

INFECTIOUS DISORDERS

CT ABNORMALITIES WITH HIV ENCEPHALOPATHY

Qualitative analysis of 100 consecutive computed tomographic (CT) studies of the brain in children with symptomatic but untreated acquired immunodeficiency syndrome is reported from the National Institutes of Health, Bethesda, MD, and the Children's National Medical Center, Washington, DC. Evidence of CNS damage from HIV, as expressed by abnormalities on CT, was seen in 86% of patients. Ventricular enlargement was the most frequent abnormality, found in 65 (78%), followed by cortical atrophy in 57 (68%). Less common abnormalities were leukoaraiosis (26%), cerebral calcification (19%), and cerebellar atrophy (12%). Children with encephalopathy (65%) were younger and had more CT abnormalities than nonencephalopathic children. (DeCarli C et al. The prevalence of computed tomographic abnormalities of the cerebrum in 100 consecutive children symptomatic with the human immune deficiency virus. Ann Neurol Aug 1993;34:198-205). (Respond: P Brouwers PhD, Bldg 10, Rm 13N240, National Inst of Health, 9000 Rockville Pike, Bethesda, MD 20892).

COMMENT. Routine use of CT in children with HIV infection may uncover evidence of presymptomatic brain disease. The authors stress the need for early assessment of possible brain involvement and modification of therapy regimens to prevent or ameliorate the onset of encephalopathy. Pathogenetic mechanisms of HIV-type 1 infection of the CNS are discussed by Epstein LG and Gendelman HE (Ann Neurol 1993;33:429). Infected macrophages initiate neurotoxicity, which is then amplified through cell-to-cell interactions with astrocytes.

Low serum vitamin B₁₂ levels, often noted in patients with HIV-1 infection, showed no significant relation to neurological abnormalities in 153 HIV-1-positive adults studied at the AIDS Neurological Center, Univ of North Carolina at Chapel Hill, NC. (Robertson KR et al. Arch Neurol 1993;50:807).

In a prospective evaluation of 181 children at risk for perinatal HIV infection, hypotonia at 6 months was related to symptomatic infection whereas hypertonia was not associated with infection at this age. In older HIV-infected children, hypertonia reflects involvement of the brain. Antiretroviral therapy altered progression of HIV encephalopathy (Chiriboga CA, Hauser WA et al. Ann Neurol Sept 1993;34:500, abstract).

CNS COMPLICATIONS OF ASEPTIC MENINGITIS IN INFANTS

The incidence and outcome of neurological complications occurring during the acute stage of aseptic meningitis in 277 infants under 2 years of age are reported from Johns Hopkins University, Baltimore, and Dartmouth