

# Overweight Women Risk Postterm Delivery

BY BETSY BATES

**W**omen who are overweight or obese at the time of conception are at increased risk for a postterm delivery, but that risk can be reduced if they restrict their pregnancy weight gain to a normal range, according to findings from a large database study.

Birth injury, meconium aspiration, cesarean delivery, and other complications have been linked to delivery beyond term, explained Dr. Donna R. Halloran, a St. Louis University pediatrician who presented the study results at the Southern regional meeting of the American Federation for Medical Research in New Orleans.

Researchers examined birth records linked to hospital discharge data for term singleton infants born at 42 weeks' gestation or beyond in Missouri over a 6-year period, collecting data on 8,542 postterm births to mothers without a history of diabetes, chronic hypertension, or a previous cesarean section.

After adjustment for maternal ethnicity, age, education, parity, tobacco history, Medicaid status, and infant sex, the odds of a postterm delivery were substantially elevated among mothers who were overweight (adjusted odds ratio, 1.12) or obese (adjusted odds ratio, 1.19) if they were overweight or obese at the time they became pregnant.

"The obesity epidemic is clearly having a detrimental impact on the health of this country, and pregnant women are no exception," she said in an interview following the meeting. "Unfortunately, most women do not get preconceptional care."

"What we were pleased to find was that even if you are overweight or obese when the pregnancy begins, gaining an appropriate amount of weight (versus too much weight) reduces your risk of certain complications, specifically a postterm delivery."



**Dr. Donna R. Halloran noted that the risk of postterm delivery can be reduced if overweight/obese women restrict their pregnancy weight gain to a normal range.**

Indeed, this potential revision of risk occurred regardless of prepregnancy weight, whereas women gaining more than the recommended weight during pregnancy were 1.24 times more likely to be delivered post term.

Institute of Medicine (IOM) guidelines recommend a pregnancy weight gain of 28-40 pounds if a woman has a BMI of less than 19.8 kg/m<sup>2</sup>, 25-35 pounds for women with BMIs between 19.8 kg/m<sup>2</sup> and 26 kg/m<sup>2</sup>, and 15-25 pounds for a woman with a prepregnancy BMI of 26 kg/m<sup>2</sup> or greater.

Unfortunately, overweight and obese women in the Missouri study were more likely than thinner women to exceed IOM weight guidelines during pregnancy.

More than half of the 91,843 women with prepregnancy BMIs between 25 kg/m<sup>2</sup> and 29.9 kg/m<sup>2</sup> gained more than the amount recommended by the IOM, and 44% of the 31,147 with BMIs greater than 30 kg/m<sup>2</sup>

gained more than 25 pounds during pregnancy.

About 20% of these women were delivered post term if they were nulliparous and nearly 15% if they were multiparous, the study showed.

Physicians can help to reverse the trend of increasing postterm deliveries, even among women who are overweight or obese at conception, said Dr. Halloran.

"There are safe ways to stay healthy and limit weight gain during pregnancy," she pointed to several studies demonstrating the effectiveness of patient education and guidance about healthy eating, exercise, and the risks associated with excessive weight gain.

Ironically, one study conducted at the University of Pittsburgh suggested less may be more with regard to interventions with overweight women, Dr. Halloran said (Int. J. Obes. Relat. Metab. Disord. 2002;26:1494-502).

In this randomized controlled study, increasingly intensive interventions as women gained weight during pregnancy were effective in limiting the percentage of normal-weight women who exceeded IOM weight guidelines, but in overweight women, 32% more exceeded weight guidelines in the intervention group than in the control group.

A simpler series of interventions was found to be effective with both overweight and normal-weight lower-income women in preventing excessive gestational weight gain, in a study from Cornell University (Am. J. Obstet. Gyn. 2004;19:530-6).

