

# Changing Phenotype of Type 1 Diabetes Makes Diagnosis Harder

BY KATE JOHNSON  
Montreal Bureau

COPENHAGEN — Type 1 diabetes, traditionally considered a disease of wasting, is now frequently diagnosed in children who are overweight, according to a new study. That means determining which pediatric patient has type 1 diabetes and which has type 2 is getting harder, according to Dr. Ingrid M. Libman, of the department of pediatric endocrinology at the University of Pittsburgh.

"The problem now is that the lines are blurred between what we thought was clearly defined as type 1 and 2 diabetes," said Dr. Libman in an interview. "The distinction can no longer be made based on phenotype."

Data she presented at the annual meeting of the European Association for the Study of Diabetes showed that over 23 years of observation (1979-2002), the overall prevalence of overweight and obesity in children with newly diagnosed insulin-treated diabetes (traditionally considered type 1 disease) has more than tripled—doubling in African American children (from 30% to 62%) and quadrupling in white children (from 6% to 26%).

"In some cases we now have

no clear way of distinguishing what kind of diabetes someone has based on how they look," she said, adding that acanthosis nigricans, traditionally associated with type 2 diabetes, is now commonly found in overweight patients with type 1 disease as well.

Subjects diagnosed in period I (1979-1989) and period II (1990-98) were tested for beta-

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cell autoimmunity. In those with autoimmune positivity (known as diabetes type 1a), there was a similar increase in the prevalence of obesity between periods I and II: 6% to 21% among whites and 22% to 43% among African Americans. For period III (1999-2002), autoimmune antibodies are still being measured, she said. Autoimmune-negative subjects in the study may have had type 2 diabetes or type 1b—an insulin-dependent, nonautoimmune form of the disorder.

Dr. Libman said physicians might frequently face a new presentation of diabetes in which patients may actually have a confusing combination of charac-

teristics.

"What we argue is that some kids may have characteristics of both type 1 and type 2 disease processes going on. If they are autoimmune positive, they have type 1a diabetes; however, if they are also overweight and have acanthosis nigricans, you could argue that they may also be insulin resistant."

While establishing a clear diagnosis may often seem essential to physicians, Dr. Libman said that in the end, it might not be so important.

"If the child is really sick, does it matter if they have type 1 or 2?

You will need to treat them with insulin. If they are overweight, not sick, and diagnosed randomly, you can likely control their blood sugars with lifestyle and metformin. If their antibodies come back positive, it doesn't mean you should start insulin—but you may need to monitor them more carefully and you may have a lower threshold for starting it."

Overweight in children may not only make them more susceptible to developing type 2 disease, but in those who are genetically susceptible, it may also increase their risk or accelerate the development of type 1 disease—the concept of "double diabetes," she said. ■

# Researchers Advocate for U.N. Diabetes Resolution

BY KATE JOHNSON  
Montreal Bureau

COPENHAGEN — The European Association for the Study of Diabetes voiced its support for obtaining a United Nations resolution on diabetes aimed at preventing, slowing the progression of, and ultimately identifying a cure for the disease.

"Diabetes is killing more people on this planet than infectious diseases—including HIV/AIDS, infant mortality, and deaths from hunger put together. Politicians have to act now," said Dr. Jørn Nerup of the University of Copenhagen and the Steno Diabetes Center in Gentofte, Denmark, at the annual meeting of the European Association for the Study of Diabetes (EASD). Dr. Nerup is a spokesperson for EASD.

The "Unite for Diabetes" campaign for a U.N. resolution on diabetes was launched last February by the International Diabetes Federation (IDF), which represents 192 national diabetes associations worldwide. The IDF aims to get the resolution passed by the U.N. General Assembly by the end of 2007.

Among other things, the resolution would stipulate that all U.N. member countries implement national policies for the care and prevention of diabetes, as well as fund research on the disease. ■

"The global health catastrophe [of diabetes] is not coming; it's here," said Dr. Martin Silink of the Institute of Endocrinology and Diabetes in Westmead, Australia, and president-elect of the IDF.

