

RISK OF SUBSTANCE ABUSE IN ADULTS WITH ADHD.

The association between attention deficit hyperactivity disorder (ADHD) and psychoactive substance use disorders in 120 adults with childhood-onset ADHD was evaluated with attention to comorbid mood, anxiety, and antisocial disorders in the Pediatric Psychopharmacology Unit, Psychiatric Service, Massachusetts General Hospital, Harvard Medical School, Boston. The lifetime risk of drug and drug plus alcohol use disorders in the ADHD adults was 52% compared to 27% of 268 control non-ADHD adults. The increased risk of drug and alcohol abuse or dependence related to ADHD was independent of psychiatric comorbidity. Antisocial disorders increased risk of drug abuse independent of ADHD. Mood and anxiety disorders were associated with increased drug abuse in both ADHD and control non-ADHD adults. (Biederman J et al. Psychoactive substance use disorders in adults with attention deficit hyperactivity disorder (ADHD): effects of ADHD and comorbidity. Am J Psychiatry Nov 1995;152:1652-1658). (Reprints: Dr Biederman, ACC 725, Massachusetts General Hospital, Boston, MA 02114).

COMMENT. Childhood onset ADHD persisting in adults without comorbidity carried a 40% risk of a lifetime diagnosis of substance use disorders. Drug abuse or dependence and drug plus alcohol abuse, but not alcohol abuse alone, were significantly increased in grown-up ADHD children compared to non-ADHD adult controls. Psychiatric comorbidity increased the risk of drug abuse. Marijuana was most commonly used (30 ADHD adults), cocaine in 10, and stimulants in 8. There were no differences in the preferred drugs of abuse between ADHD adults and normal comparison subjects. These results contradict the commonly held view that ADHD patients may show a predilection for stimulant drug abuse.

EFFECT OF SUGAR ON BEHAVIOR AND COGNITION

Meta-analysis of 16 published studies conducted over a period of 12 years from 1982 to 1994 was used to examine the effects of sugar, mainly sucrose, on the behavior or cognition of children with attention deficit disorder and reported from the Department of Pediatrics, Vanderbilt University, Nashville, TN. In studies selected, subjects had consumed a known quantity of sugar; a placebo (artificial sweetener) control had been used; subjects, parents and researchers were blind to the conditions; and statistics had been used to compute the dependent measures effect sizes. Most investigators had used doses per kgm body wt ranging from 1.25 to 5.6 g. Aspartame was used as placebo in 13. No effect of sugar on behavior or cognitive performance of these children could be demonstrated by meta-analysis of the data. A small effect of sugar in the total group or effects on subsets of ADHD children could not be ruled out. (Wolraich ML et al. The effect of sugar on behavior or cognition in children. A meta-analysis. JAMA Nov 22/29, 1995;274:1617-1621). (Reprints: Dr Wolraich, Department of Pediatrics, Vanderbilt University, Child Development Center, 2100 Pierce Ave, 426 MCS, Nashville, TN 37232).

COMMENT. The controversy regarding sugar and behavior and cognition continues. Despite this and other studies negating an adverse effect of sugar, parents and some physicians cite sucrose as a frequent trigger of hyperactive behavior and inattention in children. The authors admit that a small adverse effect may be overlooked in a meta-analysis

involving few controlled studies with selected patients. (see [Progress in Pediatric Neurology II](#), 1994, pp 516-19, for other articles on diet and behavior).

ASPERGER SYNDROME AND AUTISM COMPARED

The validity and neuropsychological characterization of Asperger syndrome (AS) was investigated by comparison with Higher-Functioning Autism (HFA) (ie autism associated with overall normal intelligence) in 73 potential subjects recruited from a consecutive case series seen at the Developmental Disabilities Clinic, Child Study Center, Yale University School of Medicine, New Haven, CT. A full scale IQ >70 and a diagnosis of AS or autism according to ICD-10 research criteria were required for inclusion. The sample selected included 21 with AS and 19 with HFA. The AS group had a higher Verbal IQ and lower Performance IQ in comparison with the HFA group. There was a significant interaction between clinical diagnosis and IQ type. A high degree of concordance between AS and the condition of Nonverbal Learning Disabilities (NLD) was observed when overlap between psychiatric diagnosis (ie AS/HFA) and neuropsychological characterization (ie NLD assets and deficits) was examined. The NLD profile was an adequate neuropsychological model for individuals with AS but not for HFA. The AS and HFA groups differed significantly in 11 neuropsychological areas. (Klin A et al. Validity and neuropsychological characterization of Asperger syndrome: convergence with nonverbal learning disabilities syndrome. *J Child Psychol Psychiatr* Oct 1995;36:1127-1140). (Reprints: Ami Klin, Child Study Center, Yale University School of Medicine, 230 South Frontage Road, New Haven CT 06520).

COMMENT. The neuropsychological profile obtained for children with Asperger syndrome (AS) coincided with that of the nonverbal learning disabilities syndrome (NLD) and differed from patients with higher-functioning autism. The defining criteria for NLD included assets in auditory perception and memory, vocabulary, and spelling, and deficits in motor skills, visual-motor integration, visual-spatial perception, visual memory, verbal content, reading comprehension, arithmetic, and social and emotional competence. The authors suggest that intervention strategies for AS should differ from those for autism, directly addressing specific neuropsychological deficits and building on neuropsychological assets, an approach found useful in individuals with nonverbal learning disabilities syndrome.

BRAIN TUMORS

SIGNS OF BRAIN TUMORS IN INFANTS

The presenting symptoms and signs of intracranial tumors diagnosed before the age of 2 years in 21 children treated at the University Hospital of Wales are reported from the Department of Child Health, Cardiff, UK. Nine of the tumors were supratentorial and 12 were infratentorial. The commonest tumor types were astrocytoma in 5, ependymoma 4, and medulloblastoma in 4. The interval between onset of symptoms and diagnosis ranged from less than 1 day to 7 months. Nine had symptoms for at least 3 months before diagnosis. CT or MRI and biopsies were performed in all cases. The commonest presenting symptoms were vomiting in 9, and unsteadiness in 8. The commonest presenting sign was enlarged head circumference in 16. Meningitis was