

COMMENT. Priapism has been reported with sickle-cell hemoglobinopathy in children, but not with stimulant drugs. In the present case, the problem was not initially disclosed because of embarrassment, and further undiagnosed cases are possibly occurring.

## TRAUMATIC DISORDERS

### **DIFFUSE AXONAL INJURY AFTER TRAUMATIC BRAIN INJURY**

Forty children and adolescents with traumatic brain injury and suspected diffuse axonal injury were studied for hemorrhagic lesions, using a high-resolution magnetic resonance imaging susceptibility-weighted technique, at Loma Linda University Medical Center, CA. The extent of parenchymal hemorrhage was correlated with initial Glasgow Coma Scale scores (GCSS) and outcomes at 6 to 12 months after injury. Lower GCSS ( $<8$ ,  $n=30$ ) or prolonged coma ( $>4$  days,  $n=20$ ) was associated with a greater average number ( $p=0.007$ ) and volume ( $p=0.008$ ) of hemorrhagic lesions. Normal outcome or mild disability ( $n=30$ ) was correlated with fewer hemorrhagic lesions ( $p=0.003$ ) and lower volume ( $p=0.003$ ) than moderate or severe disability or vegetative state. Regional injuries also showed a significant correlation with clinical variables. (Tong KA, Ashwal S, Holshouser BA, et al. Diffuse axonal injury in children: clinical correlation with hemorrhagic lesions. *Ann Neurol* July 2004;56:36-50). (Respond: Dr Tong, Department of Radiology, Loma Linda University Medical Center, 11234 Anderson St, Loma Linda, CA 92354).

COMMENT. Susceptibility-weighted imaging (SWI) shows 6 times more hemorrhagic lesions and 2-fold greater hemorrhage volume than conventional gradient-recall echo (GRE) imaging (Tong et al, 2003). Diffuse axonal injury (DAI) is reported in 40% of children with traumatic brain injury (TBI) (Mittl et al, 1994), motor vehicle accidents being the major cause. MRI has demonstrated the greatest involvement in subcortical white matter. The greater the number of DAI lesions, the poorer the prognosis. SWI provides more accurate assessment of TBI and its long-term outcome.

**Risk factors for intracranial injury in minor head trauma.** A meta-analysis of the literature regarding minor head trauma shows that predictors for intracranial hemorrhage (ICH) in children with minor head injury are: 1) a reduced level of consciousness, 2) focal neurologic signs, 3) skull fracture, and 4) loss of consciousness. Headache and vomiting do not increase risk of ICH. (Dunning J, Batchelor J, Stratford-Smith P, et al. A meta-analysis of variables that predict significant intracranial injury in minor head trauma. *Arch Dis Child* 2004;89:653-659).

**Retinal hemorrhages (RH) and head injury.** RH occur more often in abusive head injury compared to accidental injury and are more frequently bilateral. Abusive head injury is more likely to present with abnormal mental status and seizures, whereas children with accidental injury are more likely to show scalp hematomas. (Bechtel K, Stoessel K, Leventhal JM, et al. Characteristics that distinguish accidental from abusive injury in hospitalized young children with head trauma. *Pediatrics* July 2004;114:165-168).