IDF Urges Renewed Focus On Prevention of Diabetes

BY HANNAH BROWN
Contributing Writer

BARCELONA — Physicians and other health care workers should use clinical consultations to identify all individuals at high risk of developing type 2 diabetes, according to an International Diabetes Federation (IDF) consensus statement released at an international congress on prediabetes and metabolic syndrome.

Speaking at a press conference to mark the report's launch, Dr. Paul Zimmet, director of the International Diabetes Institute, Melbourne, stressed that renewed advocacy is needed to combat worldwide projected increases in diabetes, which he labeled "the largest and fastest-growing disease epidemic in history."

"Since the 1980s, the number of people with diabetes has grown threefold. … With 246 million people with diabetes now and 380 million people with diabetes [predicted] by 2025, diabetes is set to bankrupt national economies," warned Dr. Zimmet. And if numbers of people with impaired glucose tolerance, or prediabetes, are added to that sum, the at-risk population swells to 800 million by 2025, he said.

The IDF consensus recommends a two-pronged approach to prevention aimed at halting the rise in diabetes and associated conditions, targeting both at-risk individuals and the whole population. Central to the high-risk approach is to identify the target group, explained Dr. George Alberti, senior research fellow at Imperial College, London, and coauthor of the IDF statement. However, he said, this is "difficult because so many people won't have any obvious signs."

The one external feature that does indicate high risk of diabetes is waist measurement. "The easiest way for most people is to look and see if they can see their feet," Dr. Alberti said. The IDF suggests that this method should be the main one used by resource-poor countries to identify their at-risk populations, but physicians can also use validated questionnaires to assess risk status.

Once suspicion of risk is identified, explained Dr. Alberti, physicians should then measure blood glucose in their patients to identify existing undiagnosed metabolic syndrome or diabetes. This group can then be targeted with interventions to induce lifestyle changes and increase weight loss. "It is easy. Eat less and walk more," Dr. Alberti said.

Population-wide efforts need to focus on national plans, he added. Governments must support the idea of healthy lifestyle education in schools, encouraging people to walk around more, and leaning on the food industry to act responsibly when it comes to advertising its products. However, he said, nongovernmental organizations and charities have an important role to play in raising awareness of the issue.

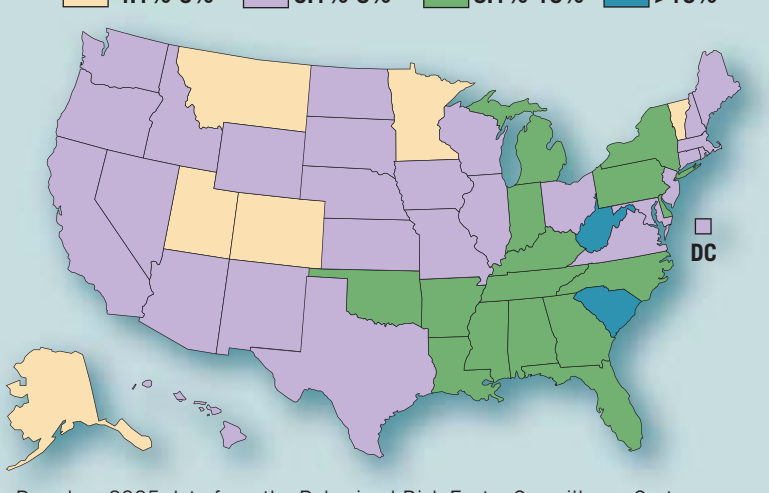
"It is about getting the [nongovernmental organizations] and the diabetes organizations to keep prodding away at the government. The key is repetitive actions," he said. "There is no point in saying something once to politicians; you have to say it over and over again."

The IDF calls for all countries to adopt national diabetes prevention plans that bring together strategies for prevention, secondary prevention, and treatment of diabetes as associated disorders. Stressing that healthy environments are key to achieving population-wide behavior change, Dr. Jean-Claude Mbanya, president-elect of the IDF and vice dean of the faculty of medicine and biomedical sciences, University of Yaounde, Cameroon, said a key feature of these plans should be collaboration between all government sectors, including health, education, sports, and agriculture.

