

# Obstructive Sleep Apnea Linked to Preeclampsia

BY SHERRY BOSCHERT  
San Francisco Bureau

SAN FRANCISCO — Pregnant women were more likely to have risk factors for obstructive sleep apnea, compared with nonpregnant women, in a study of 4,564 women.

In addition, pregnant women identified to be at risk for sleep apnea were more likely to develop preeclampsia, compared with pregnant women who didn't have sleep apnea risk factors, Dr. Nicole Higgins, an anesthesiologist at Northwestern University, Chicago, and her associates reported in a poster presentation at the annual meeting of the American Society of Anesthesiologists.

About 2% of adult women have obstructive sleep apnea, a condition characterized by obstruction of the upper airway and episodes of apnea and hypopnea during sleep. In an interview, Dr. Higgins attributed the increase in sleep apnea cases to the greater prevalence of obesity. The incidence of obstructive sleep apnea in pregnancy has been unknown.

In the prospective study, 33% of 4,074 pregnant women presenting for delivery

and 20% of 490 control women presenting for outpatient surgery screened positive on the Berlin Questionnaire, which identifies patients at increased risk for sleep apnea through questions about snoring and daytime sleepiness.

The researchers found pregnancy doubled the chance for screening positive on the Berlin screen, and pregnant women screening positive on it were four times more likely to develop preeclampsia, compared with pregnant women who screened negative. Those screening positive were significantly shorter, heavier before pregnancy, and heavier during pregnancy than were those with a negative screen.

In the current study, there was a significant correlation between a positive Berlin screen and heavier infant weight (3,475 g vs. 3,374 g if the mother screened negative). A positive Berlin screen also correlated significantly with risk for low 1-minute Apgar scores. About 7% of infants born to mothers who screened positive had 1-minute Apgar scores below 7, compared with 6% of infants if the mother screened negative for sleep apnea. ■

# Persistent Pain Rates Are Similar After C-Section, Vaginal Deliveries

BY SHERRY BOSCHERT  
San Francisco Bureau

SAN FRANCISCO — Eight weeks after giving birth, about 1 in 10 patients reported persistent delivery-related pain regardless of whether they were delivered vaginally or by cesarean section in a study of 972 U.S. women.

"Previous reports may have overestimated the incidence of persistent pain" after C-section, said Dr. Peter H. Pan, a professor of anesthesiology at Wake Forest University, Winston-Salem, N.C.

There were no significant differences in the severity of pain or its effect on daily activities between the 668 women who delivered vaginally and the 304 who underwent C-section in this multicenter prospective study, he said at the annual meeting of the American Society of Anesthesiologists.

In the vaginal delivery group, 10% reported delivery-related pain at 8 weeks post partum, and 49% of these said the pain affected their daily activities. In the C-section group, 9% had persistent pain 8 weeks after delivery, and 45% of these said it affected their daily activities, reported Dr. Pan and his associates.

Previous studies of persistent pain after

delivery either were retrospective or included only small cohorts of women outside the United States. Investigators in one study reported persistent perineal pain 6-24 weeks after vaginal delivery in 4%-7% of women. Researchers in a separate study reported that 18% of women had persistent pain at 3 months post partum and 12% had pain after 10 months.

The current study enrolled women while they were in the hospital for delivery and had them complete a questionnaire and interview to assess preexisting pain syndromes, psychological factors, and sensory perception and sensitivity. The patients were contacted telephonically 8 weeks later to assess the presence of pain related to delivery, its severity and location, its impact on daily living, and the presence of clinical depression. Women reporting delivery-related pain at 8 weeks post partum are being reinterviewed at 6 and 12 months post partum.

Women with third-degree perineal tears or episiotomies were more likely to report persistent pain, but this was not true of women with less severe lacerations, Dr. Pan said. There was no significant difference between primary or repeat C-sections as predictors for persistent pain, statistical analysis suggested. ■

# With an Unintended Pregnancy, Both Mother and Baby Face Greater Risks

BY NANCY WALSH  
New York Bureau

MINNEAPOLIS — Data from a surveillance system in Maryland show the burden of unintended pregnancy remains large, with multiple potential risks for mothers and infants, according to Dr. Diana Cheng of the Maryland Department of Health and Mental Hygiene, Baltimore.

The Maryland Pregnancy Risk Assessment Monitoring System (PRAMS) was established by the Centers for Disease Control and Prevention to obtain information about maternal behaviors and experiences that may be associated with adverse pregnancy outcomes.

