Early Treatment Aids Gravidas With Prior GDM

BY MIRIAM E. TUCKER
Senior Writer

AMSTERDAM — Seeing and presumptively treating all women with previous gestational diabetes mellitus early in their subsequent pregnancies—without rescreening them—is likely to improve maternal and fetal outcomes, Dr. Christina S. Cotzias said at the annual meeting of the European Association for the Study of Diabetes.

Recurrence rates of GDM in subsequent pregnancies among women who had the condition in a previous pregnancy range from about 30% to 70%, depending on the population studied. In general, the heavier and less Caucasian the population, the greater the GDM recurrence rate. And among women who do have GDM recurrence, some studies have suggested that glucose intolerance may occur earlier in subsequent pregnancies than in the initial one, said Dr. Cotzias of the obstetrics/gynecology department at West Middlesex University Hospital, Isleworth, England.

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DR. COTZIAS

"In a heavy, multiethnic, insulin-resistant population, seeing all women with a history of GDM early in their next pregnancy to start treatment for GDM seems to optimize fetomaternal outcomes. To leave this population until screening is performed could be detrimental for both mother and baby," she said.

Middlesex hospital's obstetric unit serves a multiethnic community with a high Asian prevalence. More than 70% of the center's GDM population is non-Caucasian. All pregnant women are asked if they had GDM in a prior pregnancy, and if so, they are immediately referred to a combined obstetric/endocrine clinic, where they receive education and counseling about GDM and its implications, diet and exercise, and self blood glucose monitoring.

Primigravidas and women who do not report having had GDM in a previous pregnancy are selectively screened for GDM based on a long list of risk factors, including family history of diabetes, maternal obesity (body mass index greater than 30 kg/m^2), poor obstetric history (unexplained stillbirth, congenital abnormalities, or neonatal death), previous macrosomic infant (greater than 4.5 kg), non-Caucasian ethnicity, and maternal age greater than 30 years.

Women identified with risk factors are screened at 28 weeks with a 50-g oral glucose challenge, and if the result is 7.8 mmol/L (140 mg/dL) or greater, a formal 75-g oral glucose tolerance test is done. If the fasting glucose at the time of the test is above 6 mmol/L (108 mg/dL) or if the 2-hour value is greater than 9 mmol/L (162 mg/dL), the patient then receives the GDM education and counseling. Insulin therapy is initiated if the patient's glucose values exceed 6 mmol/L (108 mg/dL) fasting and 8 mmol/L (144 mg/dL) at 2 hours postprandial with lifestyle modification alone. Women who receive insulin therapy are delivered between 38-40 weeks' gestation, Dr. Cotzias noted.

A retrospective case note analysis was performed for 419 women who were treated for GDM at Middlesex Hospital during 2000-2005, of whom 123 (29%) had GDM in a prior pregnancy and 296 (71%) did not. Those with previous GDM were significantly older (median age 34 vs. 32 years), and heavier (BMI 29 vs. 27), but there were no differences in ethnicity between the groups, both of which were approximately one-half Asian, one-quarter white, and about one-fifth black; the re-

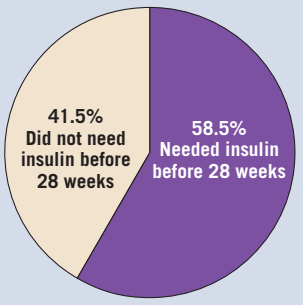
mainder were other ethnicities.

Hemoglobin A_{1c} levels were significantly higher among the women with previous GDM: 27% were at or above 7%, compared with just 15% among those newly diagnosed with GDM. The women with previous GDM were seen in the obstetric/endocrine clinic sooner in their pregnancies than were those without the history (median 16 vs. 32 weeks). They were much more likely to require insulin therapy (67% vs. 47%), and to be started on insulin sooner (25 vs. 34 weeks' gestation).

Importantly, of the 82 women in the previous GDM group who required insulin, nearly two-thirds (48, or 59%) needed it prior to 28 weeks' gestation, the time of routine GDM screening. "If we waited to screen those women, we would miss nearly 60% of those who need insulin before 28 weeks," Dr. Cotzias noted.

Exactly half of each group had spontaneous vaginal delivery; cesarean section rates also did not differ significantly in the two groups (44% of those with previous GDM and 40% of those without). There were no significant differences between the two groups in any neonatal outcome. Of the women who came back for follow-up after delivery, 23% of 66 with previous GDM and 22% of the 188 without—an insignificant difference—had abnormal glucose tolerance test results. "I extrapolate the findings to suggest that if I left these women until 28 weeks' gestation and then started [treatment], I would have missed the boat and had worse outcomes. I can't prove it, but that's what the data suggest," Dr. Cotzias said. ■

Pregnant Women With Previous Gestational Diabetes Who Needed Insulin Therapy



Notes: Based on data for 82 pregnant women; 28 weeks is the time of routine screening for gestational diabetes.
Source: Dr. Cotzias

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