

Asians at Increased Risk for Gestational Diabetes

BY HEIDI SPLETE

Women of Korean, Chinese, and Filipino descent are more than twice as likely to develop gestational diabetes as Caucasian or African American women, according to a data analysis of more than 16,000 pregnant women in Hawaii published in the *Ethnicity and Disease* journal.

Gestational diabetes occurs in 4%-8% of all pregnant women, wrote Kathryn L. Pedula and her colleagues. Data from a pair of recent U.S. studies suggested that Asians have a higher prevalence of gestational diabetes mellitus (GDM) than do other ethnicities, but differences among subcategories of Asian populations have not been well studied.

Ms. Pedula and her associates at the Center for Health Research, Kaiser Permanente Northwest in Portland, Ore., reviewed 10 years' worth of data from 22,110 pregnancies in 16,757 women. Hawaii was chosen for the study because of its ethnically diverse population, the researchers said (*Ethn. Dis.* 2009;19:414-9).

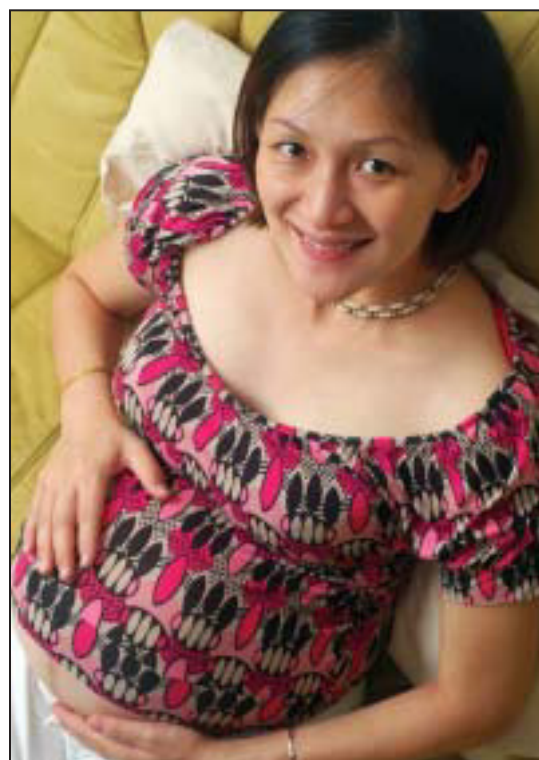
A total of 353 women had pre-existing diabetes. The remaining women underwent screening for GDM between 24 and 28 weeks of pregnancy, using the 50-

gram, 1-hour glucose challenge test (GCT). Women with plasma glucose levels greater than 200 mg/dL on the GCT were deemed to have GDM and were not tested further. The remaining women with a GCT value greater than 140 mg/dL underwent the 100-gram, 3-hour oral glucose tolerance test.

Overall, 20.9% of the women had a positive GCT (plasma glucose at least 140 mg/dL). Approximately 4% had GDM based on the National Diabetes Data Group (NDDG) criteria, and 7% had GDM based on the Carpenter and Coustan (C&C) criteria.

After adjusting for age, the investigators found that 10% of the Korean women had GDM based on the C&C criteria, followed by 9.8% of Chinese women and 8.3% among Filipino women. The prevalence was lowest among African Americans (3.3%) and Caucasians (4.2%).

Based on the NDDG criteria, Puerto Rican women had the highest age-adjusted prevalence of GDM (7.4%), but this was barely higher than the average when C&C criteria were applied. However, Korean, Filipino, and Chinese women had the next highest prevalences of GDM, at 6.4%, 5.8%, and 5.6%, respectively, based on the NDDG criteria.



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Using two sets of criteria, investigators found a high prevalence of GDM in Asian women.

Again, Caucasians and African Americans had the lowest prevalence of GDM, at 2.5% and 2.2%, respectively.

The study included women aged 13-39

years who gave birth in Hawaii between 1995 and 2003. The Asian population was divided into five subgroups: Korean, Chinese, Japanese, Vietnamese, and Filipino. Additional groups included Samoan, Puerto Rican, Native Hawaiian, Caucasian, African American, Native American, other Hispanic, and other Pacific Islander.

The results suggest that the risks for developing GDM may vary greatly depending on specific ethnic background.

"These findings point to the need for further research along several avenues, such as maternal-child outcome differences and perhaps ethnic-specific guidelines for GDM diagnosis," the researchers said.

Disclosures: The study was funded by the American

Diabetes Association. Coauthor Dr. Teresa A. Hillier was funded by a 1-year ADA-European Association for the Study of Diabetes Trans-Atlantic Fellowship.

