

# Timing of Anesthesia During Labor Sparks Debate

BY SHERRY BOSCHERT  
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SAN FRANCISCO — Data from recent studies call into question the recommendation that physicians delay administration of epidural anesthesia to nulliparous women in labor, Michael P. Nageotte, M.D., said at a meeting on antepartum and intrapartum management sponsored by the University of California, San Francisco.

The American College of Obstetricians and Gynecologists has recommended that “when feasible, obstetric practitioners should delay the administration of epidural anesthesia in nulliparous women until the cervical dilatation reaches 4-5 cm, and that other forms of analgesia be used until that time,” noted Dr. Nageotte, who is professor of obstetrics and gynecology

at the University of California, Irvine.

Giving an epidural when the cervix is dilated less than 4 cm has been associated with a higher rate of cesarean delivery.

Investigators at Northwestern University, Chicago, led a recent study of 750 term nulliparous women who had experienced spontaneous labor or spontaneous rupture of the membranes. All of the women had a cervix that was dilated less than 4 cm on the initial exam and were told at the time of randomization that they would get an epidural if needed.

The women who participated were randomly assigned to receive either an in-

trathecal injection of fentanyl or systemic hydromorphone when they first requested analgesia. A woman's second request for analgesia resulted in administration of an epidural in the intrathecal group or

assessment of cervical dilation in the systemic analgesia group. Women in the systemic group got an epidural if the cervix was dilated at least 4 cm, or received a second dose of systemic hydromorphone and were given an epidural upon their third request for analgesia.

The rate of cesarean delivery did not differ significantly between groups, but it

was slightly higher in the delayed-epidural group, compared with the early-epidural group—21% vs. 18% (N. Engl. J. Med. 2005;352:655-65). The early-epidural group also had a significantly shorter time from receiving the first analgesia to complete cervical dilation (295 vs. 385 minutes) and a significantly shorter time from first analgesia to vaginal birth (398 vs. 479 minutes).

Women in the early-epidural group had better pain scores and were less likely to have babies with low Apgar scores at 1 minute. Rates of oxytocin use or intrapartum fever did not differ between groups.

In addition, Dr. Nageotte said he has reviewed two unpublished studies from Israel and from the United States that also suggest that delaying epidurals is not beneficial. ■



**Delaying epidural administration to nulliparous women in labor has come under question.**

DR. NAGEOTTE

## Study: 1 in 23 MCDA Twins at Late Risk

Approximately 1 in 23 uncomplicated monochorionic diamniotic twin pregnancies could be at risk for late fetal death, an observational study has shown.

The prospective risk of antepartum stillbirth after 32 weeks in this population appears to be independent of intensive ultrasound surveillance for such complications as twin-twin transfusion syndrome (TTTS) and intrauterine growth restriction, according to lead investigator Olivia Barigye, M.D., of the center for fetal care at Queen Charlotte's and Chelsea Hospital, London, and colleagues (PLoS Med. 2005;2:521-7).

If borne out by additional investigations, the findings could support the practice of elective preterm deliveries in such pregnancies, the authors wrote.

Dr. Barigye and colleagues audited the outcomes of 151 uncomplicated monochorionic diamniotic (MCDA) twin pregnancies seen by the hospital's fetal medicine service over a 12-year period. In all of the pregnancies, fetal growth and amniotic fluid volume were normal, as were the results of biweekly ultrasound studies, suggesting that neither TTTS nor intrauterine growth restriction was present.

Seven of the 151 pregnancies resulted in 10 unexpected fetal deaths within 2 weeks of a normal ultrasound scan at a median gestational age of 34 weeks. Autopsies were conducted for the deaths in five of the seven pregnancies. The autopsies for two double-death cases revealed features suggestive of acute late-onset TTTS. Specifically, postmortem evidence of cardiac hypertrophy was seen in the larger plethoric twins, although no such evidence was noted in ultrasound scans taken within 2 weeks of the intrauterine deaths, the investigators reported.

Although previous studies have suggested the main risk of fetal death in MCDA pregnancies occurred before 24 weeks' gestation, the new data “suggest instead that even intensively monitored, apparently healthy MCDA pregnancies remain at substantial risk of [intrauterine death] after 24 weeks,” the authors wrote.

