

Full Exam Guides ADHD Diagnosis in Preschoolers

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CHICAGO — The diagnosis and treatment of attention-deficit/hyperactivity disorder in preschoolers are tricky, although there is evidence to support the use of stimulants in their treatment, Dr. Alison Schonwald said.

Diagnosing children as young as 3 and 4 years is difficult in part because ADHD symptoms at this age mimic many other

conditions such as anxiety and depression, hearing or vision problems, learning or cognitive deficits, and lead exposure. Children whose parents have serious mental health issues also can look disorganized, inattentive, and impulsive. The same is true for children who've been traumatized. "I've personally never seen a kid who's living in a shelter who didn't look like they had ADHD," said Dr. Schonwald of Harvard Medical School in Boston.

The other issue is simple variation in

normal development. Children start to develop the ability to inhibit their behavior at 3 years, while at 4 years most children can voluntarily direct their attention to uninteresting tasks. Not all children, however, follow the same developmental trajectory, with differences in temperament and sex also playing into the equation.

"I do often find a difference between girls and boys," Dr. Schonwald said at a meeting sponsored by the American Academy of Pediatrics. "There are some 4-year-old girls

who can sit for 2 hours and happily color. Not a lot of 4-year-old boys can do that."

A diagnosis of ADHD in a preschooler is rarely made based on history, observation, and teacher rating scales alone, but only after a full evaluation that includes cognitive and language testing, the pediatrician explained.

Treatment begins with parent training and environmental modifications to help the child function better and to ensure his or her safety. Structured preschool with an experienced teacher also is recommended. Medication is used only when behavioral interventions are ineffective or when the child is exhibiting dangerous behaviors.

Evidence to support stimulant use in preschoolers comes from the Preschool ADHD Treatment Study, in which 2.5 mg, 5 mg, and 7.5 mg methylphenidate three times a day resulted in a significant decrease in ADHD symptoms in 165 children, aged 3-5.5 years (*J. Am. Acad. Child Adolesc. Psychiatry* 2006;45:1284-93). The mean optimal total daily dosage was 14.2 mg/day.

The categorical criterion for remission, however, was met in only 21% of children on their best dose and in 13% on placebo, suggesting that the magnitude of improvement with methylphenidate is going to be lower in preschoolers, Dr. Schonwald said.

"I think that for typical kids in elementary school or older with ADHD, you can treat 90% of them with an ADHD medication that is effective and well tolerated, but you're not going to get such good numbers with preschoolers," she said.

Moderate to severe adverse events were reported in 30% of children, chiefly decreased appetite, trouble sleeping, and weight loss. But aggression and increased blood pressure also were reported. In addition, annual growth rates were 20% less than expected for height (-1.38 cm/yr) and 55% less for weight (-1.32 kg/yr).

Although there was no signal of cardiac irregularities in the study, cardiac monitoring is now a consideration when using ADHD drugs in children. Concerns about the risk of sudden cardiac death associated with stimulant use in children prompted the American Heart Association to issue a statement in April 2008 recommending cardiac risk screening and ECGs routinely in children before the start of ADHD medications (*Circulation* 2008;117:2407-23), although the recommendation for routine use of ECGs later was withdrawn.

The recommendations caused a stir in the pediatric community, with the AAP responding with a policy statement of its own containing a cardiac evaluation algorithm (*Pediatrics* 2008;122:451-3). It recommended that "clinicians carefully assess all children for cardiac abnormalities, including those in whom ADHD treatment is being considered, by using history and physical assessment," but against "the routine use of ECGs before initiating stimulant therapy for ADHD."

Dr. Schonwald said she performs an ECG only in patients with a concerning personal history or suggestive family history. Dr. Schonwald disclosed that she is on the speakers bureau for Ortho-McNeil Pharmaceutical Inc. and previously has spoken for Novartis. ■

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