

## INFECTIOUS DISORDERS

### POST-VARICELLA ANGIOPATHY

A 4-year-old male child who presented with right middle cerebral artery (MCA) infarction 2 months after varicella is reported from the University of British Columbia, Children's Hospital, Vancouver, Canada. He awoke from sleep complaining of nausea, vomited, and within 30 minutes developed left facial, arm, and leg weakness that partially resolved over 4 hours. On admission, he had a left hemiparesis and a right gaze preference. CT demonstrated the right MCA infarction. Cerebral angiography with catheterization of all major arteries 48 hours after admission showed an isolated 89% stenosis of the proximal right MCA. Within 24 hours he deteriorated acutely, with coma and a left focal seizure. Attempts to control raised intracranial pressure with mannitol and hyperventilation were unsuccessful. At surgery to relieve transtentorial herniation, infarcted brain tissue was evacuated. Pathologic studies showed small vessel vasculitis, lymphocytic infiltration, and white matter demyelination. No viral inclusions were identified, and immunohistochemical staining was negative for herpes simplex virus. Polymerase chain reaction on brain tissue was negative for varicella. After surgery he developed decorticate posturing and a right fixed dilated pupil. At 2 year follow-up he was severely incapacitated with spastic quadriplegia, bulbar dysfunction, and cortical visual impairment. (Hayman M, Henderson G, Poskitt KJ, Connolly MB. Postvaricella angiopathy: report of a case with pathological correlation. *Pediatr Neurol* May 2001;24:387-389). (Respond: Mary B Connolly MB, Division of Neurology, British Columbia's Children's Hospital, 4480 Oak Street, Vancouver, BC, V6H 3V4, Canada).

COMMENT. The present case of middle cerebral artery infarction was considered to be a late complication of the mild varicella infection occurring 2 months previously. Angiography that was followed by an acute deterioration of the stroke, with massive brain swelling and coma, failed to reveal stenosis and beading, signs of vasculitis that were evident in small vessels on pathological examination. The value of cerebral angiography in cases of acute stroke with suspected vasculitis is questionable. Several case reports are cited that demonstrate an association between "idiopathic" arterial strokes in childhood and varicella infection.

## ATTENTION DEFICIT AND COGNITIVE DISORDERS

### SENSORY MODULATION DYSFUNCTION IN ADHD

Sensory processing and reactivity were studied in 26 children with attention deficit hyperactivity disorder (ADHD) (mean age 8.3 years, 18 males, 8 females) and 30 normal controls at the University of Colorado Health Sciences Center, Denver, CO. Responses to repeated sensory stimuli (olfactory, visual, auditory, tactile, and vestibular) were measured by electrodermal (EDR) conductance. Parental observations of sensory, emotional, and attentional disorders were recorded by the Short Sensory Profile (SSP) test, the Leiter International Performance Scale-Revised, Parent Rating subscales, and a Child Behavior Checklist (CBCL) of Achenbach. Children with ADHD showed abnormalities in sensory modulations by both the laboratory EDR measures and parent reports. Variability in responses was also greater among ADHD subjects compared to controls. Levels of sensory modulation dysfunction (SMD), especially