Volume 17, No. 3

**SAVE THE DATES!** MINI-DAN! CONFERENCE Jan. 17-18, New Orleans
DAN! CONFERENCE April 16, 17 & 18, Washington, D.C.

2003

# Autism Research Review

# INTERNATIONAL

**A quarterly publication of the Autism Research Institute**

**Reviewing biomedical and educational research in the field of autism and related disorders**

## More proof of dramatic results of intensive early intervention reported

More confirmation of the dramatic benefits of early intensive behavioral intervention (EIBI) in autism was reported recently by James Mulick and colleagues.

The researchers studied eight young children and their families from around the country. All of the children were reliably diagnosed as both autistic and mentally retarded, and all had participated in at least one year of EIBI programming similar to that provided by Ivar Lovaas' Young Autism Project at UCLA. The researchers wished to determine if their findings would be consistent with those of Lovaas, who reports that nearly 50 percent of autistic children receiving early intervention through his program are later mainstreamed into regular classes.

While the study results are preliminary, Mulick and colleagues report that the children's progress is remarkable, with six of the eight subjects having at least average IQ scores after treatment, and two others improving to the range of mild mental retardation. In addition, most participants showed marked behavioral improvements and reductions in autistic symptoms.

Among the findings:

- Before treatment, all participants had IQ scores below 51. Afterward, all had IQ scores above 70, and one had an IQ of 114.
- Seven of the eight participants made significant gains in adaptive behavior, and all improved their academic skills to a level that will allow them to attend regular classes.
- After intervention, all participants had borderline to normal scores on nonverbal cognitive skills.
- Following treatment, only one participant still had symptoms severe enough to qualify for a diagnosis of autism, and only one exhibited significant emotional or behavioral problems.

The researchers note, however, that language skills remained a problem for at least half of the participants. "We saw autistic children with some of the rosiest outcomes," Mulick says, "but there were still residual symptoms." He questions whether half of the participants will achieve normal functioning, as was reported in the Lovaas study.

However, he concludes, "We were taught at one time that it couldn't happen—people who were mentally retarded couldn't become average. But we found it can happen among at least some with autism."

Before treatment, all participants had IQs below 51. Afterward, all had IQ scores above 70, and one had an IQ of 114.

The Mulick et al. study is the latest in a series of reports showing remarkable progress in young autistic children receiving intensive early intervention. Last year, for example, Gina Green et al. reported that the treatment was effective even for a one-year-old child (see ARRI 16/2), and Svein Eikeseth et al. published research showing that Lovaas-type training is effective even for children who enter treatment after age 4, although the benefits are less pronounced (see ARRI 16/1).

—

Mulick et al.'s findings were presented at the annual meeting of the American Psychological Association in Toronto on August 7, 2003 and are reported in "Some autistic children make remarkable progress with intensive behavioral program, study suggests," news release, Ohio State University, Columbus, Ohio, http://www.osu.edu/researchnews/archive/autism3.htm.

## Mercury overload reported in autistic children

New evidence linking autism to the mercury in childhood vaccines comes from a study analyzing the effects of chelation—which removes heavy metals from the body—on the urinary mercury concentrations of autistic and non-disabled children.

Jeff Bradstreet et al. administered the oral chelating agent DMSA to 221 children with autism spectrum disorders and 18 non-disabled controls. After a three-day course of DMSA, the researchers analyzed levels of heavy metals in the children's urine.

They report that the autistic children secreted much higher amounts of mercury in their urine than the controls, a difference that was even more pronounced when vaccinated autistic children were compared to vaccinated control children. No association was seen between autism and urinary cadmium or lead concentrations, and no differences in mercury excretion were seen when the researchers compared non-vaccinated to vaccinated controls. (All autistic children had been vaccinated.)

Bradstreet et al. say their results are consistent with those of Amy Holmes and colleagues (see ARRI 17/2), who recently reported that that first-haircut samples from autistic children contain far less mercury than samples from non-disabled children. "Our results and those of Holmes et al.," they say, "probably result from a decreased ability of children with autistic spectrum disorders to excrete mercury, resulting in the retention of potentially toxic mercury levels." The researchers say their findings are of particular concern given new reports showing that even low doses of the mercury-containing vaccine additive thimerosal can cause damage or death in neurons and fibroblasts.

The researchers say their data support recent epidemiologic evidence showing a direct association between increasing mercury in vaccines and neurodevelopmental disorders in children. This earlier research, reported by David and Mark Geier, showed that children receiving thimerosal-containing vaccines had a two- to six-fold increased risk of neurodevelopmental disorders compared to children receiving thimerosal-free vaccines.

Bradstreet et al. conclude that their data, along with those of other researchers, "increase the likelihood that mercury is one of the main factors leading to the large increase in the rate of autism and other neurodevelopment disorders."

—

"A case-control study of mercury burden in children with autistic spectrum disorders," Jeff Bradstreet, David A. Geier, Jerold J. Kartzinel, James B. Adams, and Mark R. Geier, *Journal of American Physicians and Surgeons*, Vol. 8, No. 3, Summer 2003, 76-9. Address: Mark R. Geier, 14 Redgate Court, Silver Spring, MD 20905, mgeier@erols.com.

***THE DECEITFUL DANISH STUDIES -- SEE PAGE 3***