Avi Friedman, Ph.D., professor of architecture at McGill University, Montreal, who supports the IDF call for a broad view on health improvement, said, "Inadvertently, our own government authorities may have contributed to this epidemic by allowing developers to create urban social problems. … Urban sprawls are part and parcel of new developments without proper attention to building design, sidewalks, bike paths, public transport corridors, playing fields, and friendly exercise areas that are essential and need to be accessible to people who want to maintain a healthy lifestyle." ■

DATA WATCH

Prevalence of Diabetes Highest in the South



Note: Based on 2005 data from the Behavioral Risk Factor Surveillance System.
Source: Centers for Disease Control and Prevention

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Islet Transplant Results Suggest Change in Procedure Needed

BY TIMOTHY F. KIRN
Sacramento Bureau

SEATTLE — Since islet allograft transplantation for diabetes is still not very successful over the long term, it may be time to reconsider using the liver as the location for infusing the transplant cells, Dr. R. Paul Robertson said at the annual meeting of the American Association of Clinical Endocrinologists.

"They should be getting out of the liver," he said. "There is just no reason to attack the liver like that."

When the group from the University of Alberta, Edmonton, first published its islet transplantation results in 2000, researchers reported good success with the liver as the transplantation site; 100% of the patients were insulin free out to 1 year post procedure, said Dr. Robertson, a professor of medicine and pharmacology at the University of Washington, Seattle, who has done metabolic studies on transplant recipients.

But now with reports of patients out to 5 years, it seems that majority of the Edmonton group's transplantations did not last. The median duration of function of an islet transplant appears to be about 15 months. Of 65 patients reported on in 2005 by the group, 15% had failed, 77% had returned to insulin therapy, and only 8% remained completely insulin free, Dr. Robertson noted (Diabetes 2005;54:2060-9).

Moreover, while centers such as the University of Miami, the University of Minnesota, and the University of Pennsylvania have done successful islet transplants, at least three other places have had no success, including the University of Washington, Dr. Robertson said.

The problem may be the liver, he said. The liver is the repository for the transplant drugs used to prevent rejection—which may be toxic to the islets—as well as for all the other environmental toxins.

In addition, use of the liver was thought to have the advantage of being physiologically appropriate, because the pancreas dumps insulin through the liver. It also was considered a safe procedure, because the cells are simply infused into the hepatic portal vein, where they are then washed into the organ.

But canine experiments suggest that the islets may not function optimally in the liver. And there have been serious adverse events reported with the procedure. According to one report, 41% of patients transplanted in Edmonton had complications that required hospitalization, Dr. Robertson said.

Other experiments have investigated infusing the islets into the intraperitoneal space, subcutaneously, and next to the kidney. "We need to be patient and support this kind of research," Dr. Robertson said. ■

Second Phase of READ-2 Macular Edema Study to Begin

The Juvenile Diabetes Research Foundation is currently enrolling patients to participate in the second phase of the Ranibizumab for Edema of the Macula in Diabetes (READ-2) study.

Supported by Genentech Inc. and the nonprofit U.S.-based JDRF, the study is designed to test the long-term safety and effectiveness of intraocular injections of ranibizumab in patients with diabetic macular edema. In this phase II study, researchers also would like to compare the results of ranibizumab injection with laser photocoagulation, the standard treatment of diabetic macular edema, according to a statement issued by the foundation.

The researchers want to enroll 126 participants in this multicenter clinical trial, age 18 and older with macular edema as a result of type 1 or type 2 diabetes. The study will consist of a 2-week screening period, a 6-month treatment period, and an 18-month follow-up and treatment period.

In a phase I study, Dr. Quan Dong Nguyen, Dr. Peter A. Campochiaro, and their colleagues found that ranibizumab was successful in improving visual acuity at 7 months. There were no adverse events related to ranibizumab, although some patients did experience redness on the surface of the eye at the injection site that lasted up to 72 hours. The cause of the redness was more likely caused by the injection and not by the drug itself, the investigators said.

Genentech manufactures ranibizumab, which is used to treat patients with wet age-related macular degeneration. The drug blocks a growth factor thought to be involved in the formation of abnormal blood vessels that cause the loss of vision in diabetic macular edema patients.

Ranibizumab was approved by the Food and Drug Administration in June 2006.

The phase I trial, which began in December 2006, took place at the Wilmer Eye Institute at Johns Hopkins University, Baltimore. Phase II will take place at the Phoenix-based Retinal Consultants of Arizona and other sites. The expected completion date of the phase II study is January 2009.

For additional study and participation information, visit www.clinicaltrials.gov/ct/show/NCT00407381?order=14.

—Lorinda Bullock