Timing of Anesthesia During Labor Sparks Debate

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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 laboring with uncomplicated monochorionic diamniotic twin pregnancies because it is associated with a greater rate of cesarean delivery.

The recent data may make trials of labor to deliver twin (vertex/nonvertex) positions a thing of the past, Yasser Y. El-Sayed, M.D., predicted.

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

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.

Study: 1 in 23 MCDA Twins at Late Risk

A 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 invasive 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.

Barigye and colleagues said: “When feasible, obstetric practitioners should delay the administration of epidural anesthesia in nulliparous women until the cervical dilation 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.

In a study at Northwestern University, Chicago, led a recent review of 700 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 intrathecal 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 group.

Women in the systemic group got an epidural if the cervix was dilated at less than 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;352:655-6). 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.