

Unaccounted factors for opioid use after vaginal delivery



TO THE EDITORS: I read with great interest the article of Badreldin et al¹ in a recent issue of the journal. The authors performed a retrospective study of 9038 women after a vaginal delivery and concluded that both the use of acetaminophen and having had postpartum orders written by an advanced practitioner were independently associated with lower odds of inpatient opioid use. The authors should be applauded for performing a well-designed study in an important topic (ie, opioid consumption) in patients undergoing vaginal delivery.^{2,3} The need to improve postpartum recovery by reducing moderate/severe postpartum pain makes the topic very important in obstetric medicine.^{4,5}

The study of Badreldin et al was well conducted; nonetheless there are some critical points that need to be clarified by the authors to determine the validity of the study findings. First, it is unclear if the authors accounted for intrathecal opioids given during the regional anesthetic technique. This can substantially alter the study results, since intrathecal morphine can substantially alter the need for analgesia after labor. Last, it is important to describe which type of regional anesthesia was provided, since different techniques (eg, pudendal block, combined spinal-epidural catheters) have different efficacy for postlabor pain.

I would welcome comments by the authors, as this would help to further substantiate the findings of this important study. ■

Daniel Fullin, MD
Department of Anesthesiology, Rhode Island Hospital
The Warren Alpert Medical School of Brown University
Providence, RI
dfullin@lifespan.org

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REFERENCES

1. Badreldin N, Grobman WA, Yee LM. Inpatient opioid use after vaginal delivery. *Am J Obstet Gynecol* 2018;219:608.e1–7.
2. Lee M, Zhu F, Moodie J, Zhang Z, Cheng D, Martin J. Remifentanyl as an alternative to epidural analgesia for vaginal delivery: A meta-analysis of randomized trials. *J Clin Anesth* 2017;39:57–63.
3. Towers CV, Shelton S, van Nes J, et al. Preoperative cesarean delivery intravenous acetaminophen treatment for postoperative pain control: a randomized double-blinded placebo control trial. *Am J Obstet Gynecol* 2018;218:353.e1–4.
4. Kitlik A, Erdogan MA, Ozgul U, et al. Ultrasound-guided transversus abdominis plane block for postoperative analgesia in living liver donors: A prospective, randomized, double-blinded clinical trial. *J Clin Anesth* 2017;37:103–7.
5. Ueshima H, Hara E, Otake H. Lumbar vertebra surgery performed with a bilateral retrolaminar block. *J Clin Anesth* 2017;37:114.

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REPLY



We appreciate Dr Fullin's interest in our work.¹ We enthusiastically agree that there is a need to improve postpartum pain management and this remains a pivotal goal of our research.

In this study of more than 9000 women who underwent a vaginal delivery, we showed that greater use of acetaminophen and analgesia orders written by an advanced practitioner were independently associated with decreased odds of opioid use in the 24 hours prior to hospital. As Dr Fullin highlights, intrapartum regional analgesia was associated with increased odds of opioid use during this time frame.

Dr Fullin correctly points out that regional analgesia can include a wide range of anesthetic techniques. For the purposes of our analyses, the term *regional analgesia* was used to encompass epidural, spinal, and combined spinal and epidural analgesia. Our data are compiled from a single center that is serviced by 1 obstetrical anesthesia group with unified practices. Laboring patients who opt for neuraxial analgesia typically receive a combined spinal and epidural dosed with fentanyl and bupivacaine. Intrathecal morphine is not routinely used for laboring patients. ■

Nevert Badreldin, MD
Department of Obstetrics and Gynecology
Division of Maternal-Fetal Medicine
Northwestern University Feinberg School of Medicine
Chicago, IL
nevert.badreldin@northwestern.edu

William A. Grobman, MD, MBA
Department of Obstetrics and Gynecology
Division of Maternal-Fetal Medicine
Northwestern University Feinberg School of Medicine
Chicago, IL

Lynn M. Yee, MD, MPH
Department of Obstetrics and Gynecology
Division of Maternal-Fetal Medicine
Northwestern University Feinberg School of Medicine
Chicago, IL

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REFERENCE

1. Badreldin N, Grobman WA, Yee LM. Inpatient opioid use after vaginal delivery. *Am J Obstet Gynecol* 2018;219:608.e1–7.

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