Gestational Diabetes Often Not Well Controlled

BY TIMOTHY F. KIRN
Sacramento Bureau

LOS ANGELES — Recent research shows that even relatively minor elevations in blood glucose in pregnancy can have severe effects, and that diabetes in pregnant women is not being controlled as well as it should be, Dr. Jorge H. Mestman said at the Obstetrical and Gynecological Assembly of Southern California.

A short time ago, many experts believed that the problems of diabetes in pregnancy had been addressed and that patients could easily do well. But that is not really so, said Dr. Mestman, director of the University of Southern California Center for Diabetes and Metabolic Diseases in Los Angeles.

One study looked at a Danish registry of pregnant women with diabetes and found that this group of patients had elevated rates of stillbirth and congenital malformation relative to the general population, largely because their blood glucose was not under control (Diabetes Care 2004;27:2819-23). Another recent study, of pregnant women with diabetes in Canada, found much the same thing; moreover, these researchers compared pregnancy outcomes from 1988 to 2002 and saw almost no improvement over that time (Obstet. Gynecol. 2006;108:644-50).

In 1,000 women with gestational diabetes, care and insulin therapy reduced the perinatal complication rate to 1% vs. 4% in the care and education arm.

Two other studies published within the last 2 years have shown that good glucose control could improve those outcomes, Dr. Mestman said.

One of those studies randomly assigned 1,000 women who had gestational diabetes at between 24 weeks' and 33 weeks' gestation to routine diabetes care and education or to routine care and insulin therapy. The researchers found that care and insulin therapy reduced the perinatal complication rate to 1% vs. 4% for care and education (N. Engl. J. Med. 2005;352:2477-86).

The second study looked at women in a gestational diabetes program who delivered at term, and compared the outcomes of those who had good glucose control and suboptimal glucose control. Good glucose control had a very rigorous definition in the study—an average fasting glucose level below 95 mg/dL, an average 1-hour postprandial level below 140 mg/dL, and an average 2-hour postprandial level of below 120 mg/dL.

More than one-third of the women with poor control (1,118 subjects) had poor pregnancy outcomes—which included macrosomia, large-for-gestational-age infants, hypoglycemia, jaundice, or stillbirth—compared with only 24% of those with optimal control (2,030 subjects; Diabetes Care 2007;30:467-70). Treatment of the infants in the intensive care unit and cesarean deliveries was also more common in the poorly controlled women.

"These authors showed that the higher the fasting glucose, the more complications," Dr. Mestman noted.

Although there has been some concern about the use of oral diabetes drugs in pregnancy being associated with congenital abnormalities and neonatal hypoglycemia, Dr. Mestman said he has reviewed the literature and the experience at his own institution, and concluded that the evidence suggests there is no risk and that what differences have been seen are probably result from glycemic control.

Moreover, a study that compared glyburide with insulin treatment in patients with gestational diabetes reported that the two treatments produced equivalent glucose control and improved outcomes equally (N. Engl. J. Med. 2000;343:1134-8).

The advantage of glyburide was that there was much less maternal hypoglycemia, Dr. Mestman added.

Therefore, Dr. Mestman said he uses glyburide in pregnancy. The key to using this oral agent, he said, is knowing which patients respond well and which will need insulin. It has been shown that the patients who are not likely to respond to glyburide well enough are those who have a 1-hour glucose challenge test with a blood glucose level above 200 mg/dL, or who have a fasting glucose level above 95 mg/dL, he said.

"I will tell you that there are very few endocrinologists who are using oral agents during pregnancy; but I am one of them," he said. ■