

developmental defects in fetal brain is of interest in relation to the brain malformations recorded on CT scans of occasional children with dyslexia (Galaburda AM et al. Ann Neurol 1985;18:222).

Hair zinc levels of urban toddlers were lower than rural toddlers, especially in summer and in those with frequent upper respiratory tract infections, in a study from North Rhine-Westphalia, Fed Rep Germany (Lombeck I et al. Eur J Pediatr Feb 1988;147:179). Environmental and seasonal factors and age, sex and infection affect the variability in zinc hair content in addition to dietary factors. Caution in the interpretation of hair analyses is stressed.

## MOVEMENT DISORDERS

### TOURETTE'S SYNDROME

The prevalence of Gilles de la Tourette's syndrome (TS) in school children from Monroe County, New York, was examined in the Depts of Psychiatry, Neurology and Pediatrics, University of Rochester Medical Center, Rochester, NY. Forty-one TS patients were detected with an estimated prevalence of 28.7 per 100,000. Twenty (50%) of the 41 children had obsessive ideas or ritualistic motor behaviors associated with obsessive ideas. These included rituals to make sure the body was symmetrical or balanced, mental arithmetic games, touching of objects to ward off bad luck, or repetitively placing objects. Only 3 had a diagnosable obsessive-compulsive disorder. Eleven children had attention deficit disorder with hyperactivity (ADHD); of 10 who had received methylphenidate, one developed tics after 18 months of therapy and movements almost completely ceased when drug was discontinued. Eleven had insomnia and seven had self-harming behaviors, including lip biting, sticking pins in the skin, and burning fingers on hot objects. Twenty patients had complex vocalizations including coprolalia, echolalia and stuttering. On neurologic examination, 12 showed subtle abnormalities or soft signs including synkinesis, impaired rapid alternating movements, and inability to hop, and one had significant postural and motor defects associated with microcephaly and growth retardation. Thirty-seven were male and four were female. Fifty-six percent had a positive family history of TS or tics. TS was a mild disorder requiring no drug treatment in 23 (56%) patients. Thirteen of those who received haloperidol (0.5-2.5mg daily) were benefited and 5 patients were uncontrolled. (Caine ED et al. Tourette's syndrome in Monroe County school children. Neurology March 1988;88:472-5).

**COMMENT.** Tourette's syndrome is manifested by the onset of recurrent multiple motor tics and involuntary vocal tics in childhood. The incidence of reported cases was low until the 1960s and the condition was generally omitted from the index of textbooks of neurology. Increased public awareness of the disorder and recognition of organic in addition to functional psychiatric causes have led to an increase in apparent prevalence. Formerly, the combination of tics, coprolalia and barking were required for diagnosis whereas recently, patients with simple habit spasms are sometimes included in collected series. The exact etiology is unknown although organic factors are suspected. About 10% have a history of previous head injury or neonatal asphyxia (Erenberg G et al. Cleve Clin Q 1986;53:127). Many have learning problems and behavior disorders for which psychostimulant medication may be indicated. Methylphenidate should be withheld or used with caution at lower dose levels in children with tics or a family history of Tourette's syndrome.