Behavioral disorders in 15% and intracranial infections in 4% of the total were most frequent in the HIV positive group. Neurologic abnormalities, involving cranial nerves (11%), deep tendon reflexes (17%), coordination (25%), muscle strength (23%), and tone (31%), were more common in children of 12 years and older. They were similar in frequency in HIV-seronegative and seropositive subjects, except for deep tendon reflexes and muscle tone and bulk, which were more frequently abnormal in seropositive individuals. Substantial neurological dysfunction could be attributed to hemophilia, but HIV-1 contributes to the neurologic morbidity of hemophiliacs.(Bale JF Jr et al. Neurologic history and examination results and their relationship to human immunodeficiency virus type 1 serostatus in hemophilic subjects: Results from the hemophilia growth and development study. Pediatrics April 1993; 91: 736-741). (Reprints: James F Bale Jr MD, Division of Pediatric Neurology, Dept of Pediatrics, University of Iowa Hospitals and Clinica, Iowa City, IA 52242).

> COMMENT. The effect of HIV-1 or its treatment on muscle and peripheral nerve was reflected by non-hemophilia-related reductions in muscle tone and bulk, identified only in HIV-1 seropositive subjects. HIV-1 was also responsible for the majority of behavioral disorders and intracranial infections observed in hemophilic children.
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> Of multiple MRI abnormalities, including arachnoid cysts, focal lesions, and multifocal white-matter lesions, found in 80 of 310 hemophilic boys, only diffuse cerebral atrophy was associated with HIV infection, and only in subjects with compromised immunologic function. (Mitchell WG et al. Pediatrics April 1993; 91: 742-746). Cerebral atrophy is the most consistent neuroradiological abnormality among children with HIV infection, reported in 85%.(Mintz M, Epstein LG. Neurologic manifestations of pediatric acquired immunodeficiency syndrome: Clinical features and therapeutic approaches. Seminars in Neurology March 1992; 12: 51-56).

PSYCHOLOGICAL SYMPTOMS OF SYDENHAM'S CHOREA

The psychological symptoms of 11 children with Sydenham's chorea (8 girls and 3 boys, mean age 8.4 years) were evaluated at the National Institute of Mental Health, Bethesda, MD. Subjects had a recent onset of chorea and rheumatic fever. Seven had rheumatic carditis and 3 had arthritis. All were receiving penicillin, and 8 had been treated with haloperidol, without lasting benefit. All had an elevated antistreptolysin O (ASO) titer, greater than 480 Todd units, and 10 had positive antineuronal antibody titers. Psychological symptoms included nightmares, decreased attention, hyperactivity, distractibility, emotional lability, and an acute onset of obsessive-compulsive disorder. The OCD started shortly before the onset of involuntary movements,

peaked with the chorea, and disappeared before movements ceased. The mean total duration of chorea symtoms was 7 months. (Swedo SE et al. Sydenham's chorea: Physical and psychological symptoms of St Vitus dance. Pediatrics April 1993; 91: 706-713). (Reprints: Susan E Swedo MD, Child Psychiatry Branch, National Institute of Mental Health, Bldg 10, Room 6N240, 9000 Rockville Pike, Bethesda, MD 20892).

COMMENT. Of 9 children exhibiting obsessive-compulsive symtoms, 4 met DSM-III-R diagnostic criteria for OCD. The authors hypothesize that certain acute-onset cases of OCD acquired during childhood may represent an autoimmune cerebral disorder similar to Sydenham's chorea, and affecting the basal ganglia. A trial of intravenous immunoglobulin in children with Sydenham's chorea is in progress at the NIH.

LYME DISEASE: PROGNOSIS WITH EARLY TREATMENT

The long-term outcome of 63 children with erythema migrans, treated early with antibiotics at the Wildwood Pediatrics Clinic, Essex, Connecticut, was determined by telephone interview 1 to 6 years after the initial episode of Lyme disease. Penicillin V (60% of patients), amoxicillin (25%), tetracycline (10%), or doxycycline (5%), had been given orally for 10 to 30 days. None of the patients had carditis, arthritis, or neurologic complications attributable to Lyme disease. A recurrence of erythema migrans was reported in 7 (11%). (Salazar JC et al. Long-term outcome of Lyme disease in children given early treatment. J Pediatr April 1993; 122: 591-593). (Reprints: Michael A Gerber MD, Department of Pediatrics, University of Connecticut Health Center, 263 Farmington Ave, Farmington, CT 06030).

COMMENT. Treatment of Lyme disease at an early stage appears to protect from serious neurologic and other sequelae.

A prospective study of the clinical and epidemiological features of 187 consecutive patients with neuroborreliosis recognized in Denmark over a 6-year period showed that 61% had Bannwarth's syndrome with paresis, a painful lymphocytic meningoradiculitis, during the second stage of the disease. CNS involvement in the early stages was rare; 4% had myelitis and 1 patient had acute encephalitis. The final morbidity after a 3 year median follow-up was low; disabling sequelae were reported in 9 (5%) patients. (Hansen K, Lebech A-M. Brain 1992; 115: 399-423). Measurement of intrathecal anti-*Borrelia burgdorferi* antibody is a reliable indicator of CNS infection. (Halperin JJ et al. Neurology 1991; 41: 1571).