Postcesarean Oxytocin Boluses of Low Benefit

BY KATE JOHNSON
Montreal Bureau

BANFF, ALTA. — The routine practice of giving oxytocin bolus- es to reduce the risk of postpartum hemor rhage appears to be of lim ited benefit even in high-risk pa tients after cesarean section, as long as an appropriate oxytocin infusion is given, according to the first randomized, placebo-con trolled trial of the practice, said Dr. Kylie King from Maitland (Aus tralia) Hospital. The practice of administering oxytocin boluses has recently come under scrutiny. “Although the ad verse hemodynamic effects of oxy -tocin injection are well docu mented, one recently reported death associated with a 10-U bolus in the U.K. has prompted a change in dose from 10 to 5 units given slow ly,” she said at the annual meeting of the Society for Obstetric Anes thesia and Perinatology. “This begs the question: Is a bolus necessary? Is 5 U the right dose? How slowly should it be given? And might an infusion be sufficient?” Her study, which was conducted at British Columbia Women’s Hospital in Vancouver, compared 143 subjects: 70 received an intra venous 5-U bolus of oxytocin, and 73 received normal saline, given over 30 seconds following cesare an section and cord clamping. Both groups also received an identical infusion of 40 U of oxy- tocin in 500 mL of normal saline over 30 minutes, followed by 20 U of oxytocin in 1 L of saline over the next 8 hours. “Our hypothesis was that the bolus, given in addition to the in -fusion, would reduce the need for additional drugs to contract the uterus,” said Dr. King. Because previous studies have suggested that oxytocin may have little or no effect in a low-risk population, study subjects were specifically se lected as being high risk for post partum hemorrhage. “Multiple gestations and macrosomia were the most common risk factors.” Overall, 53% of the cesarean sections were elective, with 47% classified as emergency proce dures. The need for additional uterotonics was high—between 30% and 40% overall—confirming that the population was indeed high risk, but need for more uterot onics was similar in both groups as assessed by a surgeon who was blinded to the patients’ random ization. In this analysis, there was no difference between groups in the secondary outcomes of estimated blood loss, need for blood transfu sion or severe hemorrhage. “Even in a high-risk group, a 5- U bolus is of limited additional benefit that provided an adequate infusion is given,” concluded Dr. King. “Getting a stronger initial contraction at 1 minute doesn’t re duce the need for additional utero tonics over the next 24 hours.” ■

Hypnotic Sleep Aids

BY GERALD G. BRIGGS, B.PHARM, FCCP

Obstetrics

Hypnotic Sleep Aids

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the physical discomforts of pregnancy that are induced by the surge of prog enestogen and the expanding uterus will result in nearly universal sleep deprivation in pregnancy. An increased need to urinate, nau se and vomiting, heartburn, difficulty in find ing a comfortable sleeping position, and, as the pregnancy progresses, the kicking and move ment of the fetus, all conspire against a good night’s sleep. Prescribing sleeping medications in preg nancy may not be the best solution because long-term use can lead to habituation in the woman, as well as in her fetus. However, patients will frequently seek drug therapy to help them sleep, so it is essential to have ade quate knowledge of what is rel atively safe and what is not. Hypnotics can be categorized into five subcl asses: barbiturates, benzodiazepines, nonbenzodiazepines, over-the-counter anti histamines, and herbal and nat ural products.

■ Oral barbiturates. In this group are aprobarbital (preg nancy risk factor C) (Alurate), pentobarbital (D) (Nembutal); and secobar bital (D) (Seconal). Developmental toxicity has not been proven, but more studies are needed regarding the potential for behavioral toxicity during uterine exposure. Their long elimination half-lives (24, 22-50, and 28 hours, respectively) can cause pro longed sedation, or hangover. They are con trolled substances with potential for abuse, which makes them more difficult to prescribe. Although they are excreted into milk in low amounts, they can be classified as compatible with breast-feeding.

■ Benzodiazepines. Estazolam (ProSom), flurazepam (Dalmale), quazepam (Doral), and temazepam (Restoril) are in this catego ry. Data on the use of these agents in preg nancy are very limited. Although there has been no proven association between any of these agents and birth defects, they probably have effects on the embryo or fetus similar to diazepam (Valium), including neonatal motor depression (floppy infant syndrome) and/or withdrawal when used in the third trimester. Moreover, all four agents are categorized as contraindicated (risk factor X) by their man ufacturers, so they should not be prescribed. Small amounts of quazepam and temazepam are excreted into milk, and the other two agents are most likely in milk as well. Occa sional dosing during breast-feeding is likely safely, but the long-term effects on a nurs ing infant are unknown.

■ Nonbenzodiazepines. The five drugs in this category are chloral hydrate (for example, Somnote), ramelteon (Rozerem), zaleplon (Zolpidem), and temazepam (Restoril). Chloral hydrate (available only as an orphan drug in the United States), mugwort, passion flower, quassia, rauwolfia, Siberian ginseng, taumelooolch, tulip tree, and valerian. A nonpharmacologic approach is the best and safest course for pregnant patients with insom nia. If medications are required, occa sional, short-term use is recommended; one of the OTC antihistamines is probably the best choice. A nonbenzodiazepine agent, such as zolpidem would be a second choice. For more information, clinicians can visit www.babycenter.com, a Web site frequently visited by women to obtain information about their pregnancies, including tips on sleeping well.

Drugs, Pregnancy And Lactation

The physical discomforts of pregnancy that are induced by the surge of progesterone and the expanding uterus will result in nearly universal sleep deprivation in pregnancy. An increased need to urinate, nausea and vomiting, heartburn, difficulty in finding a comfortable sleeping position, and, as the pregnancy progresses, the kicking and movement of the fetus, all conspire against a good night’s sleep.

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By Kate Johnson

Ultralight Epidural Works as Both Infusion, Patient-Controlled Bolus

BY KATE JOHNSON
Montreal Bureau

BANFF, ALTA. — Ultralight doses of epidural analgesia given either as a continuous infusion or as patient-controlled boluses appear to result in comparable pain and Appgar scores as well as medication usage, according to the preliminary results of an ongoing study.

“Our numbers are very small right now, but as soon as we get more I am sure we will see a sta tistical difference between the two in terms of patient satisfaction,” predicted Dr. Maya Suresh, chief of obstetric anesthesiology at Bay -College of Medicine, Houston. “I think patient-controlled epidur al analgesia [PCEA] is advanta geous to the patient because she is in control of her own pain. And, if you are not called frequently to intervene or to troubleshoot that also adds to the provider’s satis -faction.”

The study, presented at the an nual meeting of the Society for Obstetric Anesthesia and Permana -tology, is the first to compare out -comes using an ultralight epidural solution of 0.0625% bupivacaine plus 2 mcg/mL fentanyl. Fifteen nulliparous parturients requesting epidural analgesia were randomized to the continuous-infusion epidural analgesia (CIEA) arm and received the solution at a dose of 14 L/hr. Another 15 women were randomized to PCEA and received an 8 mL/hr background infusion of the same solution with the option for 5 mL boluses on demand at a 5-minute lockout interval, and an hourly limit of 25 mL. Reported Dr. LaToya Mason from the same institution, who presented the study.

There was no statistically signif icant difference between groups in umbilical artery pH scores, Apgar scores, or pain scores, said Dr. Mason. All patients were hemodynamically stable except for four who had cesareans (two in each group).

—Kate Johnson