Experts to Discuss One Puzzling Autism Case, as a Second Case Has Arisen

By GARDINER HARRIS

Federal health officials on Sunday will call together some of the world's leading experts on an obscure disease to discuss the controversial case of a 9-year-old girl from Athens, Ga., who became autistic after receiving numerous vaccinations.

But the government has so far kept quiet a second case that some say is more disturbing and more relevant to the meeting.

On Jan. 11, a 6-year-old girl from Colorado received FluMist, a flu vaccine, and about a week later "became weak with multiple episodes of falling to ground" and "difficulty walking," according to a case report filed with federal health officials and obtained by The New York Times.

The girl grew increasingly weak and feverish and "became more limp, appears sleepy, acts as if drunk," the report said. She was hospitalized and underwent surgery and was finally withdrawn from life support. She died on April 5, according to the report.

Both the 9- and 6-year-olds had mitochondrial disorders, a spectrum of genetic diseases that have received almost no attention from federal health officials. The 9-year-old, Hannah Poling, was 19 months old and developing normally in 2000 when she received five shots against nine infectious diseases. Two days later, she developed a fever, cried inconsolably and refused to walk. In the next seven months, she spiraled downward, and in 2001 doctors diagnosed autism.

No one knows whether vaccinations had anything to do with the girls' health problems, and the scientific significance of individual cases is always difficult to assess. But suggestions that mitochondrial disorders could be set off or worsened by vaccinations, and that the disorders might be linked to autism, prompted the meeting on Sunday and has brought the disorders sudden national attention.

Those scheduled to present at the meeting who were contacted by The Times said they knew nothing of the Colorado case.

"I haven't heard about this case," said Dr. Thomas R. Insel, director of the National Institute of Mental Health and the day's first speaker.

Dr. John Iskander, acting director of the immunization safety office at the Centers for Disease Control and Prevention, said his group had studied the Colorado case closely but did not discuss it with those presenting at the meeting and had no plans to present the case to the conference, although he and members of his group will attend.

"Part of the consideration is, what was the best use of that time?" Dr. Iskander said in an interview. "To a large extent, the judgment of the meeting organizers was to have the experts in these conditions — which are not vaccine safety experts — to have most of the agenda."

Dr. Iskander said the Clinical Immunization Safety Assessment Network of the disease agency reviewed the medical records related to the Colorado and Georgia cases, searched for similar reports and asked vaccine manufacturers if they knew of similar cases. A spokeswoman for MedImmune, the maker of FluMist, declined to comment.

The team noted that the Colorado child had not experienced any problems with her previous vaccinations and was relatively old at the time of her diagnosis. Dr. Iskander said the group had concluded "that this is another case that points to the need of better data on the risks and benefits of vaccinations in children with these rare disorders."

Study after study has failed to show any link between vaccines and autism, but many parents of autistic children are convinced that vaccines — usually given around the time autism becomes apparent — are to blame.

Possible links between mitochondrial disorders, autism and vaccination.

Parents and a small group of doctors have offered a variety of scientific explanations in recent years to try to explain why they think vaccines may cause or contribute to autism. Among the first was that the measles vaccine caused a low-level measles infection that affected children's brains. The science underlying that theory has since been discredited.

The next theory was that a mercury-containing vaccine preservative, thimerosal, poisoned their brains, causing autism. Multiple studies have failed to find any relationship between thimerosal exposure and autism, and nearly seven years after the preservative was removed from childhood vaccines, autism rates seem unaffected.

The Poling case, however, offered advocates a new theory: that vaccines may cause or contribute to an underlying mitochondrial disorder, which in turn causes autism. Although autism is common among children with mitochondrial disorders, several experts in the disorders dismissed the notion that vaccines may cause the disease, which is widely understood to have a genetic origin.

"After caring for hundreds of children with mitochondrial disease, I can't recall a single one that had a complication from vaccination," said Dr. Darryl De Vivo, a professor of neurology and pediatrics at Columbia University who will present at the meeting on Sunday and is one of the premier experts in the field.

Mitochondria, which serve as the energy factories of cells, have their own genetic material that is passed directly from mother to child. Flaws in this material are relatively common. As those flaws multiply, they interfere with mitochondrial function.

Dr. De Vivo said as many as 700,000 people in the United States had flawed mitochondria, and in roughly 30,000 of them the genetic flaws were expansive enough to cause disease.

Diseased mitochondria may appear in some parts of the body but not others, making diagnosis difficult and predictions of symptoms impossible. Infants with the disease may suffer frequent seizures and delayed motor and mental development, be short in stature and have hearing and eye movement problems. But in most sufferers, symptoms do not become apparent for years and may first present as weak or stiff muscles, poor coordination or alterations of posture.

A disease where diagnosis is difficult and predictions of symptoms impossible.

Many experts said infections could be so devastating to those with mitochondrial disorders that the risks associated with vaccines were far outweighed by the benefits. Still, none dismissed the notion that a vaccine could cause a decline in such children.

"Most of these kids get a common cold, and either during the cold or soon after, the parents notice a drastic deterioration," said Dr. Bruce H. Cohen, a neurologist at the Cleveland Clinic.

Margaret Dunkle, a senior fellow at the Center for Health Services Research and Policy at George Washington University and great-aunt to Hahnah Poling, said she hoped that the researchers on Sunday would agree on studies that would help "to identify who those children are for whom vaccination might cause or worsen a mitochondrial dysfunction so that we can figure out a way to immunize those children safely."

"What's the schedule and number of vaccines?" Ms. Dunkle asked. "What's the content of those vaccines?"

Dr. Cohen said answering such questions was all but impossible because of the difficulties associated with diagnosing mitochondrial disorders.

"There is no test available right now to screen for mitochondrial disorders that is anywhere near sensitive or specific," Dr. Cohen said, "so the whole concept of screening prior to vaccination is a fantasy."

Still, a discussion about the possible links between mitochondrial disorders, autism and vaccination is needed, said Dr. Insel of the mental health institute.

"We're talking about two things we don't understand very well, mitochondrial disorder and autism, and putting them together," Dr. Insel said. "It's like two drunks holding each other up."

The meeting, in Indianapolis, is being sponsored by the mental health institute, the Food and Drug Administration, the C.D.C., the National Institutes of Health, the Department of Health and Human Services and the National Institute of Neurological Disorders and Stroke.

Whatever the result of the meeting, Charles A. Mohan Jr., executive director of the United Mitochondrial Disease Foundation, a nonprofit research and educational group, said he was delighted by the attention being brought to the disease. Mr. Mohan's daughter died of the disease when she was 15 after years of worsening seizures.

"We're hoping the result of this meeting is at least the realization that more money is needed for research to connect these dots," Mr. Mohan said.