Between 2001 and 2005, a random sample of 7,381 mothers did the PRAMS survey 2-6 months after delivery. The survey included the following question: Thinking back to just before you got pregnant, how did you feel about becoming pregnant? Available answers were "I wanted to be pregnant sooner," "I wanted to be pregnant later," "I wanted to be pregnant then," or "I didn't want to be pregnant then or at any time in the future."

Pregnancies were classified as intended if the mothers had wanted them then or sooner and as unintended if they said they wanted them later or not at all.

Analysis of the responses showed that 58% of the pregnancies were intended and 42% were unintended, Dr. Cheng said at the annual meeting of the Association of Reproductive Health Professionals.

In women with intended pregnancies,

16% said they wanted their pregnancy sooner and 42% said they wanted their pregnancy then. In those with unintended pregnancies, 31% said they wanted their pregnancies later and 11% said they didn't want to be pregnant then or ever.

Of those whose pregnancies were unwanted, 86% did not take folic acid daily, 44% initiated prenatal care after the first trimester, and 24% smoked during pregnancy. Post partum, 37% did not breast-feed, 30% smoked, 27% reported depression, and 50% did not place their babies on their backs to sleep. Moreover, 11% of women in this group reported a history of physical abuse.

In women with intended pregnancies, by contrast, significantly lower percentages engaged in unhealthy behaviors. For example, in this group, 87% initiated prenatal care during the first trimester, 81% breast-fed, and 69% placed their babies on their backs for sleep.

A total of 10% of babies born to mothers whose pregnancies were unwanted were of low birth weight, as were 7% of babies born to mothers whose pregnancies were intended.

The survey also found that 43% of the women were using birth control at the time they became pregnant. Among the women who did not use birth control, most said they did not think they could get pregnant at that time. Improving women's access to education about contraception will help couples better plan pregnancies and increase the rates of intended pregnancies, she said. ■

# 5-HT<sub>3</sub> Receptor Antagonists Reduce Nausea, Vomiting Tied to C-Section

BY SHERRY BOSCHERT  
San Francisco Bureau

SAN FRANCISCO — Administering the 5-HT<sub>3</sub> receptor antagonists ondansetron or granisetron to women undergoing cesarean delivery with neuraxial anesthesia significantly reduces intra- and postoperative nausea and vomiting, compared with placebo, according to a meta-analysis of nine randomized, double-blind trials.

Intraoperative nausea and vomiting are "emerging in obstetrical anesthesia practice as a major problem," Dr. Terrence K. Allen, an anesthesiologist at Duke University, Durham, N.C., noted. "It's different from the general surgical population because, obviously, those patients are asleep."

**Antiemetics cut the risk for intraoperative nausea and vomiting by 38% and 46%, respectively, and by 49% for both postoperative vomiting and nausea.**

Previous systematic reviews have shown the efficacy of these agents in reducing nausea and vomiting after surgery with general anesthesia. The nine individual studies of 5-HT<sub>3</sub> receptor antagonists in women who were administered neuraxial anesthesia for cesarean delivery produced inconsistent results, so the researchers grouped them in a meta-analysis, Dr. Allen said in a poster presentation at the annual meeting of the American Society of Anesthesiologists.

The medication was administered intraoperatively following clamping of the umbilical cord or delivery of the baby in

eight studies in the meta-analysis, and postoperatively in one study. Dr. Allen and his coinvestigator, Dr. Ashraf S. Habib, combined the data on ondansetron and granisetron and the dose ranges used in the studies because recent consensus guidelines report no evidence of differences in efficacy between these subgroups.

Results showed that the 5-HT<sub>3</sub> receptor antagonists significantly reduced the relative risks for nausea and vomiting, compared with placebo. They reduced the risk for intraoperative nausea by 38%, the risk

for intraoperative vomiting by 46%, the risk for postoperative nausea by 49%, and the risk for postoperative vomiting by 49%, he reported.

Nausea and vomiting make "the whole surgery and anesthesia a little more un-

pleasant," Dr. Allen said. The study's results have affected practice at his institution.

"We're certainly more vigilant about asking about intraoperative nausea and vomiting, and we treat it a bit more aggressively" in women undergoing C-section using neuraxial anesthesia. "We may not all use 5-HT<sub>3</sub> receptor antagonists, but we administer some sort of pharmacologic agent."

Dr. Allen and Dr. Habib, also of Duke University, have no financial relationships with the companies that make the medications studied. ■