

COMMENT. The loss of previously acquired language in young children is the most prominent feature of autistic regression and Landau Kleffner syndrome and requires early specialized evaluation and intervention. The most common age for regression to occur is in the second year, but referral to a pediatric neurologist or child psychiatrist is often delayed for 3 or 4 years, when regression has become more global and associated with cognitive and behavioral disorders, seizures, and autism. An EEG to rule out ESES and Landau Kleffner syndrome could lead to early steroid trials and possible surgical treatment. The occurrence of seizures and EEG abnormalities, often associated with autistic regression, might require treatment with antiepileptic drugs.

ATTENTION DEFICIT DISORDERS

PRESCHOOL CHILDREN WITH ADHD

Differences in behavioral, social, and school functioning of 58 preschool-age (3 -5 years) children with attention deficit/hyperactivity disorder and 36 normal controls were examined at Lehigh University, Bethlehem, PA. Parent and teacher behavior ratings showed more problem behavior and impaired social skills in ADHD children. The parents of ADHD children experienced greater stress, they were less adapted to coping, and were more likely to exhibit negative responses toward their children. ADHD children showed more negative social behavior in preschool settings, were more noncompliant, their behavior was inappropriate during task situations, and they scored significantly lower on a test of preacademic skills. (DuPaul GJ, McGoey KE, Eckert TL, VanBrakle J. Preschool children with attention-deficit/hyperactivity disorder: impairments in behavioral, social, and school functioning. J Am Acad Child Adolesc Psychiatry May 2001;40:508-515). (Reprints: Dr DuPaul, School Psychology Program, Lehigh University, 111 Research Drive, Bethlehem, PA 18015).

COMMENT. Preacademic skills and preschool classroom behavior should be evaluated in young children with ADHD so that parent training techniques in child management may be taught and introduced early (see Ped Neur Briefs April 2001;15:28-29). Preschoolers with ADHD exhibit more than twice the level of noncompliance and five times the inappropriate behavior of control children when asked by parents to complete tasks. Parents' coping skills are also deficient and their responses more negative. Child disruptive and negative social behavior is common during unstructured, free-play activities in preschool classrooms. ADHD children have lower scores on cognitive tests and will enter school at an academic disadvantage, unless the problem is addressed early.

PSYCHOSTIMULANTS IN PRESCHOOL CHILDREN WITH ADHD

A retrospective chart review of 27 preschool children with ADHD who were treated with psychostimulants between 3 and 5 years of age, inclusive, was conducted at the Kennedy Krieger Institute, Johns Hopkins University School of Medicine, and the University of Maryland School of Medicine, Baltimore, MD. Methylphenidate (MPH) was given in 22 (82%), dextroamphetamine in 4, and Adderall in 1. Eight were switched to an alternate stimulant during follow-up, because of inadequate response, side effects, or rebound. The mean mg/kg daily doses and mean total daily doses of MPH were 0.55-1.16 mg/kg and 12-26 mg. Amphetamine doses were 0.43-0.6 mg/kg daily and 7.5-15 mg/daily. A Clinical Global Impressions (CGI) scale to rate severity of ADHD showed significant improvements at 3, 12, and 24 months of treatment. Side effects were mostly mild,

in 63% of children at 3 months, 41% at 12 months, and 29% at 24 months. Decreased appetite occurred in 52%, stomachache in 40%, depression in 30%, headache in 26%, insomnia 22%, tachycardia 7%, picking at skin 4%, rocking 4%, and nosebleeds 4%. Growth was not slowed. Treatment was discontinued in 11% because of side effects. Comorbid disruptive behavior, anxiety, or mood disorders occurred in 26% and required concomitant psychotropic medications. (Ghuman JK, Ginsburg GS, Subramaniam G et al. Psychostimulants in preschool children with attention-deficit/hyperactivity disorder: clinical evidence from a developmental disorders institution. J Am Acad Child Adolesc Psychiatry May 2001;40:516-524). (Reprints: Dr J Ghuman, Director, Infant and Preschool Psychiatry Clinic, Kennedy Krieger Institute, 1750 East Fairmount Avenue, Baltimore, MN 21231).

COMMENT. Preschool children with ADHD and developmental disorders respond to psychostimulant medication but require close monitoring because of a relatively high incidence of side effects. A high rate of comorbid ODD and mood disorders may require concomitant or alternative psychotropic medications. A previous study, reviewed in Ped Neur Briefs April 2001;15:28-29, has demonstrated that parent training in behavior management techniques may accomplish a similar response to psychostimulants without the risk of side effects.

CARDIOVASCULAR SIDE EFFECTS OF PSYCHOSTIMULANTS

The short-term cardiovascular effects of methylphenidate (MPH) and Adderall (ADL) were examined in a clinic-based group of 195 youths, ages 4 to 17 years, treated at the University Hospitals of Cleveland, Case Western Reserve University. Resting pulse, and diastolic and systolic blood pressures were examined at baseline and after 1 week of placebo, and 3 dose levels of drug (5, 10, and 15 mg twice daily for MPH and once daily for ADL). Blood pressure and pulse were increased when measured 40 to 120 minutes after a dose of stimulant, but on average, changes were <5 mm Hg and <5 beats per minute. The effects were related to dose and of similar magnitude after MPH and ADL, but changes were not considered clinically meaningful. (Findling RL, Short EJ, Manos MJ. Short-term cardiovascular effects of methylphenidate and Adderall. J Am Acad Child Adolesc Psychiatry May 2001;40:525-529). (Reprints: Dr Findling, Director, Division of Child and Adolescent Psychiatry, University Hospitals of Cleveland, 11100 Euclid Avenue, Cleveland, OH 44106).

COMMENT. Short-term (1-3week) cardiovascular effects of methylphenidate and Adderall, as determined by changes in blood pressure and pulse rate, are minimal and not considered clinically significant. The authors suggest that routine cardiovascular monitoring is unnecessary during short-term treatment of ADHD with doses of 15 mg/day or less of MPH or ADL. None of the patients in this study had a history of hypertension, hypotension, or cardiovascular disease, and concomitant electrocardiograms were not obtained.

In our Clinic for Attention Deficit Disorders, Division of Neurology, Children's Memorial Hospital, an electrocardiogram and cardiac consultation is obtained if a heart murmur is detected at the initial evaluation or if a child complains of chest pain on exercise or palpitation during therapy. In a 10-year-old child with ADHD who was referred taking MPH-sustained release (20 mg tid, 60 mg/daily), a heart murmur was detected and the ECG showed a prolonged QT interval. The ECG returned to normal after reduction and withdrawal of MPH and remained normal with subsequent substitution of Adderall 5 mg bid (Millichap JG, Yee M, and colleagues in Division of Cardiology; personal observations).