

are at the same risk for occult bacteremia as patients with fever alone, and should receive the same attention with regard to blood cultures. My colleague, Dr. Subhash Chaudhary, Head of the Division of Pediatric Infectious Disease at SIU School of Medicine, commented on the indications for blood culture in young children with fever but with no recognized focus of infection: "a child who looks sick and/or has a WBC of 20,000 or more should receive a blood culture and initial treatment with an antibiotic effective against pneumococcus and H influenza type b pending the isolation of an organism."

NONTRAUMATIC LUMBAR PUNCTURE

A technique and formula for avoiding the traumatic spinal tap is reported from the Medical College of Wisconsin, Milwaukee, WI. To increase the accuracy and to minimize the frequency of traumatic puncture, the authors conducted a 12-month prospective analysis of 158 children of various ages in whom this diagnostic procedure was performed during the evaluation of an acute illness. The right lateral decubitus position was used and the needle was inserted perpendicularly in the L-3 to L-4 vertebral interspace. After CSF was collected, the needle was marked at the skin line and the length inserted was measured. The patient's age, weight, and height were used to calculate the body-surface area in square meters. The body-surface area showed the highest correlation with the depth of lumbar puncture. Linear regression for surface area provided a simple formula to estimate the depth of puncture to within 5 mm in young children of all ages:

$$\text{Depth} = 0.77 \text{ cm} + 2.56 (\text{m}^2)$$

(Bonadio WA et al. Estimating lumbar-puncture depth in children. N Engl J Med Oct 6 1988;319:952-953).

COMMENT. Insertion of the needle too deeply with puncture of venous plexuses in the anterior wall of the vertebral wall is the most common error. The avoidance of traumatic lumbar puncture by the use of this simple calculation and formula should facilitate the diagnosis of meningitis and reduce the risk of iatrogenic meningitis resulting from blood contamination of a previously sterile CSF in the patient with bacteremia. The authors are to be congratulated on their attempt to introduce some mathematical accuracy into a commonly "hit or miss" procedure.

INVOLUNTARY MOVEMENTS

SYDENHAM'S CHOREA THERAPY

Five patients with chorea successfully treated with carbamazepine at plasma levels of 6.5 - 8.8 mcg/ml are reported from the Dept of Pediatrics, Child Neurology and EEG Service, Hospital Infantil Vall d'Hebron, Autonomous University,

Barcelona, Spain. The cause of the chorea was streptococcal infection in 2, post-head injury (1), and unknown in 2. Therapy was continued for 3 to 36 months; it was discontinued in 1 because of an allergic cutaneous rash. (Roig M et al. Carbamazepine: An alternative drug for the treatment of nonhereditary chorea. Pediatrics Sept 1988;82 (pt 2): 492-495).

COMMENT. Prednisone has also been advocated in the treatment of Sydenham's chorea. Kelts and Harrison, reporting at the recent 17th annual meeting Child Neurology Society in Halifax, found prednisone beneficial in 9 cases; an initial average dose of 1.8 mg/kg/day begun within 2 weeks of onset of chorea was tapered over 2 to 6 months.

Despite the self-limiting nature of the involuntary movements, they are frequently incapacitating and warrant treatment. If low to moderate doses of phenobarbital are ineffective, a trial of carbamazepine appears to be worthwhile, and prednisone in resistant cases. Paradoxically, choreoathetosis or dystonia may occur as a side-effect of carbamazepine treatment in epileptic patients.

CEREBRAL TRAUMA

SEVERE HEAD INJURIES

The clinical predictors of severe head trauma in 55 children, 1 to 15 years of age, were compared with CT scan findings at the Dept of Pediatrics, Medical College of Wisconsin and Children's Hospital of Wisconsin, Milwaukee, WI. Severity of head trauma was determined according to the presence or absence of clinical variables, including altered mental states, duration of loss of consciousness or 5 min, vomiting, headache, focal neurologic deficit, seizure, and soft-tissue injury. Injury was considered severe if one or more of the following variables were present: altered mental status, increased intracranial pressure, and seizure or focal neurologic deficit. Thirty-seven (84%) of 44 patients with severe head trauma had a positive CT scan. Six (13%) with a Glasgow Coma Scale (GCS) score of 12 or greater had abnormal CT scans. All patients with mild or moderate head trauma had normal CT scans. Historical information and clinical examination were the most accurate predictors for abnormal CT scans regardless of GCS scores. (Hennes H et al. Clinical predictors of severe head trauma in children. AJDC Oct 1988;142:1045-1047).

COMMENT. The GCS may have limited application in the evaluation of acute head trauma in the pediatric population. A classification based on clinical findings more accurately identifies the severity of head trauma and the need for CT scans.