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LEARNING DISORDERS

COGNITIVE SEQUELAE OF MILD HEAD INJURY

The sequelae of mild head injury one to five years after injury, assessed in a longitudinal study of 13,000 British children born in one week in 1970, are reported from the Albert Einstein College of Medicine, Bronx, NY and Bristol Polytechnic and University of Bristol, England. Parental reports of mild head injury in 114 children treated with ambulatory care or admission to hospital for one night were compared with those of 601 children with limb fractures, 605 with lacerations, 136 with burns, and 1726 without injury. When the children were five and ten years of age the parents completed the Rutter Child Behavior Questionnaire. At age ten teachers also answered questions from both the Rutter and Connors' questionnaires. The picture vocabulary test was used to assess overall intelligence at age five and subtests of the British Abilities Scale were used at age ten. Children with head injuries were statistically indistinguishable from uninjured children on all tests except the teachers' report of hyperactivity which was 4/10 of a standard deviation higher. The authors concluded that mild head injury in school aged children does not have an adverse effect on global measures of cognition, achievement, and behavior one to five years after injury. (Bijur PE et al. Cognitive and behavioral sequelae of mild head injury in children. Pediatrics Sept 1990; 86:337-344).

COMMENT. Head injuries reported as concussion and which result in ambulatory care or hospitalization of one night do not have an effect on general intelligence, achievement, and aggression measured one to five years after the injury. The increase in hyperactive behavior was considered of doubtful

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significance. The teachers reports of hyperactivity were not likely to be biased but hyperactivity unrecognized by the parents before the injury may have resulted in greater vulnerability to head injury. Evaluated as a group, the occurrence of hyperactivity may not be remarkable but in those children who lost consciousness and required admission to hospital, the sequel of hyperactivity might be significant and worthy of careful follow-up and management.

RISK FACTORS FOR ATTENTION DEFICIT DISORDER

Family-genetic and psychosocial risk factors for DSM-III attention deficit disorder (ADD) were evaluated among the 457 first degree relatives of clinically referred children and adolescents with ADD compared with psychiatric and normal controls at the Child Psychiatry Service, Massachusetts General Hospital, Harvard Medical School, Boston. Relatives of ADD probands had a higher risk for ADD, antisocial disorders and mood disorders than did relatives of psychiatric and normal controls. The findings could not be accounted for by low social class or family disruption. (Biederman J et al. Family-genetic and psychosocial risk factors in DSM-III attention deficit disorder. J Am Acad Child Adolesc Psychiatry July 1990; 29:527-533).

COMMENT. These findings confirm that ADD is a highly familial disorder, and relatives of clinically referred ADD children and adolescents have a significantly increased risk for ADD.

Barkley RA et al (J Am Acad Child Adolesc Psychiatry July 1990; 29:546-557) report an eight year prospective follow-up study of the adolescent outcome of hyperactive children diagnosed by research criteria. More than 80% of the hyperactive children had ADHD and 60% had either oppositional defiant disorder and/or conduct disorder at outcome. Antisocial acts, cigarette and marijuana use, and negative academic performance were considerably higher among hyperactives than normals. Conduct disorder accounted for many though not all of these adverse outcomes. There was considerably greater risk for family disturbance and negative academic and social outcomes in adolescents than previously reported.

In the pediatric and pediatric neurology examination of children with learning and behavior problems, the Pediatric Evaluation of Educational Readiness test (PEER) can assist in the developmental follow-up of children at risk for learning and behavior disorders. Observations of behavior including attention and activity correlated with test results obtained independently by a psychometrist. (Blackman JA, Bretthauer J. Examining high-risk children for learning problems in the health care setting. Pediatrics Sept 1990; 86:398-404).