Data Linking Autism, Measles Virus In Intestines Viewed as Preliminary

BY DIANA MAHONEY
New England Bureau

MONTREAL — Measles found in the intestines of a cohort of autistic children with bowel disease should not be perceived as proof of an association between the measles virus and autism, Stephen J. Walker, Ph.D., stressed at the 5th International Meeting for Autism Research.

“We haven’t done anything to demonstrate that the measles virus is causing autism or even causing bowel disease. We have simply shown that there is measles virus in the guts of a large number of children who have regressive autism,” said Dr. Walker, of Wake Forest University in Winston-Salem, N.C.

A high percentage of children with autism have chronic bowel disease, which can have a direct influence on cognitive and behavioral issues associated with the condition, Dr. Walker said.

To determine several potential causes of autistic enterocolitis, the non-specific ileocolitis with ileocolonic lymphonodular hyperplasia that plagues many of these children, Dr. Walker and coworkers have so far assayed terminal ileum biopsy tissue from 82 of 275 autistic children who had been referred to a pediatric gastroenterologist for evaluation. Eighty-five percent of the children tested, all of whom have the regressive form of autism in which an apparently normal child loses skills, have tested positive for the virus.

In addition, Dr. Walker noted, “of the handful of results we have in so far, all of the measles viruses are vaccine strains and none are wild measles.”

In emphasizing that the findings are preliminary, Dr. Walker noted that “there’s a great deal of controversy surrounding the MMR vaccine-autism theory. Dr. Walker suggested that the objectives and findings of this study be considered in the “proper context,” noting that “our goal is to discover the biology of bowel disease in these children and to gain insight into the most effective ways to treat it.”

Relieving the bowel discomfort is a top priority. “These kids experience severe stomachaches every hour of every day, and many of them are nonverbal, so they can’t communicate their pain,” he said. Instead, they exhibit behaviors often considered characteristic of their autism, such as leaning over the edge of a table or chair for hours at a time.

Identification and treatment of the bowel disease can lead to improvements in other areas, Dr. Walker noted. “There is case after case where kids improve cognitively and behaviorally, and there’s no one way they improve. Instead, they exhibit certain behaviors that are often considered nonverbal, so they can’t communicate their pain,” he said. Instead, they exhibit behaviors often considered characteristic of their autism, such as leaning over the edge of a table or chair for hours at a time.

It is essential to address the bowel disease as quickly as possible, Dr. Walker said. “Currently, many children have medical problems that are being treated slowly, if at all,” he noted.

The states of engagement were defined as: unengaged, in which the child is not involved with any object or event; unstructured play, where the child is playing another’s activity but is not taking part in it; engaged, in which the child is focused solely on an object by himself, minus any type of communication with another person; person engaged, where the child is engaged in an interaction with another person but does not shift his or her attention between the person and object; supported joint attention, in which the child and another individual are actively involved in the same object, but the child shows little awareness of the other’s involvement; and coordinated joint attention, where the child actively attempts to elicit and maintain an object of focus, or her attention to both another person and the object resulting in a shared social experience.

All of the children were evaluated using the Mullen Scales of Early Learning, which assess early cognitive ability and motor development. Of the 10 children—six males and four females with a mean age of 38 months—four were defined as lower functioning based on their Mullen scores; 6 were considered higher functioning.

At four equally spaced time points during the 12-week program from the time of admission to discharge, each child was observed for 15 minutes in each of four different contexts, including one-on-one interaction, structured play, circle time, and unstructured play. For observational coding, each 15-minute session was divided into 30-second time intervals, at the end of which the child’s predominant engagement state was recorded. For each time point, a total score for each state was calculated across all four contexts to represent the mean number of intervals that the child was engaged in a specific engagement state.

Over the 12-week study period, “all of the children demonstrated decreases in the proportions of time spent in unengaged and on-looking states, and all increased the time spent in engaged states,” Dr. Paparella reported. The trajectories of change in the various engagement states varied, depending on the child’s functional level, she noted. “The four lower-functioning children showed good increases in the lower-level engagement states and more gradual trajectories of change with the successively advanced states.” In contrast, “the higher-functioning children showed dramatic increases in the more socially complex joint attention states.”

The ability to change autistic children’s attention states—and, in particular, to aid in the development of joint attention behaviors—through intensive behavioral intervention may play an important role in developing more complex social behaviors and communication skills, Dr. Paparella said. Simply decreasing the amount of time spent in passive states relative to active, engaged states can have a substantial impact on how children with autism experience the world. Further studies are needed to examine which aspects of the intervention have the most impact on attention states, she said.

Intervention Can Improve Attention in Autism

BY DIANA MAHONEY
New England Bureau

MONTREAL — Intensive intervention programs that focus on joint attention using a child-directed teaching approach can affect change in autistic children’s attention states, and potentially improve social functioning, in their long-term prognosis, Tanya Paparella, Ph.D., said at the 9th International Meeting for Autism Research.

Joint attention—which refers to the propensity of a child to engage others’ attention through eye contact, referential eye gaze, and pointing—as a way to share others’ attention to the child-directed teaching approach can affect change in autistic children’s attention behaviors, Dr. Paparella and her colleagues evaluated the outcomes of 10 ECPIHP participants using an observational measure designed to examine the proportion of the total time each child spent in any of six engagement states.

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Self-Reports of Depressive Symptoms Tied to Asthma

Child-reported depressive symptoms are more strongly associated with asthma than are clinician- or parent-reported symptoms, reported Dr. James Waxmonsky and his colleagues at the State University of New York at Buffalo.

Dr. Waxmonsky and his colleagues found that clinically significant depressive symptoms were reported in more than one-quarter of the children (26%) in the study, which looked at 129 asthmatic inner city children aged 7-17 years.

The researchers evaluated the prevalence of depression and the best ways to measure symptoms in inner city children with asthma, because this population is understudied and may be predisposed to physical and emotional illness (J. Am. Acad. Child Adolesc. Psychiatry 2006;45: 945-54).

Each child’s depression was assessed using several measures, including the Child Depression Inventory, Children’s Depression Rating Scale—Revised, and Child Behavior Checklist—Internalizing Scale. The depression rating scales were significantly correlated with one another, but self-report measures, such as the CBI, may be the most effective at assessing the link between depression and asthma “because they may best capture depressive symptoms that compromise airway conduc-

Overall, 96 children (74%) had moderate to severe asthma, and the mean lung function, based on forced expiratory volume in 1 second, was 88.1 FEV1. Asthma was significantly associated with mi-

Previous studies have shown associations between parental depression and children’s asthma, but no signifi-

By Heidi Splete