

# Neuraxial Analgesia Early In Labor Is Good Option

BY CHRISTINE KILGORE  
Contributing Writer

**N**ulliparous women who request pain relief early in labor may be better off receiving neuraxial analgesia than systemic opioid analgesia, according to investigators of a recently published, randomized trial.

Of 728 women who had spontaneous labor or spontaneous rupture of membranes, those who received intrathecal fentanyl when cervical dilation was less than 4 cm did not face an increased risk of having a cesarean section and had a shorter duration of labor, compared with those who received systemic hydromorphone early in labor.

Women who received neuraxial analgesia also reported better pain control, according to Cynthia A Wong, M.D., and her colleagues at Northwestern University in Chicago.

The findings show women who request pain relief early in spontaneous labor "can receive neuraxial analgesia at that time without adverse consequences," the researchers said.

Women who request analgesia early in labor frequently receive systemic opioid analgesia, in keeping with the American College of Obstetricians and Gynecologists recommendation that epidural anesthesia be delayed, when feasible, until cervical dilation is at least 4-5 cm; other forms of analgesia should be used until that time.

Systemic opioid analgesia is often incomplete, however, and has potential maternal and fetal side effects, including neonatal and maternal respiratory depression (N. Engl. J. Med. 2005;352:655-65).

Laura Goetzl, M.D., who helped write ACOG's 2002 Practice Bulletin on Obstetric Analgesia and Anesthesia, said in an interview that the new findings present "another option" for prolonging the time to epidural.

"This is saying, instead of giving a higher dose of [systemic] narcotics to get women further along [until epidural administration], we can give them a smaller dose right into the spinal cord," said Dr. Goetzl of the Medical University of South Carolina, Charleston.

The investigators studied the analgesia

techniques at Northwestern's Prentice Women's Hospital from November 2000 to December 2003. Patients who requested analgesia when cervical dilation was less than 4 cm were randomized (nonblinded) to intrathecal or systemic analgesia.

The median dilation for both groups at the first analgesia request was 2 cm.

Analgesia in the intrathecal group was initiated using a combined spinal-epidural technique. Intrathecal fentanyl (25 mcg) was injected, an epidural catheter sited, and an epidural test dose administered.

When the patients in the intrathecal group made a second request for pain control, epidural analgesia was initiated.

Patients in the systemic group received 1 mg hydromorphone IM and 1 mg IV. Epidural analgesia was initiated in patients who were at least 4 cm dilated at their second request for pain control (otherwise hydromorphone was repeated), or at their third analgesia request—regardless of dilation.

Epidural analgesia was maintained in both groups until delivery, the investigators said.

The cesarean rate was not significantly different between the two groups (18% in the intrathecal group and 21% in the systemic group); nor was there a significant difference in the rate of instrumental vaginal delivery.

The median time from initial analgesia to complete dilation was significantly shorter after intrathecal analgesia than after systemic analgesia (295 vs. 385 minutes), even after investigators adjusted for cervical dilation at the time of initial anesthesia.

Women who received intrathecal analgesia also had a shorter time to vaginal delivery (398 vs. 479 minutes) and significantly lower average pain scores between the first and second analgesia requests. The incidence of 1-minute Apgar scores below 7 also was significantly lower in this group (17% vs. 24%).

Fetal deceleration occurred more commonly within 30 minutes of intrathecal opioid analgesia than after systemic analgesia. However, the incidence of nonreassuring fetal heart rate "was low, did not differ between groups, and did not result in any adverse neonatal outcome," the investigators said. ■

## Study Finds Rate of Cesarean Sections Was Not Affected by Elective Induction

WASHINGTON — Elective induction did not adversely affect the cesarean-section rate or maternal fetal morbidity in a retrospective cohort study of 361 nulliparous patients.

The women, who were at 37-41 weeks' gestation, were delivered from January 1998 to December 1999 at the Ochsner Clinic Foundation in New Orleans. The women had singleton pregnancies and no medical indications for delivery, David J. Bonilla, M.D., reported in a poster at the annual meeting of District VII of the American College of Obstetricians and Gynecologists.

The women were divided two groups: a spontaneous labor group and a group that had elective induction with a favorable cervix

(Bishop score of at least 5), reported Dr. Bonilla of the clinic.

