VBAC Attempts, Failures Linked to Maternal Age

BY JANE SALODOF MACNEIL
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LOS ANGELES — Older women are less likely to attempt vaginal birth after cesarean delivery and more likely to fail when they do, Sindhu K. Srinivas, M.D., said at the annual meeting of the Society for Gynecologic Investigation.

Dr. Srinivas of the University of Pennsylvania, Philadelphia, presented a retrospective study of 25,005 women who were offered the option of vaginal birth after cesarean (VBAC) delivery at 17 community and university hospitals from 1996 to 2000. While 13,706 women (55%) attempted VBAC, 11,299 (45%) had an elective repeat cesarean section.

"We found as women got older, they attempted [VBAC] much less frequently than other women, but they also failed more," Dr. Srinivas said. "Biologically why that is the case, we are not quite sure."

Maternal age did not appear to be associated with risk of complications such as uterine rupture, bowel and bladder injury, blood transfusion, sepsis, and neonatal death. VBAC-related complication rates remained relatively constant in all age groups studied by Dr. Srinivas and her colleagues.

The youngest patients, 922 women ages 15 to 20 years, served as a reference group. A majority of these women—699—chose VBAC.

The largest cohort included 17,415 women, ages 21 to 34 years, 9,801 of whom elected VBAC. Compared with the youngest women, those in this group were about half as likely to attempt VBAC (adjusted odds ratio 0.46) and somewhat more likely to have a failed VBAC (adjusted odds ratio 1.74).

Among 5,574 women ages 35 to 39 years, 2,710 chose VBAC. The likelihood of a woman in this age group electing VBAC was about a third that of the youngest mothers (adjusted odds ratio 0.37). For mothers in their upper 30s, VBAC was more than twice as likely to fail (adjusted odds ratio 2.12).

The oldest group comprised 1,165 women at least 40 years of age. Only 496 in this group opted for VBAC (adjusted odds ratio 0.27), and VBAC was again more than twice as likely to fail (adjusted odds ratio 2.21). All these ratios were highly statistically significant.

The adjusted odds ratios for complications were 1.1 for ages 21-34, 1.03 for ages 35-39, and 0.91 for women 40, none of which approached statistical significance.

Dr. Srinivas' group adjusted the odds ratios to control for factors such as race, insurance type, university hospital, chronic hypertension, preeclampsia, diabetes, prior vaginal deliveries, induced or augmented labor, low birth weight, gestational age, and number of previous cesarean sections.

Some characteristics varied considerably among age cohorts. Black women accounted for two-thirds of all the teenaged mothers. Medicaid covered two-thirds of the teenaged mothers but only 10% of women over the age of 35. The youngest women also were more likely to give birth at a university hospital.

The occurrence of preeclampsia ranged from 3% to 4% across the age groups. Diabetes and chronic hypertension each increased with age: diabetes ranged from 2% to 10% and hypertension ranged from 1% to 6%.

The proportion of women who had previous vaginal deliveries increased from 19% in the youngest group to 31% of women age 40 years and older. Conversely, Pitocin use declined from 32% of all the youngest women to 15% in the oldest cohort. ■

VBAC Is Viable Option After Fetal Demise, Study Suggests

BY JANE SALODOF MACNEIL
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LOS ANGELES — Vaginal delivery is a viable option for most women who've had a previous cesarean section and experience intrauterine fetal demise in a subsequent pregnancy, Mildred M. Ramirez, M.D., and her colleagues reported at the annual meeting of the Society for Gynecologic Investigation.

In a study of 209 women who faced this difficult situation, vaginal birth after cesarean section (VBAC) had an 86.7% success rate in 158 women who chose this procedure, according to the researchers' poster presentation.

Dr. Ramirez said in an interview that VBAC's success rate in this population was higher than in live births. She attributed the procedure's efficacy to there being no need for normal fetal monitoring and other attention to the well-being of the fetus.

A total of 51 women had a repeat cesarean section without attempting vaginal delivery. The surgical procedure was elective and not medically indicated in 37% of these patients, said Dr. Ramirez of the University of Texas Health Science Center at Houston Medical School.

The study involved data from the National Institute of Child Health and Human Development's Maternal Fetal Medicine Units (MFMU) Network. It represents a new subset analysis from a published observational study of more than 33,000 women in 19 hospitals (N. Engl. J. Med.2004; 351:2581-9; N. Engl. J. Med. 2004; 351:2647-9).

