

Tips for Managing Variable Decelerations

Focus not only on intensity and duration, but on how factors affect baseline in second stage of labor.

BY DOUG BRUNK
San Diego Bureau

LAS VEGAS — When assessing variable decelerations in the second stage of labor, measure their depth and duration but also determine how those decelerations are affecting the baseline variability and baseline rate, Suzanne McMurtry Baird, a registered nurse clinician, advised at a conference on fetal monitoring sponsored by Symposia Medicus.

"How well is this baby tolerating those persistent variable decelerations?" asked Ms. Baird, a staff nurse in the labor and delivery unit at Vanderbilt University Medical Center, Nashville, Tenn. "Over a prolonged period of time, fetal oxygen reserves will decrease and variability will progressively decrease. Baseline rate will progressively rise if hypoxia begins. Make sure you are documenting and assessing for this and anticipating that this is a possibility. It will prolong the second stage of labor."

Variable decelerations occur when the fetal heart rate decrease is greater than or equal to 15 beats per minute and last for longer than or equal to 15 seconds but less than 2 minutes from onset to return to baseline.

Common causes of variable decelerations include vagal reflex triggered by head compression during pushing and cord compression such as that caused by short cord, nuchal cord, body entangle-

ment, prolapsed cord, decreased amniotic fluid, and fetal descent.

Perform a cervical exam to rule out prolapsed cord and funic presentation and check for imminent delivery.

Depending on the position of the cord, amnioinfusion could be a good option. "Some health care providers like this option and use it," Ms. Baird said. However, she noted that the consistent efficacy of this measure is "very up in the air."

Variable decelerations are caused by vagal reflex, cord compression, nuchal cord, body entanglement, and prolapsed cord, among other things.

Nevertheless, communication with the patient is key during variable decelerations. "Notify this patient and let the family know," said Ms. Baird, who also teaches at the Vanderbilt University School of Nursing. "They may get real excited and see a [fetal] heart rate of 60 [bpm]. Have you had the heart rate disappear during that time because you're [doing] an ultrasound? I've heard patients

say that the baby's heart rate stopped with every contraction. It wasn't stopping. We just failed to tell them that we weren't tracing that heart rate at the end of a deceleration."

Ms. Baird emphasized that "there is no place" for uterine hyperstimulation when a woman is experiencing persistent variable decelerations or persistent late decelerations.

"Oftentimes, I see nurses turning the Pitocin up, even in the presence of all of these patterns and we're at 1-2 minute uterine contractions," Ms. Baird said at the conference. ■

Risk Factors Found in Most Obstetric Patients Who Require Transfusions

PALM DESERT, CALIF. — Just 9% of obstetric patients who required transfusions had no identifiable risk factors for hemorrhage in a study presented at the annual meeting of the Society for Obstetric Anesthesia and Perinatology.

A review of medical records from 2002 and 2003 revealed that 27 of 14,813 patients who delivered vaginally and 44 of 3,844 patients who delivered by cesarean section required blood products, resulting in transfusion rates of 0.18% and 1.1% in vaginal and cesarean deliveries, respectively.

Among those obstetric patients who received a transfusion, more than a third of them had one risk factor, a third had two risk factors, and one in five of the patients had three risk factors, according to John T. Ratliff, M.D., a fellow in anesthesiology at Northwestern University, Chicago.

According to the study findings, the most common risk factor was chorioamnionitis, discovered in 17 of the patients. Some of the other risk factors included multiple gestation (12 patients), a prior uterine scar with no labor (9 patients), placenta previa (8 patients), placental abruption (8 patients), and accreta/percreta (9 patients).

Remaining risk factors included magnesium therapy, prior C-section after a vaginal trial of labor, intrauterine fetal demise, and pregnancy-induced hypertension.

"These data suggest that it might be possible to predict those obstetric patients at risk, and to establish criteria for cross-matching in this population," wrote Dr. Ratliff in a poster that was presented at the meeting.