Societies Team Up for Diabetic Limb Salvage

BY MARK S. LESNEY

WASHINGTON — A collaboration between the Society for Vascular Surgeons and the American Podiatric Medical Association is planned to improve limb maintenance in the face of diabetic complications.

Dr. Anton Sidawy, president of SVS, and Dr. Ronald D. Jenson, president of APMA, said their members would work together to identify clinical issues relating to critical limb ischemia in an attempt to find solutions that would benefit patients.

The societies will develop joint postgraduate courses, publish diabetic foot articles in their journals, conduct joint public awareness programs, and pursue other avenues of collaboration.

In addition, the SVS and APMA will collaborate on developing practice guidelines and reporting standards for the care of diabetic foot, according to a joint announcement made at a diabetic limb meeting sponsored by Georgetown

University Hospital. "Early on, vascular surgeons realized that fixing occlusive arterial disease is not enough to heal and maintain the integrity of the foot skin envelope in diabetics. Other specialties, in particular podiatry, have a lot to offer toward the goals of limb maintenance and salvage in this group of patients. This collaboration between SVS and APMA aims to formalize this clinical partnership and popularize the team concept for better care of the diabetic patient," said Dr. Sidawy, a vascular surgeon based in Washington.

Dr. Jenson, a podiatrist in Modesto, Calif., echoed this optimism: "The growing relationship between the APMA and the SVS has created enormous opportunities for the podiatric and the vascular communities to come together in the best interest of patient care."

"What we have found is that teams trump technology," added Dr. David C. Armstrong, a surgeon at the University of Arizona, Tucson, and an APMA member. ■

Height Is a Risk Factor for Amputations

BY BRUCE JANCIN

ORLANDO — Taller patients with type 2 diabetes are at greater risk for lower-limb amputations, according to a secondary analysis from the FIELD Study.

In FIELD (Fenofibrate Intervention and Event Lowering in Diabetes), greater height was an independent predictor of amputation during 5 years of prospective follow-up. For every 10 cm of height beyond that of patients in the lowest tertile, the risk of an amputation rose by 60%, Dr. Kushwin Rajamani reported at the annual scientific sessions of the American Heart Association.

The study randomized 9,795 type 2 diabetes patients aged 50-75 years in double-blind fashion to 200 mg/day of micronized fenofibrate or placebo. After 5 years, the fenofibrate treatment failed to lower the combined primary end point of nonfatal MI or death due to coronary heart disease, compared with placebo. During those 5 years of follow-up, 115 patients had one or more nontraumatic lower-limb amputation due to diabetes.

The finding that height was an independent predictor of amputation confirms an earlier report from a large observational study conducted in Taiwan, noted Dr. Rajamani of National Health and

Medical Research Council Clinical Trials Centre at the University of Sydney.

The Taiwanese cross-sectional study involved structured telephone interviews with 93,116 type 1 or 2 diabetes patients. Every 10-cm increment in height was independently associated with an adjusted 16% increase in prevalent lower-limb amputation. And in the subgroup comprising the 9,295 participants for whom data on fasting plasma glucose and lipid levels were available for inclusion in the statistical modeling adjustment, every 10-cm increase in height was associated with a 79% increase in prevalent amputation (*CMAJ* 2006;174:319-23).

The explanation for this now-confirmed link between height and amputation risk in diabetic patients is unclear, Dr. Rajamani said. Although it is known that taller diabetic patients are more likely to have peripheral sensory loss than are shorter patients and hence are at increased risk of lower-extremity ulcers, in FIELD, patient height was predictive of increased amputation risk independent of whether diabetic neuropathy was present.

Neuropathy also was an independent predictor of on-study amputations in FIELD, with an associated 2.7-fold risk. The oth-

er main predictors were previous nontraumatic amputation or diabetic skin ulcer, with a 5.6-fold risk; peripheral vascular disease, with a 2.5-fold risk, and age, with a 70% increase in risk for every 10 years older than 50.

Of note, lipid variables were not predictive of amputation risk. However, in another recent secondary analysis from FIELD, Dr. Rajamani and coworkers found that fenofibrate therapy was associated with a significant 36% reduction in the relative risk of a first-ever amputation and a 47% reduction in the risk of below-the-ankle amputations without known large-vessel atherosclerotic disease. These findings suggest that the protective effect against amputation documented for fenofibrate in FIELD involves nonlipid mechanisms (*Lancet* 2009;373:1780-8).

The FIELD and Taiwanese studies suggest there is particular value in aggressively targeting taller diabetic patients for closer monitoring, Dr. Rajamani said.

Diabetes is the No. 1 cause of nontraumatic amputations in the developed world.

The FIELD Study was funded by Laboratoires Fournier SA and the National Health and Medical Research Council of Australia. Dr. Rajamani indicated he had no relevant financial conflicts. ■