INFECTIOUS DISORDERS

WEST NILE VIRUS MIMICKING HERPES ENCEPHALITIS

A 3-year-old male child with suspected herpes simplex virus encephalitis who asubsequently tested positive for West Nile virus is reported from Schneider Children's Medical Center, Petah Tikva, Israel. He was admitted with fever, headache and a generalized tonic-clonic seizure lasting 2 minutes. This was followed by a left sided clonic seizure with secondary generalization. Examination showed nuchal rigidity, generalized hyperreflexia, cervical and axillary lymphadenopathy, and a faint maculopapular rash on the face, trunk, and extremities. The CSF had 50 cells (90% mononuclear), no erythrocytes, glucose 67 mg%, and protein 30 mg%. Viral culture and PCR tests for herpes simplex virus were ordered. CT scan of the brain was normal. EEG on the 2nd day showed 7/sec posterior activity awake, with 4-5/sec slowing on the right. He was treated for suspected herpes simplex encephalitis with acyclovir and dexamethasone. On the 4th day the temperature was normal but the neurologic exam revealed truncal ataxia, and increased somnolence. Repeat CT showed small lateral ventricles with obliterated sulci, indicative of brain edema. His state of consciousness fluctuated but gradually improved. He was fully recovered and discharged on day 10 of hospitalization. PCR results for herpes simplex type 1 and 2 were negative. An enzyme-linked immunosorbent assay for antibodies for West Nile (WN) virus, ordered because of a WN fever epidemic in the area, was positive (immunoglobulin M >1:1200). (Rimon A, Straussberg R, Amir J. West Nile encephalitis mimicking herpes encephalitis. **Pediatr Neurol** Aug 2006;35:62-64). (Respond: Dr Amir, Department of Pediatrics C, Schneider Children's Medical Center of Israel, Petah Tikva, 49202, Israel).

COMMENT. CNS involvement in West Nile fever occurs most frequently in the elderly, and reports in children are uncommon. The authors recommend inclusion of West Nile virus in the differential diagnosis of encephalitis in children, especially during outbreaks in endemic areas. West Nile fever is benign and self-limited in most pediatric patients and treatment is mainly supportive. In contrast, herpes simplex encephalitis has a relatively poor prognosis and requires early diagnosis and antiviral therapy.

Case of chronic herpes simplex virus (HSV) encephalitis in a 6-year-old female is reported from Nijmegen, The Netherlands. The child presented with complex partial seizures with secondary generalization, followed by a postictal right-sided Todd's hemiparesis, ataxia, and aphasia. An aphasic episode lasting ½ hr had occurred 18 months earlier, and cognitive decline was also apparent before the onset of seizures. Diagnosis was based on detection of HSV DNA by PCR, increase of anti-HSV immunoglobulin G in CSF, HSV-specific oligoclonal immunoglobulin G bands in CSF, and calcifications in temporal regions on CT scan. PCR of CSF has replaced brain biopsy as diagnostic method of choice for HSV encephalitis. Prolonged antiviral therapy was partially beneficial. (Leen WG et al. **Pediatr Neurol** July 2006;35:57-61).

Diagnosis of viral encephalitides is reviewed from Children's Hospital of Philadelphia by Romero JR, Newland JG. (**Pediatr Infect Dis J** August 2006;25:739-740). In HSV encephalitis, sensitivity and specificity of PCR for HSV DNA in the CSF are 94 and 98%.