He said it is estimated that there will be 380 million people worldwide with diabetes by the year 2025, with a "crippling" impact on health care and the economy.

No major European countries or the United States have yet formally backed the IDF campaign, but all have been approached and are considering adding their support, Dr. Silink said. He added that he expects the European countries to come up with a general European Union position. "I am aware this discussion is going on," he said in an interview. In total, 30 countries have expressed their "high level," if not formal, support, he noted, including formal commitments from Slovenia, Uzbekistan, Ukraine, and Georgia. "The more developed a country's health care system, the more carefully they will read and consider the wording," Dr. Silink said.

"Lots of cases of diabetes can be prevented; complications from diabetes can often be prevented; and, even if there are complications, they can be effectively treated early. The tools are there, but the mind-set is not," Dr. Nerup said. ■

# Focus Groups Reveal Uneasiness With Diabetes Educators' Role

BY BETSY BATES  
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LOS ANGELES — Physicians, patients with diabetes, and diabetes educators expressed reservations about the current state of diabetes education in a series of focus groups sponsored by the American Association of Diabetes Educators and presented at the organization's annual meeting.

Preliminary findings suggest that there are significant gaps in awareness of diabetes education resources and an underlying uneasiness about the role of educators in overall diabetes care, reported Mark Peyrot, Ph.D., professor of sociology at Loyola College in Baltimore.

The six focus groups each consisted of about 15 members of a particular constituency—physicians who care for patients with diabetes, diabetes educators, or patients.

During teleconference calls, participants discussed a wide range of issues involving the general topic of diabetes education. Results will be used to devise an Internet survey to better capture positive and negative impressions of diabetes education

and direct future resources in improving the field, explained Dr. Peyrot.

Early focus group findings suggest there is work to be done in improving access to, awareness of, usefulness of, and funding for diabetes education programs offered through hospitals, health care groups, and communities.

"A few bad experiences will turn you off," said one physician during a focus group session.

Physicians suggested they would like to see diabetes education programs that personalize messages for their patients rather than rely on textbooklike, pedantic lessons. They want an easier referral process, better feedback from diabetes educators, and an assurance that treatment decisions will be left to them.

One physician also expressed the concern that diabetes educators may try to "steal patients." Others also feared that patients' allegiances might be torn if they were taking advice from two different health care providers.

On a positive note, physicians said they appreciated diabetes education programs based on scientifically reliable, authorita-

tive sources that offered practical strategies for dealing with everyday issues of diabetes control.

Several diabetes educators noted that they had customized their education programs based on physician requests: for example, by taking patients to the grocery store to help them learn how to make good nutritional choices.

Diabetes educators universally said they felt economic pressure to justify their positions. They bemoaned the lack of reasonable reimbursement for their services and a general dearth of awareness regarding the benefits they can provide to patients with diabetes.

They perceived that "need [for their services] was much higher than actual demand," said Dr. Peyrot. Use of services seemed to vary greatly; some educators reported 3- to 6-month waiting lists for their services, whereas others had "wide open" appointment books.

Many diabetes educators believed that physicians did not sufficiently emphasize the importance of diabetes education to their patients: for example, by failing to ask whether patients had actually attended

sessions they had prescribed.

Physicians "didn't give the impression it was critical," said Dr. Peyrot, in summarizing the statements of diabetes educators.

Patients in separate focus groups displayed little understanding of diabetes education, in many cases failing to even recall whether they had attended educational sessions on diet, blood glucose monitoring, or medication management.

Exposure to diabetes education was broad, ranging from none to 40 hours. Patients had mixed impressions of its effectiveness, saying that in some cases, education sessions were too long, presented too much information at once, focused too much on negative messages, and could be overwhelming. On the other hand, they said they liked assistance with dealing with any type of technologic device, such as insulin pumps, and appreciated dietary advice and take-home materials they could study later.

Patients who had not sought out education sometimes volunteered that they did not need it, saying they learned whatever they needed to know from sources such as the Internet or family members with diabetes. ■