—Betsy Bates

Vaginal, Cesarean Deliveries Result in Same Trauma Rate, But Nature of Events Varies

BY KATE JOHNSON
Montreal Bureau

SAN FRANCISCO — Birth trauma occurs at the same rate in vaginal and cesarean deliveries, but the nature of the trauma is different, according to data presented at the annual meeting of the American College of Obstetricians and Gynecologists.

Study investigators were not able to distinguish between planned cesarean deliveries and cesarean deliveries that resulted from a failed trial of labor, however.

"The group we have to pay particular attention to is women who had a failed attempt at delivery and then had a C-section. That's probably the highest risk group and may actually be contributing to the trauma in the C-section group. But we couldn't look at this, so we can't tell the whole story with this research," said Susan Meikle, M.D., who is lead investigator

of the study and works at the Agency for Healthcare Research and Quality (AHRQ), located in Rockville, Md.

The AHRQ is mandated by Congress to produce an annual National Healthcare Quality Report that compiles health care data on patient safety. The report also defines adverse events that could be preventable. This portion of the report focuses on the risks for birth trauma.

Birth trauma data were identified using discharge data from 995 nonfederal hospitals located in 35 states and were then compared with data on infants without birth trauma. The data were analyzed by mode of delivery, clinical characteristics, demographics, and hospital characteristics.

The rate of birth trauma among more than 4,000,000 neonates was about 7 per 1,000 live singleton births, Dr. Meikle said.

When analyzed according to mode of delivery, the unadjusted rate of birth trauma was the same for both vaginal and cesarean deliveries. In addition, male infants and preterm infants were found to be at higher risk for birth trauma regardless of the mode of delivery.

After adjustment for delivery mode, vaginal delivery of infants that were large for gestational age had a higher risk of skeletal, spinal, clavicular, and brachial plexus injuries, with an odds ratio (OR) of 1.5.

Cesarean delivery was associated with a higher risk of subdural or cerebral hemorrhage (OR 1.6) and other peripheral or cranial nerve or unspecified trauma (OR 2.1).

"Birth trauma is a heterogeneous group of injuries, and it was not possible to determine whether mode of delivery was a precipitating factor," Dr. Meikle concluded.

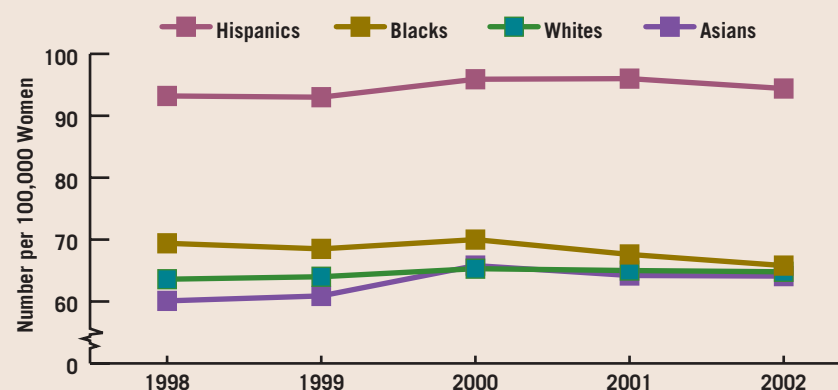
"Trauma occurs with both types of delivery. There's a certain element we can't predict, and you need to be careful in deciding whether you do a C-section or a vaginal delivery," she said in an interview.

"It's hard for us to predict how big babies [will be], and if we had some tools to give us better predictive ability, that would help."

Dr. Meikle said she also recommended that neonatal birth trauma data specify the type of injury, as well as include the attempts at vaginal delivery before a cesarean section should be accounted for in an effort to facilitate research in this field. ■

DATA WATCH

Live Births by Race



Note: Data from women aged 15-44 years.
Source: Centers for Disease Control and Prevention