Treating Mild Gestational Diabetes Cuts Risks

BY DOUG BRUNK
San Diego Bureau

SAN DIEGO — Treatment of mild gestational diabetes did not reduce the frequency of several commonly reported morbidities associated with diabetic pregnancy, results from a large multicenter randomized trial demonstrated.

However, treatment did lower birth weight and resulted in a 50% reduction in macrosomia, as well as lower neonatal fat mass, rates of shoulder dystocia, cesarean delivery, preeclampsia, and gestational hypertension, Dr. Mark B. Landon said at the annual meeting of the Society for Maternal-Fetal Medicine.

The incidence of gestational diabetes is rising in the United States, said Dr. Landon, professor of obstetrics and gynecology at the Ohio State University, Columbus.

Based largely on results of retrospective single-center studies to date, there has been "widespread acceptance of screening and treatment of gestational diabetes by professional organizations with little evidence of demonstrable benefit." However, in 2003 and in 2008 the U.S. Preventive Services Task Force issued statements concluding that there is insufficient evidence to determine if a health benefit to the treatment of mild gestational diabetes exists.

The maternal-fetal medicine units network of the Eunice Kennedy Shriver National Institute of Child and Health and Human Development conducted a randomized trial to determine if treatment of mild gestational diabetes reduced perinatal morbidity.

For the study, 958 women with a singleton gestation and who met criteria for mild gestational diabetes (defined as a fasting value of less than 95 mg/dL on a blinded 3-hour oral glucose tolerance test) were allocated to one of two groups. The 485 women in the treatment group received formal nutrition counseling, instruction on self-monitoring of blood glucose, and insulin administration, if necessary. The 473 women in the control group received standard routine obstetric care, and clinicians and study participants were unaware of their glucose tolerance test results.

There has been widespread acceptance of screening and treatment with little evidence of benefit.

DR. LANDON

The primary end point was a composite outcome that consisted of perinatal mortality; neonatal hypoglycemia defined as a value less than 35 mg/dL during the first 2 hours of life without feeding; a serum bilirubin greater than 8 mg/dL between 16 and 36 hours of life, hyperinsulinemia as reflected by a cord blood C-peptide greater than the 95th percentile, or birth trauma.

Dr. Landon reported that the average age of the study participants was 29 years. There were no differences between the groups in the frequency of composite primary neonatal outcome (32% in the treatment group vs. 37% in the control group).

Among secondary outcomes, the researchers observed a significant difference between the treatment and control groups in terms of mean birth weight (3,302 g vs. 3,408 g, respectively), fetal fat mass (427 g vs. 464 g), and the frequency of infants weighing greater than 4,000 g at birth (6% vs. 14%).

There were no differences between the two groups in terms of NICU admission, preterm delivery, respiratory distress syndrome, or need for intravenous glucose treatment.

Women in the treatment group had significantly lower overall rates of cesarean delivery (27% vs. 34%) and rates of cesarean corrected for abnormal presentation and prior cesarean (13% vs. 20%). The rate of shoulder dystocia also was reduced with treatment (2% vs. 4%) as was the rate of preeclampsia and gestational hypertension as a composite (9% vs. 14%).

Dr. Landon had no conflicts to disclose. ■