Notwithstanding the study's small numbers, the findings offer useful information for counseling women and “may be used to inform decisions regarding the optimal timing of delivery,” Dr. Barigye and colleagues said.

—Diana Mahoney

## Some Data Suggest Planned C-Section May Be Best for Vertex/Nonvertex Twins

BY SHERRY BOSCHERT  
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SAN FRANCISCO — Recent data may make trials of labor to deliver twins in vertex/nonvertex positions a thing of the past, Yasser Y. El-Sayed, M.D., predicted.

A large retrospective cohort study found significantly greater safety in planned cesarean deliveries, compared with vaginal delivery of both twins or vaginal delivery of the first (vertex) twin and an emergency C-section after a failed attempt at vaginal delivery of the second (nonvertex) twin (Am. J. Obstet. Gynecol. 2005;192:840-7).

“Breech extraction of the second twin may very well go the way of the singleton breech” delivery, said Dr. El-Sayed of Stanford (Calif.) University.

Breech delivery of singletons generally has been shunned since the 2000 Term Breech Trial found greater morbidity from vaginal breech deliveries of singletons, compared with planned C-sections (Lancet 2000;356:1375-83).

The more recent study looked at all U.S. twin births in 1995-1997 and found 15,185 twin vertex/nonvertex pairs delivered when they were at or greater than 24 weeks' gestation and weighed at least 500 g. In 37.7% of cases, both twins were delivered by planned C-section, and in 46.8%, both twins were delivered vaginally. In 15.5%, the first twin was delivered vaginally and a trial of labor failed for the nonvertex twin, who then was delivered by emergency C-section.

Compared with the planned C-section group, babies in the vaginal delivery-only group had significantly higher rates of all-cause neonatal death, death not related to congenital anomalies, asphyxia-related death, newborn infant injury, low Apgar scores, ventilation use, and seizures.

The emergency C-section group had significantly higher rates of asphyxia-related death, newborn infant injury, low Apgar scores, and ventilation use, compared with the planned C-section group.

Many of these differences remained in subgroup analyses of infants weighing less than or more than 1,500 g. That finding contradicts the results of less well-designed retrospective studies suggesting that breech delivery of a nonvertex twin was safe for babies weighing at least 1,500 g, Dr. El-Sayed noted.

Authors of the twin study said their results were consistent with those of the singleton Term Breech Trial and concluded that planned C-section delivery causes the least morbidity to nonvertex second twins or to singletons.

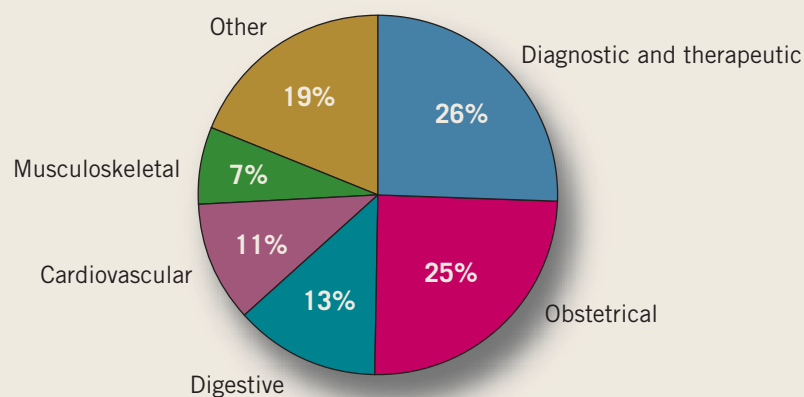
In the twin study, emergency C-sections were needed for almost 25% of nonvertex twins who underwent an attempted vaginal delivery.

“The authors of the study suggest that perhaps this alone should lead to routine cesarean section for vertex/nonvertex twins,” Dr. El-Sayed said. ■

**Emergency C-sections were needed for almost 25% of nonvertex twins whose mothers underwent an attempted vaginal delivery in a large cohort study.**

### DATA WATCH

#### Obstetrics Accounts for One-Quarter of Procedures in Hospitalized Females



Notes: Based on 2003 data from 426 U.S. hospitals with about 320,000 discharges. Percentages do not add to 100% because of rounding.  
Source: Centers for Disease Control and Prevention