### INFECTIOUS DISORDERS

#### LYME NEUROBORRELIOSIS

The clinical and epidemiological features of 187 consecutive patients with neuroborreliosis recognized in Denmark over a 6-year period, 1985-1990, are reported from the Department of Infection-Immunology, Statens Seruminstitut, Copenhagen, Denmark. The most common manifestation was a painful lymphocytic meningoradiculitis (Bannwarth's syndrome), and CNS involvement in early cases was rare. Neuroborreliosis in children showed a different course compared to adults. Headache was considerably more frequent (70%) compared to adults (35%) whereas radicular pain was significantly less common and less severe in children. Clinical signs of meningitis were reported in 38% of children and in only 3% of adults. Facial palsy in 26 of 40 childhood cases was bilateral in only 3, and was unassociated with pain, fever or neck stiffness. The diagnosis is based on inflammatory CSF changes and B. burgdorferi specific intrathecal antibody production (Hansen K, Lebech AM. The clinical and epidemiological profile of lyme neuroborreliosis in Denmark 1985-1990. Brain April 1992; 115:399-423). (Correspondence: Dr. Klaus Hansen, Borrelia Laboratory, Department of Infection-Immunology, Statens Seruminstitut, Artillerivej 5, DK-2300 Copenhagen S, Denmark.)

COMMENT. Neuroborreliosis in children is often less dramatic than in adults and may be insidious with fluctuating headache, loss of appetite, weight loss, slight meningeal signs but rare focal neurologic signs. Similar findings to the experience in Denmark are reported from the United States. (Belman AL. Neurologic complications of Lyme disease in children. Experience in an endemic area and review of the literature. Int Pediatr 1992: 7:136-143.)

# LEARNING AND BEHAVIOR DISORDERS

#### FOOD-INDUCED HYPERKINESIS

The results of a controlled trial of hyposensitization with intradermal EPD (beta-glucuronidase and food antigens) in 40 children with the hyperkinetic syndrome are reported from the Universitatskinderklinik. Lindwurmstrasse, Munchen, Germany and The Allergy Unit, London, UK. The study was in 3 phases: the first consisted of the oligoantigenic diet; children who responded to the diet entered the reintroduction of foods, phase II; and those with food-induced hyperkinetic syndrome entered phase III, a double-blind, placebo-controlled trial of EPD, 3 intradermal doses at 2monthly intervals. Of 20 patients who received the hyposensitization active treatment, 16 became tolerant toward provoking foods, compared with 4 of 20 who received placebo (p<0.001). The authors conclude that EPD permits children with food-induced hyperkinetic syndrome to eat foods that had previously been identified as responsible for their symptoms (especially chocolate, colorings, cow milk, egg, citrus, wheat, nuts and cheese). Food allergy is considered a possible mechanism of the hyperkinetic syndrome. (Egger J et al. Controlled trial of hyposensitization in children with foodinduced hyperkinetic syndrome. <u>Lancet</u> May 9, 1992; <u>339</u>:1150-1153.) (Correspondence: Dr. J. Egger, Universitatskinderklinik, Lindwurmstrasse 4, 8000 Munchen 2, Germany.)

COMMENT: Dr. Egger also reports a beneficial effect of the hypoallergenic diet in 12 children who suffered from enuresis in association with migraine and the hyperkinetic syndrome (Egger J et al. Clin Pediatr May 1992; 31:302-307). In an editorial Fitzwater D and Macknin ML (Clin Pediatr 1992; 31:308-310) recommend additional studies before dietary therapy can be introduced as a standard therapy for enuresis. Given the hazards of pharmacological therapy and the practical disadvantages of the alarm system, Dr. Egger's dietary and hyposensitization methods deserve attention. For reviews of previous articles on the hypoallergenic diet, see Progress in Pediatric Neurology, Ed Millichap JG 1991, p. 88-89.

# PRENATAL HEAVY METAL EXPOSURE AND COGNITION

The effects of prenatal exposure to heavy metals on childhood cognitive skills and health status are reported from the Robert Wood Johnson Medical School, New Brunswick, NJ. Cadmium, chromium, cobalt, lead, mercury, nickel and silver were determined in amniotic fluid taken from 92 pregnant women at 16 - 18 weeks gestation. A prenatal toxic risk score was based on the presence of a detectable level for the various metals. A correlation analysis indicated a negative relation between the toxic risk score and cognitive performance and a significant positive correlation between the toxic risk score and both the total number of atopic illnesses and infections assessed at 3 years of age. These findings indicate that health status as well as cognitive ability may show deficits as a consequence of prenatal heavy metal exposure. (Lewis M et al. Prenatal exposure to heavy metals: effect on childhood cognitive skills and health status. Pediatrics June 1992; 89:1010-1015.) (Reprints: Dr. Michael Lewis, Institute for the Study of Child Development, Dept. of Pediatrics, UMDNJ-Robert Wood Johnson Medical School, RWJ Professional Bldg. New Brunswick, NJ 08903-0019.)

COMMENT. Lead intoxication in infants is common and is of different origin from that in toddlers (Shannon MW, Graef JW. Lead intoxication in infantsy. Pediatrics Jan 1992; 89:87-90). Formula preparation with lead contaminated water accounted for 9 of 50 infantile cases whereas paint chip ingestion was the most common cause among 47 children (86%) aged 18 through 30 months. These data support recent recommendations to initiate lead screening in children at 6 months of age. A maintained average blood level of 25 ug/dL or more during the second and third year of life was found to be detrimental to the child's attained stature at 33 months of age in a study from the University of Cincinnati (Shukla R et al. Lead exposure and growth in the early preschool child: A follow-up report from the Cincinnati lead study. Pediatrics 1991; 88:886-892).