A possible causal relationship of perinatal asphyxia and CP should require the following: (1) severe newborn acidosis, (2) damage to other organs, (3) severe neurologic abnormalities in the first 24-72 hrs. (Niswander KR. Does substandard care cause cerebral palsy? Contemporary Pediatrics Jan 1988; 5(1):56-76.

COMMENT. This review and study tends to confirm the results and conclusions of the Neurological Collaborative Perinatal Project (NCPP) concerning prenatal and perinatal factors associated with brain disorders that only 25% of CP cases may be attributed to asphyxia at birth and that CP is only very rarely preceded by potentially preventable perinatal asphyxia. (Freeman JM, Ed. NIH Publications 85-1149, April 1985).

BEHAVIOR AND ATTENTION DEFICIT DISORDERS (ADD)

PSYCHIATRIC DISORDERS AND ADD

The frequencies of various psychiatric and neuromaturational disorders were compared in 22 ADD children aged 5-16 yrs and in 20 normal control subjects studied by structured diagnostic interviews with mothers in the Pediatric Psychopharmacology Clinic and Child Psychiatry Service, Massachusetts General Hospital, Boston.

Compared with controls, ADD patients had significantly higher rates of conduct disorder, oppositional disorder, major affective disorder, tics, language disorder/stuttering, encopresis and learning disorders. Enuresis occurred in 7 (32%) ADD children compared to 3 (15%) controls. The rate of affective disorders in ADD children was significantly higher in subgroups with conduct/oppositional disorders and anxiety and significantly lower in the subgroup with neuromaturational disorders (enuresis, encopresis, language disorders, tics) when compared to normal control subjects. The incidence of conduct disorders was increased in the ADD subgroup with anxiety disorders. The recongition of ADD subgroups and psychiatric co-morbidity may be clinically useful in prognosis and treatment. (Munir K, Biederman J, Knee D. Psychiatric comorbidity in patients with attention deficit disorder. J Amer Acad Child Adol Psychiat 1987; 26(6):844-848).

COMMENT. Previous studies have emphasized the need to correctly classify children with ADD into groups with or without conduct and anxiety disorders and those with abnormal neurologic signs and MBD when evaluating drug effects. (see Ped Neur Briefs 1987;1(2):14).

LANGUAGE DISORDERS AND ADD

The prevalence rates of speech and language disorders and ADD in 116 children referred for psychiatric services were determined at the Ontario Association of Children's Mental Health Centres and the Dept of Psychiatry, Hospital for Sick Children, Toronto, Canada. Speech and language disorders were diagnosed in 65% and ADD in 73%. Only 16% had speech and language disorders alone and only 25% had ADD alone. The overall prevalence for the dual diagnosis was 48%. Three-quarters of those with language disorders also had ADD and two-thirds with ADD also had language disorders. The average age at evaluation was 5 yrs. Boys outnumbered girls for language disorders with or without ADD. The presence of language disorder was correlated with intact family status in lower socioeconomic classes, single-child families, and serious parent/child problems. (Love AJ, Thompson MGG. Language disorders and attention deficit

disorders in young children referred for psychiatric services: analysis of prevalence and a conceptual synthesis. Amer J Orthopsychiat Jan 1988;58(1): 52-64).

COMMENT. This study suggests that pre-school children referred for psychiatric outpatient services are at high risk for language disorders. Failure to develop oral language on schedule is among the earliest concerns voiced by parents of children who later are identified as ADD or learning disabled. Speech and language evaluations should be included in any comprehensive examination of a child with ADD.

HYPERACTIVE BOYS IN ADOLESCENCE

The rates of dysfunction among male adolescents with a history of hyperactive behavior in childhood were examined in a follow-up study at the New York State Psychiatric Institute and Long Island Jewish Med Cntr, New York, NY. In a previous report, the authors found that half (48%) of the 101 formerly hyperactive subjects compared with 20% of 100 controls had psychiatric disorders at follow-up, including ADDH, antisocial personality disorder, and substance use disorder (SUD).

A comparison of the 52 patients and 80 controls who had not developed psychiatric disorders showed that hyperactivity in childhood did not lead to behavioral and social problems in later life. Academic functioning and conduct problems in high school, alcohol-related problems and conduct outside of school, and temper outbursts were not significantly different in the two groups. Inattention and hyperactivity were more prevalent in the former patient group, as expected, but drug use and drug-related problems, especially marijuana, were more frequent among the controls than in formerly hyperactive children.

These results suggest that the eventual occupational and social adjustment of hyperactive children is not different from that of controls and any tendencies to drug abuse may be less of a problem. Hyperactive children with psychiatric disorders form a deviant subgroup that must be identified for the purpose of treatment and prognosis. (Mannuzza S, Gittleman Klein R et al. Hyperactive boys almost grown up. II Status of subjects without a mental disorder. Arch Gen Psychiatry Jan 1988;45:13-18).

COMMENT. How many of these patients had neurological signs indicative of brain dysfunction in early childhood? The hyperactive patients without psychiatric disorders evaluated in this study are those often referred to the pediatrician or pediatric neurologist for management. They frequently have signs of minimal brain dysfunction during childhood that become less obvious in adolescence, many have electroencephalographic abnormalities, and the behavior and inattention respond to methylphenidate or other central nervous system stimulant medication.

Abnormalities of CNS maturation and function reflected by changes in brainstem auditory evoked potentials and abnormal EEG's characterize non-delinquent hyperactive children, while a subgroup of delinquent hyperactive children show normal maturational CNS changes. ADDH boys with neurological abnormalities have a better outcome than those with normal CNS functions who later become delinquent as a consequence of environmental-social factors. (Satterfield JH et al. Electroenceph clin Neurophysiol 1987; 67:531. Ped Neur Briefs 1988;2:8).

In addition to psychiatric diagnoses, the neurologic and EEG examinations are important in the differentiation of subgroups of hyperactive children.