the right leg and trunk. The dystonia progressively involved all extremities over the next four years. At the age of 7 years CT revealed bilateral putaminal hypodensities. Mitochondrial encephalomyopathy was suspected because of persistent lactic acidemia and myopathy. Studies of oxidative metabolism on skeletal muscle mitochondria revealed partial cytochrome b deficiency indicating a defect in cytochrome b-C1 complex (Nigro MA et al. Partial cytochrome b deficiency in generalized dystonia. Pediatr Neurol Nov/Dec 1990; 6:407-410).

COMMENT: Children with Leigh encephalopathy may develop dystonia and putaminal degeneration. H magnetic resonance spectroscopy was used to demonstrate regional variation in brain lactate in an 11 month old infant with Leigh syndrome at the University of Pennsylvania, Philadelphia. (Detre JA et al. Regional variation in brain lactate in Leigh syndrome by localized H magnetic resonance spectroscopy. Ann of Neurol Feb 1991; 29:218-221). Elevations in brain lactate were observed throughout the brain, but were most pronounced in the basal ganglia and brain stem regions with an abnormal MRI appearance. The increase in lactate was consistent with a deficiency in oxidative substrate utilization. The measurement of brain lactate is significant in patients where blood lactate levels may not always be elevated.

Symptomatic dystonias secondary to birth asphyxia, birth trauma, Wilson's disease, other degenerative disorders, encephalitis, neuroleptic drugs and mitochondrial disorders are distinguished from idiopathic or primary torsion dystonias. A genetic study of idiopathic focal dystonias has shown that 25% of index patients had relatives with dystonia. The results of segregation analysis suggested an autosomal dominant gene or genes with reduced penetrance as a common cause for focal dystonia and a single autosomal dominant gene mutation responsible for inherited dystonia in the majority of patients, irrespective of distribution or severity. Severity is largely determined by age of onset, with generalized idiopathic dystonia developing before the age of 20 and focal dystonias developing in adult life. (Waddy HM et al. Ann Neurol March 1991; 29:320-324).

LEARNING DISORDERS

STIMULANT MEDICATION FOR ADHD: THE CHILD'S PERSPECTIVE

The knowledge and attitudes of children receiving stimulant medication for attention deficit hyperactivity disorder were investigated at the Division of Ambulatory Pediatrics, Children's Hospital, Boston, MA. Of 45 respondents and parents who completed separate questionnaires concerning how they felt about receiving stimulant medication, 89% of the children felt that the medication was helpful

and 78% either approved or were indifferent to its use. Improved concentration and improved ability to sit still in the classroom were the most frequently reported benefits. Difficulty getting to sleep and decreased appetite were the most common side effects, and at least one negative aspect of therapy was reported in 82.2% of children. Only five children (11%) would stop taking stimulant medication if they could; these were more likely to perceive medication as unhelpful if they were receiving standard methylphenidate rather than a long-acting preparation. The authors conclude that children's perspectives on medication should be elicited directly and a sustained release medication may be more acceptable to children with ADHD. (Bowen J et al. Stimulant medication and attention deficit-hyperactivity disorder. The child's perspective. AJDC March 1991; 145:291-295).

COMMENT. The need to take stimulant medication while at school may be an important factor in the child's attitude, and compliance for prescribed therapies can be improved by decreasing the complexity or inconvenience of the therapy. Previous studies have shown that standard methylphenidate is superior to sustained release preparations on measures of disruptive behavior and cognitive performance. In contrast to advertising material, the effects of sustained release and standard methylphenidate were not equivalent. Pemoline or slow release dextroamphetamine were recommended in preference to sustained release methylphenidate, if a single daily dose sustained effect is required. (Pelham WE Jr et al. Pediatrics 1987; 80:491; Ped Neur Briefs Oct 1987).

SEIZURE DISORDERS

REFLEX EPILEPSY INDUCED BY "SOROBAN", A JAPANESE CALCULATOR

Three patients with reflex epilepsy and myoclonic jerks of the right arm and fingers precipitated by calculation using a Soroban are reported from the Department of Neuropsychiatry, Osaka University Medical School, Fukushima-ku, Osaka, Japan. The Soroban (abacus) is a Japanese traditional calculator requiring complex finger movements. Calculations are made by moving the counter beads with the fingers. The quicker the fingers move the sooner the calculation is finished. A simultaneous mental task requiring a high degree of concentration and complicated and delicate finger movements was necessary to induce the epileptic discharges consisting of a spike wave complex with left central prevalence. The reflex epilepsy in these patients resembled that induced by writing. Valproate was effective in the control of seizures and epileptic discharges. (Yamamoto J et al. Reflex epilepsy induced by calculation using a "Soroban," a Japanese traditional calculator. Epilepsia Jan/Feb 1991; 32:39-43).

COMMENT. Both mental activity under high psychological tension and complicated and delicate movements of the fingers were necessary to induce epileptic discharges and/or a clinical seizure in these patients; stimulation without these two factors