Koreans, Chinese at High Risk for GDM

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.

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 (Ethn. Dis. 2009;19:414-9).

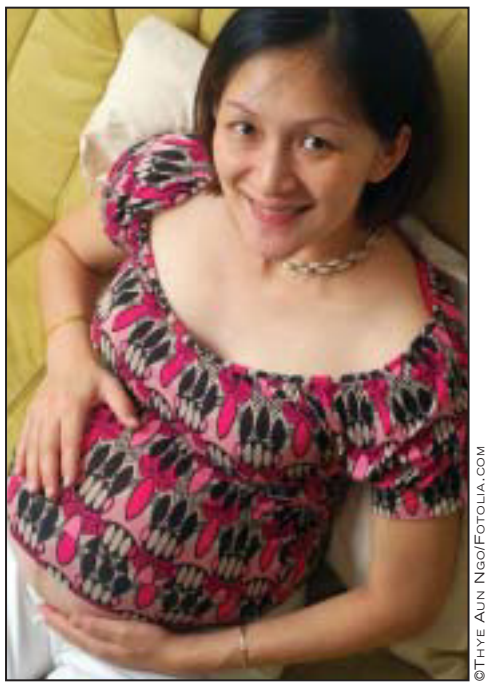
A total of 353 women had pre-existing diabetes. The remaining women underwent screening for GDM between 24 and 28 weeks of pregnancy, using the 50-gram, 1-hour glucose challenge test (GCT). Women with plasma glucose levels greater than 200 mg/dL on the GCT were deemed to have GDM and were not tested 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. 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.



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Chinese women had a high gestational diabetes prevalence at 5.6%.

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. ■

VITALS

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.

DRUGS, PREGNANCY, AND LACTATION

Fetal Safety of Paroxetine

For at least a decade after approval in the United States in 1992, the selective serotonin reuptake inhibitor (SSRI) paroxetine (Paxil) was believed to be safe during pregnancy, based on data from studies of a small number of patients. The studies included one of women from teratogen information services in North America, including Motherisk, which did not find an increase in major malformations among 267 women who took paroxetine, fluvoxamine, or sertraline during pregnancy compared with controls (JAMA 1998;279:609-10).

Over the next several years, more studies on pregnancy outcomes after in utero exposure to paroxetine were reported, with no dramatically different conclusions. In 2005, however, the manufacturer came to the Food and Drug Administration with data from a registry that appeared to suggest an association between prenatal exposure to paroxetine and a higher-than-expected rate of congenital cardiac malformations.

BY GIDEON KOREN, M.D.

Considering the common occurrence of depression in pregnancy and the potential for the dire consequences of untreated depression during pregnancy, it is critical for clinicians to examine the emerging evidence closely.

When considering the reproductive safety data on paroxetine specifically, the earlier data were from teratogen information services, where pregnant women who contacted the services were followed prospectively for birth outcomes. These were relatively small studies lacking the statistical power to show small increases in malformation rates.

More recent studies using administrative databases, linking claims information on drugs prescribed during pregnancy to records of pregnancy outcomes, provide much larger numbers of patients, but with the cost of poorer quality of data, as discussed here.

With these types of studies that looked at outcomes associated with first-trimester exposure to paroxetine and to other SSRIs, we began to see some different and contradictory results: Some studies found an association between paroxetine exposure and an increased risk of cardiac malformations, in particular ventricular septal defects (VSD). But others did not find this association, and in fact suggested an increased risk for cardiac malformations with other SSRIs, such as sertraline or citalopram. There have also been several meta-analyses, again with mixed results. Therefore, the picture is very confusing. But there is consensus on one point: If there is a risk, it is very small.

I am among those researchers who have doubts about the veracity of the signals generated from administrative databases, which I believe suffer from major sources of uncontrolled bias, such as ascertainment bias. Consider the following example: While all SSRIs are used to treat depression, paroxetine has been used preferentially to also treat anxiety disorder. There are studies showing that the children of women with anxiety are much more likely to be tested for malformations, and hence, more likely to find the most common of them all—the ventricular septal defect.

In a meta-analysis of literature between 1985 and 2006, my associates and I determined that first-trimester use of paroxetine was associated with a slight increase in cardiac malformations. The use of ultrasound during pregnancy, however, was 30% higher among the women who were on antidepressants during pregnancy, and the babies of women who were on SSRIs had about twice as many echocardiograms during their first year of life than the babies of women who were not on an SSRI during pregnancy. In addition, about four times as many women on paroxetine were using it to treat anxiety than were women on other SSRIs (Clin. Ther. 2007;29:918-26). Until we settle this issue of ascertainment bias in this situation, we cannot be certain that in utero exposure to paroxetine is associated with an increased risk of cardiac malformations.

What also needs to be considered is that VSDs are the most common congenital malformation in nature and most VSDs close spontaneously, so when children in the control groups are examined later, because their parents are less concerned, the malformation may not be detected.

For me, the most convincing evidence that paroxetine does not increase the risk of cardiovascular malformations comes from an international study of infants exposed to paroxetine in the first trimester—cases that had been prospectively followed at teratogen information services around the world, including Motherisk. The cardiovascular malformation rate among the 1,174 infants exposed to paroxetine in utero and among an unexposed group of infants was the same—0.7%—approaching the rate of 1% in the general population (Am. J. Psychiatry 2008;165:749-52). This prospective study obviated the uncontrolled biases of administrative databases.

Women who may be treated with paroxetine during pregnancy should know that the possible risk associated with paroxetine is controversial and that there is no question they should be treated if they need treatment. In addition, cardiovascular malformations during pregnancy can be ruled out with appropriate testing. At Motherisk, we are following women who have taken paroxetine during pregnancy, and we point out to them and to their treating physicians that untreated depression carries with it serious maternal and fetal risks, including higher rates of life-threatening postpartum depression.

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