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Association of Intended Route of Delivery and Maternal Morbidity in Twin Pregnancy

I read the recent article by Easter et al¹ with interest and surprise. The conclusion was that women undergoing a trial of labor with twins experience higher odds of serious postpartum hemorrhage than those electing cesarean delivery. However, the mechanisms leading to increased blood loss after intended vaginal delivery of twins was unclear except lacerations. Can the authors present other mechanisms leading to the result? In general, cesarean delivery has been recognized to be associated with an increased risk of serious postpartum hemorrhage. The 90th percentile of bleeding at twin delivery in Japan has been reported to be 1,600 mL for vaginal delivery and 2,300 mL for cesarean delivery.² In our previous observation,³ postpartum hemorrhage requiring transfusion was significantly more likely after elective cesarean delivery at term, whereas emergency cesarean delivery at term was not associated with an increased risk of postpartum hemorrhage requiring transfusion. In our article,³ the mechanisms leading to increased blood loss after delivery of twins was suggested to be associated with uterine atony without contraction. For physician counseling to select the delivery mode of twins, presentation of convincing mechanisms is required.

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In Reply:

We thank Dr. Suzuki for the opportunity to expand on the higher rates of postpartum hemorrhage in mothers attempting vaginal birth of twins.¹ A review of our cases of hemorrhage revealed uterine atony as the primary causes of postpartum bleeding, which is in line with national data.² Fifty percent of hemorrhages in the elective cesarean group ($n=14/28$) and 48.1% in the labor group ($n=25/52$) were due to atony. Other causes of hemorrhage included retained placenta (25.0% compared with 10.7%), laceration or trauma (15.4% compared with 7.1%), disorders of coagulation (1.9% compared with 3.6%), and unrecognized hemorrhage requiring postpartum transfusion (9.6% compared with 28.6%). Although Dr. Suzuki mentions a recognized association between cesarean delivery and hemorrhage, this typically applies to labored rather than elective cesarean deliveries in singleton births.³ Our study extrapolates this finding to twin deliveries. Notably, 65% of laboring patients who hemorrhaged with cesarean delivery had reached the second stage.⁴ This underscores the role of operative obstetrics to avoid second-stage cesarean deliveries

and associated morbidity. Our results emphasize active management of the third stage of labor, protocols for early identification and management of postpartum hemorrhage, and skill sets to prioritize vaginal delivery for women who attempt labor with twins.⁵

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Naproxen Sodium for Pain Control With Intrauterine Device Insertion: A Randomized Controlled Trial

I was very interested in the unexpected findings reported by Ngo et al.¹ The double-blind, randomized, placebo-controlled trial was designed to evaluate the effect of naproxen sodium on their primary outcome,

pain with intrauterine device (IUD) placement. Although they found no difference in pain at the time of IUD placement, they report a significant difference at 5 and 15 minutes after IUD placement. I believe that the study actually demonstrates no relevant difference in pain at any time point with use of naproxen sodium compared with placebo 1–1.5 hours before IUD placement.

The investigators initially established sample size estimates for nulliparous ($n=84$) and parous ($n=76$) women but discontinued the parous cohort owing to slow enrollment. Instead of just enrolling 84 nulliparous women, they overenrolled to include 118 women in the final analysis. This larger sample allowed the investigators to calculate what they claim is a statistically significant finding at both 5 and 15 minutes after IUD placement. Median visual analog scale (VAS) pain scores at 5 minutes after placement were 16.5 and 26 ($P=.01$) for naproxen and placebo users, respectively. At 15 minutes, the median scores were 12.8 and 24 ($P=.01$), respectively.

The debate concerns what difference in VAS scores can be considered clinically significant. The authors state that changes in scores of 9–14 mm define a minimum change that is clinically significant. However, their references are articles dating from 1996 to 2001, primarily from emergency medicine literature. The level of clinical significance was evaluated more closely in the anesthesia literature in 1998 (during the same time frame) in a study that validated the correlation of a 100-mm VAS and an 11-point oral scale and that the VAS imprecision is ± 20 mm.² The 20-mm minimum has been used most commonly in recent IUD studies evaluating pain, including one in this journal.^{3–5}

The differences reported in pain at 5 and 15 minutes do not meet the 20-mm threshold as clinically significantly different. The authors used 15 mm as their estimate of significance in their original sample size calculation; the findings at 5 and 15 minutes do not meet this criterion either. Thus, although the sample was large enough for the authors to claim statistical significance, I believe the findings fail to show any clinical difference.

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a consultant for Estetra, Health Decisions, and Medicines360. The Department of Obstetrics and Gynecology, University of California, Davis, receives research funding for contraceptive clinical trials from Contracepted, Medicines360, Merck & Co., NIH/NICHD and the Society of Family Planning.

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In Reply:

We thank Dr. Creinin for his comments on and interest in our article.¹ We agree that our findings reveal small absolute differences in pain scores, and we do not know with certainty whether these differences are clinically relevant. However, several studies suggest that a 30% difference in visual analogue pain scores is clinically significant.^{2,3} Although the absolute pain scores after intrauterine device insertion (IUD) were low in our study, we observed a reduction in pain scores by 37% at 5 minutes and 47% at 15 minutes postinsertion in the naproxen sodium group (26.0 mm compared with

16.5 mm at 5 minutes and 24.0 mm compared with 12.8 mm at 15 minutes, placebo compared with naproxen sodium, respectively).

In deciding whether to recommend naproxen sodium, we must weigh the risks and benefits of this before a patient takes the medication. Based on our study findings, naproxen sodium appears to provide a small reduction in post-IUD insertion pain. Similarly, the risk and cost of a one-time dose of 550 mg naproxen sodium is small. With adequate counseling, the patient can choose whether it is worthwhile for her to take naproxen sodium before IUD insertion. We believe that, for many women, even a small benefit will outweigh the risks.

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Implementing Immediate Postpartum Long-Acting Reversible Contraception Programs

We read with great interest the recent article by Hofler et al¹ regarding implementing immediate postpartum long-acting reversible contraception (LARC). We agree that immediate