

HEAD TRAUMA

LONG-TERM ATTENTION PROBLEMS AFTER BRAIN TRAUMA

Parent ratings of attention problems were obtained at long-term follow-up (average 4 years) after traumatic brain injury (TBI) and compared with ratings of premorbid attention problems shortly after injury, in a study of 132 children (ages 6 – 12 years) at the Ohio State University and Columbus Children's Research Institute and other centers. At follow-up, 46% of 41 children with severe TBI showed significant attention problems on the Child Behavior Checklist, as compared to 26% of 50 who had suffered an orthopedic injury (OI). Symptoms consistent with a diagnosis of ADHD (combined subtype) were present in 20% of the severe TBI group and showed clinically significant attention problems compared to 4% in the OI group. Measures of executive functions were related to behavioral attention problems. The greater the premorbid difficulties, the more pronounced the differences in the long-term behavioral symptoms (but not cognitive outcomes) in TBI and OI groups. (Yeates KO, Armstrong K, Janusz J et al. Long-term attention problems in children with traumatic brain injury. **J Am Acad Child Adolesc Psychiatry** June 2005;44:574-584). (Respond: Dr Keith Owen Yeates, Department of Psychology, Children's Hospital, 700 Children's Drive, Columbus, OH 43205).

COMMENT. Premorbid attention problems are exacerbated by TBI, and long-term behavioral symptoms of inattention are related to cognitive deficits in attention and executive functions occurring in association with TBI. Attention problems in children with ADHD are similar to those with TBI, and frontal-subcortical and cerebellar systems implicated in ADHD are often damaged in children with TBI (Gerring J et al, 2000, cited by the above authors).

In 78 preschool children who sustained a mild head injury, the incidence of cognitive deficits including reading difficulties at 6-12 months after injury, at age 6.5 years, was increased compared to a control group with minor injury not involving the head (Wrightson P et al. **J Neurol Neurosurg Psychiatry** 1995;59:375-380; **Ped Neur Briefs** Nov 1995). Even mild head injury, not requiring admission for observation, may result in cognitive deficits and impaired school performance.

ACCIDENTAL AND NONACCIDENTAL HEAD INJURIES IN INFANTS: DISTINGUISHING CHARACTERISTICS

One hundred fifty infants hospitalized with head injury over a 3-year period, 57 (38%) due to child abuse, were studied prospectively at the Departments of Pediatric Neurosurgery, Neuro-ophthalmology, and Legal Medicine, CHRU de Lille, France. Mean age at diagnosis was 5.3 months; 103 (69%) boys and 47 (31%) girls. Head circumference was abnormally high, above 97th percentile, in 28 (18.7%) cases. Of the 57 (38%) cases with trauma due to child abuse, 40 involved shaking and 17 involved beating; male to female preponderance was 3.14. Household accident was the cause of trauma in 55 (36.7%), birth trauma in 21 (14%), and traffic accident in 12 (8%) cases. Perinatal illness (prematurity, long labor etc) found in 54 cases, familial dysfunction such as alcohol or drug abuse in 29, absent