The methods used were intentionally designed to be reasonable to implement in clinical practice, and included monitoring of and education about gestational weight gain by health care professionals during prenatal visits and a series of educational mailings sent to patients with healthy eating and exercise tips, a self-monitoring guide, and a monthly motivational newsletter. ■

## Late Preterm Infants Are at Risk for Increased Morbidity

BY DOUG BRUNK

**SAN DIEGO** — The risk of neonatal morbidity, particularly of respiratory distress syndrome, is significantly higher for infants born between 34 and nearly 37 weeks' gestation than for those born at term, an analysis of Centers for Disease Control and Prevention data showed.

"We used to think that the lungs of a neonate are mature by 34 weeks, but we found out that's not always the case," Dr. Amy Flick said in an interview during a poster session at the annual meeting of the Society for Maternal-Fetal Medicine. "If a neonate is [at] 34 weeks' gestational age and is fine, there should be no reason to deliver; you could be risking a bad outcome."

To compare neonatal morbidity for infants born at 34-36.9 weeks' gestation with that for infants born at 37-42 weeks, and to compare pregnancy outcomes for women in the two groups, Dr. Flick and her associates analyzed data from the 2004 CDC national birth registry. The researchers performed a secondary analysis using 2004 National Center for Health Statistics birth statistical files.

Compared with women whose infants were born at term, the women

who bore infants in the late preterm period had significantly higher rates of hypertension (1.8% vs. 0.8%), preeclampsia (7.8% vs. 3.2%), preterm premature rupture of membranes (5.1% vs. 1.2%), and diabetes (5.2% vs. 3.4%), said Dr. Flick of the department of obstetrics and gynecology at the University of Miami.

The risk of neonatal composite morbidity was significantly higher in the late preterm group than in infants born at term (8.9% vs. 3.3%). Logistic regression analysis revealed that infants in the late preterm group were also 5.3 times more likely to have respiratory distress syndrome, 3.7 times more likely to require assisted ventilation, and 1.6 times more likely to have a 5-minute Apgar score of less than 7.

The risks and benefits of even late preterm deliveries must be presented to patients in a comprehensive manner along with input from neonatologists, the investigators concluded. They also called for further studies, including longer follow-up of late preterm infants.

Dr. Flick acknowledged certain limitations of the study, including its retrospective design and the fact that data came from birth certificates. ■

## Diabetes May Double Risk Of Perinatal Depression

BY MARY ANN MOON

**P**regnant women and new mothers with any type of diabetes appear to have twice the risk of developing perinatal depression as do those without diabetes, according to an analysis of Medicaid records.

This finding is consistent with reports showing a doubling of the odds of depression among adults with diabetes in the general population, said Katy Backes Kozhimannil of Harvard Medical School, Boston, and her associates.

The researchers explored a possible link between diabetes and depression in the perinatal period using a Medicaid database on 11,024 low-income women who gave birth in New Jersey between 2004 and 2006. A total of 657 of these women had diabetes, comprising 57 with nongestational diabetes who were taking insulin, 254 with nongestational diabetes who were not taking insulin, 163 with gestational diabetes who were taking insulin, and 183 with gestational diabetes who were not taking insulin.

Both prenatal and postpartum depression were twice as prevalent among the women who had diabetes than among those who did not. This association did

not vary by diabetes classification.

After the data were controlled to account for the effects of age, race, and preterm delivery, women with diabetes still had nearly double the chance (odds ratio 1.9) of developing depression during the perinatal period (15%) than those without diabetes (8%).

"When cesarean delivery was included in the regression models in addition to the other covariates, the results remained virtually unchanged," Ms. Kozhimannil and her colleagues wrote (JAMA 2009;301:842-7).

The findings were the same in the large subset of women who had no indication of depression before delivery. Those with diabetes had nearly twice the risk of developing new onset depression during the postpartum period. Perinatal depression is underdiagnosed and therefore inadequately treated. These findings should "encourage health care providers to pay particular attention to managing the mental health concerns of women with diabetes during pregnancy and the postpartum period," the researchers said.

They noted that the design of this study did not allow them to determine whether the link between diabetes and perinatal depression is causal. ■