The C-section rate was almost 10% in the group of 114 patients who had elective induction with a favorable cervix, compared with 17% in the 247 patients who had spontaneous labor.

The induction group had a significantly higher rate of instrumental delivery, compared with the spontaneous labor group, 32% vs. 23%. There was a slight increase in admissions to the neonatal ICU in the elective induction group (1.45% vs. 3.23%), but it was not significant. Elective induction did not impact other outcome variables in relation to fetal morbidity

—Deeanna Franklin

# Researchers Urge Prenatal Screening for Toxoplasmosis

BY MICHELE G. SULLIVAN  
Mid-Atlantic Bureau

**A**ll pregnant women should undergo screening for *Toxoplasma gondii* infection once each trimester, and all newborns should be screened for congenital toxoplasmosis, Kenneth M. Boyer, M.D., and colleagues have recommended.

Even a thorough history fails to identify about half of pregnant women who have an acute infection, according to Dr. Boyer of Rush University Medical Center, Chicago. Only a serologic screening process would identify all infected women and newborns in time to administer the medical treatment necessary to prevent neurologic sequelae of the illness in these infants (Am. J. Obstet. Gynecol. 2005;192:564-71).

"It is difficult to imagine that any informed mother or father would choose not to include this screening in their prenatal care, considering that almost all untreated infants who are infected ... in utero experience ophthalmologic and/or neurologic disease, and that treatment of the fetus and infant clearly reduces these risks," they said.

The researchers retrospectively analyzed the medical records of 131 infants and children with congenital toxoplasmosis who were referred to the Chicago Collaborative Treatment Trial. The study focused on demographic data and the mothers' understanding of factors surrounding their exposure to the parasite.

The women were questioned about their exposure during pregnancy to cats, cat litter, gardening, and sandboxes. They also were questioned about their consumption of raw or undercooked meat, eggs, or unpasteurized milk, as well as the nature and timing of their exposure; and any illness during pregnancy that was compatible with infection, especially prolonged fever, night sweats, myalgia, headache, and lymphadenopathy.

Most of the women (75%) could recall a conceivable exposure, but only 39% specifically recalled exposure to cat litter or raw meat dishes. One-quarter of the women could not identify any possible exposure to either cats or raw or undercooked foods.

More than half (52%) could not recall an infectious illness of any kind during pregnancy. Almost half (48%) noted an illness that might have been caused by the parasite; 27% recalled fever or night sweats and 23% recalled lymphadenopathy.

Ten of the women had serologic testing for toxoplasmosis before delivery. Three of those were living in France at the time, where such testing is part of routine obstetric care. Each of the remaining seven women had compatible illness or identified risk factors. One woman was tested because an ultrasound noted ascites in her twin fetuses. Three were tested because their physicians were looking for the cause of the illness, and three were tested as part of routine obstetric care.

Since only three women were tested as part of an investigation of an infectious illness, it is apparent that many physicians do not consider toxoplasmosis as a possible cause of these nonspecific symptoms during pregnancy, the authors noted. "This observation points out the importance of greater recognition by ob-

stetricians of the pediatric implications of maternal infection and infectious symptoms during pregnancy."

The only way to prevent or detect a higher proportion of infants with congenital infection is by systematic serologic screening, they concluded, adding that cost analyses should be performed before any decision making occurs.

However, the potentially devastating lifelong effects of congenital toxoplasmosis, and the recognized benefits of early identification and treatment, make a compelling case for systematic screening, the researchers said.

Additionally, they noted, congenital toxoplasmosis is more common than many genetic and metabolic diseases, such as phenylketonuria, congenital hypothyroidism, and congenital adrenal hyperplasia, for which mandatory neonatal screening already exists.

The American College of Obstetricians and Gynecologists recommends routine toxoplasmosis screening only in HIV-positive pregnant women. Routine screening also may be justifiable in women who are cat owners, the college says.

ACOG does not recommend routine screening for every pregnant woman, because there is a low incidence of seropositivity in the United States. Countries such as France and Austria, which have mandated screening, have high rates of seropositivity among their populations.

Serologic screening in pregnant women may yield equivocal results because IgM antibodies to the parasite can persist for long periods, according to the American College of Obstetrics and Gynecologists. ■

**Congenital toxoplasmosis is more common than many genetic and metabolic diseases for which mandatory neonatal screens already exist.**