Only women with antepartum singleton pregnancies that resulted in intrauterine fetal demise at or after 20 weeks or when the fetus weighed at least 500 g were included in the new analysis. More than two-thirds of the women had undergone only one prior cesarean delivery; the rest had at least two. A total of 77 women had previously given birth vaginally, 38 of them after a cesarean section.

Labor had to be augmented in 14 patients, however, and induced in 116. Induction of labor appeared to play a role in the uterine rupture rate of 2.4%, which Dr. Ramirez said was higher than the 0.9%-2% rates previously reported for VBAC patients who delivered a live baby.

The rupture rate was even higher, 3.1%, in patients for whom labor had to be induced; four of five uterine ruptures occurred during induction. None of the patients who experienced rupture required a hysterectomy.

"We can probably modify the risk a little, maybe by not inducing patients so aggressively that we have a higher rate of rupture," Dr. Ramirez said.

The transfusion rate was higher in the women who had repeat cesareans: 11.8% in the repeat cesarean group vs. 6.3% in the VBAC group. The VBAC group transfusion rate was higher than is usual with live births, according to Dr. Ramirez, who said the need for transfusion was often associated with the underlying condition that caused the death of the fetus.

The median hospital stay was three days, regardless of whether a woman chose VBAC or had a repeat cesarean section.

Dr. Ramirez said the study reinforced her preference for VBAC in these cases, but predicted physicians would reach different conclusions when advising patients. But, she said, the success rate of VBAC outweighs the physical and emotional toll of cesarean section.

"We have not even looked at the psychological component of how devastating it can be to undergo surgery for a dead baby," she said.

Indomethacin, Cervical Length Evaluation Up Birth Weight in Twins

RENO, NEV. — The rate of very low birth weight in twin pregnancies can be reduced safely with a plan of care that includes cervical length evaluation at 23-25 weeks and long-term indomethacin therapy for women with a short, funneled cervix, Theodore Peck, M.D. reported in a poster session at the annual meeting of the Society for Maternal-Fetal Medicine.

The rate of very low birth-weight twins fell significantly from 11.5% during 1989-1993 to 6.89% during 1999-2003 at Gundersen Lutheran Medical Center in LaCrosse, Wis., where Dr. Peck practices maternal-fetal medicine.

In contrast, the national rate of very low birth-weight infants from twin pregnancies was 10.1% during 1989-1993 and 10.2% during 1999-2003.

The percentage of very low birth-weight twins born at the Wisconsin medical center because of premature rupture of membranes or preterm labor also fell significantly, from 91.2% to 53.2%.

During the more recent time period, women pregnant with twins underwent cervical evaluation by vaginal ultrasound at 23-25 weeks' gestation. Women with cervical lengths less than 3 cm and cervical funneling were instructed to take 25 mg of indomethacin q.i.d. They were not placed routinely on activity restriction, and no cerclages were done.

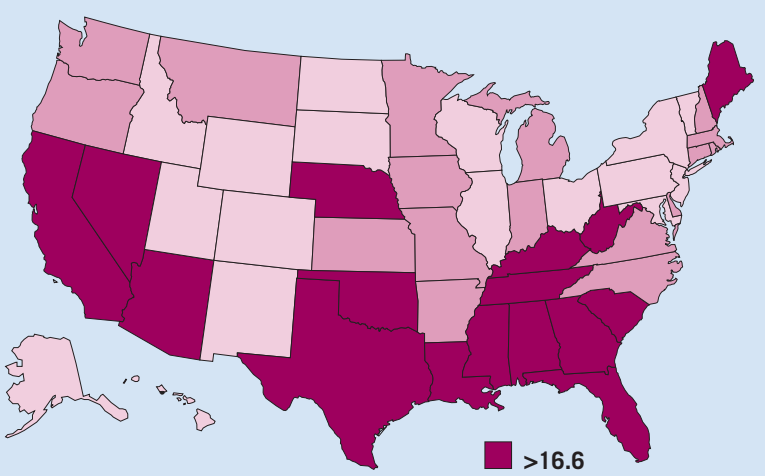
Fetuses were monitored with amniotic fluid assessment and periodic growth determinations, and indomethacin dosages were adjusted accordingly.

Women were excluded from indomethacin therapy if they had premature rupture of membranes, oligohydramnios, asymmetric intrauterine growth retardation, indication for delivery, or they had attained 33 weeks' gestation.

—Robert Finn

DATA WATCH

Vaginal Births After Cesarean Deliveries



Note: Rate per 100 births to women with a previous cesarean.
Source: 2002 data, March of Dimes

KEVIN FOLEY, RESEARCH