

Consider Behavioral Therapies First for ASD

BY KERRI WACHTER
Senior Writer

BALTIMORE — Medication is not a sure-fire solution for the symptoms associated with autism spectrum disorders, according to Dr. Kenneth E. Towbin.

"Many people seek medication for children with autism spectrum disorders, imagining that there is a magic bullet that is going to reduce or eliminate the child's symptoms. There are no magic bullets," said Dr. Towbin, who is chief of clinical child and adolescent psychiatry in the intramural research program at the National Institute of Mental Health.

Still, many children with autism spectrum disorders (ASD) end up on medication, Dr. Towbin said at a conference on autism sponsored by Kennedy Krieger Institute. Several studies estimate that about half of children with ASD have received a prescription medication in the last year.

The primary treatments for autism spectrum disorders are education and behavioral therapies. As a secondary treatment, medication may help reduce some symptoms in ASD, and can be helpful and important, said Dr. Towbin.

Medications should be considered when a child's safety or personal distress is at issue. Drug therapy also can be considered when there is adversity in the child's family life or to sustain educational progress. Lastly, medications can be considered for the treatment of aggression, hyperactivity, perseveration/stereotypy, inattention/distractibility, anxiety, inflexibility, and depression.

Parental collaboration is crucial when choosing drug therapy for ASD symptoms. Parents must understand that medication will not work quickly to improve symptoms, he said.

Be sure to educate parents to assess symptoms, maintain behavioral interven-

tions, and monitor possible side effects. Children with ASD have abnormal sensitivities, which may leave them more vulnerable to medication side effects, Dr. Towbin noted.

Before starting a child with ASD on medication, take the time to understand the nuances within each child's situation. Dr. Towbin told the story of an adolescent patient who was beginning to act out and be disruptive—but only during school—so much so that he was often sent home. Dr. Towbin was approached to start the boy on medication to minimize this behavior.

After talking with the young man, Dr. Towbin learned that teachers had been openly discussing a possible teachers' strike in front of the special education students. As it turned out, the boy was upset about the possibility of a strike and how this would disrupt school—which he liked very much. Optimizing the child's environment and educating others often might prove more helpful than medication. "Medication does not reverse a bad situation," he said.

Dr. Towbin offered the following guidelines for using pharmacotherapy to treat children with ASD:

- ▶ Target specific symptoms.
- ▶ Start at the smallest possible dose.
- ▶ Increase doses using the smallest possible increments.
- ▶ Increase doses only after sufficient time has elapsed to gauge the effects of the current dose.
- ▶ Monitor the effects on the specific target symptoms.
- ▶ Look for side effects routinely.
- ▶ Minimize the use of more than one drug at a time.
- ▶ Start a second drug only after reaching the maximum feasible dose of the first drug.

Questions to Ask Before Treating

1. What are the frequency, intensity, and duration of symptoms?
2. What times and locations are associated with symptom onset?
3. What are the ameliorating and aggravating factors?
4. How are these symptoms trending over time?

Source: Dr. Towbin

▶ Start a new drug only after sufficient time at the maximum dose has been achieved.

▶ If changing a combination of medications, change only one medication at a time over intervals that are long enough to assess the impact of the change.

The symptom of depression may be a feature that occurs more commonly in higher-functioning autism spectrum individuals, especially in the late-childhood/early-adolescence period, he noted. SSRIs (fluvoxamine [Luvox], fluoxetine, and sertraline [Zoloft]) and the tricyclic agent clomipramine (Anafranil) have been suggested for treating depression in children with ASD. However, Dr. Towbin described the data for using these drugs in this patient population as so-so.

Dr. Towbin offered a few cautionary notes. Children on SSRIs can have interactions with medications they might be taking already. "When you get into polypharmacy, you have to be very careful about how the drugs interact with one another."

Dr. Towbin reported that he has no financial conflicts of interest. ■

Suggested Treatments for ASD

Symptom(s)	Drugs	Comment
Hyperactivity	methylphenidate haloperidol risperidone (Risperdal) atomoxetine (Strattera) clonidine	For a child who is hyperactive but not inattentive.
Aggression and irritability	haloperidol risperidone	Evidence not as clear for clonidine and divalproex sodium.
Perseveration and stereotypy	haloperidol risperidone	Acceptable choices but SSRIs such as clomipramine (Anafranil), fluvoxamine (Luvox), and fluoxetine have better safety profiles.

Source: Dr. Towbin

ELSEVIER GLOBAL MEDICAL NEWS

Prevalence of Autism in Three States Linked to Precipitation

BY MARY ANN MOON
Contributing Writer

Autism prevalence in three Western states has been linked to precipitation there, so that the heavier the precipitation, the higher the prevalence of the disorder among genetically vulnerable children, a report in the Archives of Pediatric and Adolescent Medicine shows.

This finding supports the hypothesis that an environmental trigger may play a significant role in autism, affecting children who are already genetically predisposed to the disorder.

"Our results clearly are not definitive . . . but [they] are consistent with the hypothesis, and, therefore, further research focused on establishing whether such a trigger exists and on identifying it is warranted," said Michael Waldman, Ph.D., of the Johnson Graduate School of Management, Cornell University, Ithaca, N.Y., and his associates.

The investigators noted that several state surveys overseen by the U.S. Department of Education and a recent Centers for Disease Control and Prevention study all indicated that autism prevalence is higher in certain northern regions of the country, and lower in dry areas of the south and southwest.

They assessed a possible correlation with precipitation in Washington, Oregon, and California, where regions west of the mountains receive almost four times as much precipitation as do regions to the east. Using regression analysis, the investigators found that autism prevalence was higher in counties that received abundant precipitation. It also was higher for birth cohorts that received above-average precipitation relative to the usual amount in that county, Dr. Waldman and his associates said.

"The magnitude of the measured relationships is substantial," they noted (*Arch. Pediatr. Adolesc. Med.* 2008;162:1026-34).

"They are not proposing that autism is related to rain and snow per se, but that it may be related to indoor activities or exposures that are increased during bad weather.

For example, early, excessive television and video viewing has been associated with psychopathological traits such as poor language and cognitive development. It may be that this exposure produces only mild health consequences in most children but produces more serious problems such as autism in genetically vulnerable children.

"Another possibility is that vitamin D deficiency is an environmental trigger for autism," the researchers wrote. Higher precipitation means less exposure to sunshine, the major source of vitamin D, and vitamin D deficiency "can lead to reduced levels in the developing brain of calcitriol, a critical neurosteroid involved in brain development," they added.

Any environmental trigger that is associated with indoor activities could be at fault, including household chemicals. And it also is possible that precipitation is more directly involved, by transporting chemicals in the upper atmosphere to the ground, for example. Or high precipitation may promote the overgrowth of weeds or expansion of the insect population, which in turn increase the use of pesticides, they wrote.

In an accompanying editorial, Dr. Noel S. Weiss of the University of Washington, Seattle, noted that the study findings are "tentative" and were intended to prompt further research into environmental triggers, not to implicate rainfall itself.

"The primary audience of Waldman et al is not the practicing pediatrician, and certainly, it is not a member of the public at large. These individuals cannot take away any practical message from it. Rather, the primary target is an investigator interested in the causes of autism, someone who might be able to test one or more of the etiologic hypotheses that derive from [the study]," he said (*Arch. Pediatr. Adolesc. Med.* 2008;162:1095-6).

The researchers "have made it clear that the message the public should take from their data regarding precipitation and autism is . . . 'No call for alarm, stay tuned,'" Dr. Weiss wrote. ■