NY 10016).

COMMENT. Asperger's disorder should be considered in children of high verbal intelligence who do poorly in school, both academically and socially,

and who exhibit stereotyped movements, speech and language disorders, tics, and motor clumsiness. Asperger's disorder may overlap or occur concurrently with Tourette syndrome, pervasive developmental disorder, and attentional deficit disorders.

DEVELOPMENTAL DYSCALCULIA

An 11-year-old, Hebrew speaking boy of normal intelligence, referred to Alyn Hospital, and Schneider Children's Medical Center, Jerusalem, for evaluation of learning and attentional problems, was found to have a profound dyscalculia based on a proposed lack of "cardinal/ordinal skills acquisition device" (COSAD). Several male family members had dysgraphia, right-left disorientation, and dyslexia. At birth, the child was hypotonic, and motor development was delayed, walking independently at 2 and 1/2 years. Neurologic abnormalities included high-pitched voice, dysgraphia, right-left disorientation, finger agnosia, clumsiness in running and jumping, scoliosis, and fine motor incoordination. At 4 years, he developed grand mal seizures treated with carbamazepine, and at 7 years he received pemoline (Cylert) for ADD without hyperactivity. The pemoline benefited overall functioning. The use of linguistic, visual and verbal memory cues compensated for deficits in ordinal number use, but not for cardinal number skills, which remained limited. He could count small numbers, but could not do simple calculations, a skill requiring an innate experience of quantity, less amenable to language, visual-spatial, or logical mediation. Different theories of number development and mathematical skills are discussed in relation to mechanisms of dyscalculia and its management. (Ta'ir J, Brezner A, Ariel R. Profound developmental dyscalculia: evidence for a cardinal/ordinal skills acquisition device. Brain and Cognition November 1997;35:184-206). (Reprints: Judy Ta'ir, Alyn Hospital, PO Box 9117, Jerusalem 91090, Israel).

COMMENT. A child with ADHD and learning disability involving mathematical skills should be examined neurologically for Gerstmann's syndrome (dyscalculia, dysgraphia, right-left disorientation, and finger agnosia). In adults with stroke or cerebral tumor, GS is usually associated with lesions localized to the angular gyrus and parietal lobe of the dominant hemisphere. In children, partial Gerstmann syndromes may be developmental or acquired and may occur with focal lesions in other areas of the dominant hemisphere or with diffuse involvement of either or both hemispheres. An EEG may help in localizing a lesion in children with ADHD, GS, and seizures, and may prompt the need for an MRI.

Profound developmental dyscalculia may occur in children of normal or even superior IQ. Deficits in specific cognitive areas may involve visual-spatial perception and parietal-occipital dysfunction. In a theoretical hypothesis of development dyscalculia, an innate, highly specific cognitive domain is involved; ordinal number tasks and counting small magnitudes may be successfully completed, whereas larger quantities involving calculations are not possible.

CHILDHOOD ADHD AND ADULT CRIMINALITY

The relationship between attention deficit hyperactivity disorder in childhood and criminality in adolescence and adulthood was examined in 89 hyperactive and 87 normal control subjects studied prospectively at the Division of Child Psychiatry, Oregon Health Sciences University, Portland, OR. Hyperactive subjects had significantly higher juvenile and adult rates of