INFECTIOUS DISORDERS

CSF-PCR IN DIAGNOSIS OF LYME MENINGITIS

The sensitivity, specificity and predictive value of a Lyme CSF-PCR assay were evaluated in children from a Lyme-endemic region admitted to the Alfred I duPont Hospital for Children, Wilmington, DE, for suspected Lyme meningitis. Twenty met CDC criteria for Lyme meningitis, and 88 were diagnosed with aseptic meningitis, based on negative Lyme serology and absence of erythema migrans. Of the 20 with Lyme meningitis, 12 had erythema migrans and 6 had both enzyme-linked immunosorbent assay and Western blot reactivity. Lyme CSF-PCR was positive in 1 patient (5%) with Lyme meningitis and in 1 (1%) classified as aseptic meningitis. Lyme CSF-PCR had a sensitivity of 5% and a specificity of 99%. The Lyme meningitis patient with a positive Lyme CSF-PCR had the highest CSF white blood cell count (762 mm3) and CSF protein value (138 mg/dL) when compared with other Lyme meningitis patients. The patient classified as aseptic meningitis but having a positive Lyme CSF-PCR had presented after a 2-day history with facial palsy, a history of a tick bite some 3 weeks earlier, and a rash 1 week before presentation. Given this history, and despite the negative Lyme serology and absent erythema migrans on admission, the patient probably had Lyme meningitis, and a 29-day course of parenteral antibiotics had been initiated prior to knowledge of the positive Lyme CSF-PCR result. The commercially available Lyme CSF-PCR assay used in this study was not generally helpful in identifying Lyme meningitis. (Avery RA, Frank G, Eppes SC. Diagnostic utility of Borrelia burgdorferi cerebrospinal fluid polymerase chain reaction in children with lyme meningitis. Pediatr Infect Dis J August 2005;24:705-708). (Reprints: Stephen C Eppes MD, Division of Infectious Diseases, AI duPont Hospital for Children, PO Box 269, Wilmington, DE 19899).

COMMENT. A Lyme CSF-PCR assay used to identify patients with suspect Lyme meningitis, admitted to hospital in a Lyme-endemic region, had a low sensitivity and was not of practical diagnostic value. The diagnosis of Lyme meningitis and its differentiation from aseptic meningitis must rely on clinical and CSF findings combined with serum antibody testing. Apart from the cost and low reliability, a Lyme CSF-PCR assay may lead to delay in diagnosis, and prolong unnecessary antibiotic therapy while waiting for a result. The authors comment that a CSF-PCR assay may be appropriate in selected patients: eg those with aseptic meningitis in an endemic area, having suggestive clinical findings, a negative Lyme serum antibody test, negative viral CSF, and an elevated CSF protein (>100 mg/dL).

AUTISTIC SPECTRUM DISORDER

TEMPORAL LOBE ABNORMALITIES RELATED TO AUTISM SEVERITY

The relation between cerebral blood flow (rCBF) and the clinical severity of symptoms in 45 autistic children, mean age 7.9 years, was determined at centres in Paris, France. CBF was measured with PET after IV injection of $H_2^{15}O$. A global index of autism severity (Autism Diagnostic Interview-Revised [ADI-R]) and indices of stereotypes and