

Is the Intrapartum Biophysical Profile Useful?

To the Editor:

Kim et al¹ undertook to “assess the role of BPP [biophysical profile] in normal labor as an adjunct to FHR [fetal heart rate] monitoring” in their recent article. After examining the BPP’s individual relationship with the likelihood of cesarean delivery and neonatal intensive care unit (NICU) admission, they state, “We have demonstrated that BPP could be used *as an adjunct to FHR monitoring*. . . .” However, nothing in their analysis addresses the goal of the study.

The desire to find an adjunct to FHR monitoring stems from its high false-positive rate, which potentially could be reduced by a multiphasic screening approach. A study seeking an adjunct should thus structure the analysis within the context of the FHR results. A key outcome would then involve the BPP’s ability to divide patients with abnormal FHR tracings into those who truly need intervention and those who do not.

This approach would have helped the investigators determine how many patients they would need for their study. No rationale is given for the decision to examine 100 patients. A clear primary outcome and hypothesis (eg, “We expect a BPP score of 6 or lower to reduce the false positive rate of FHR monitoring from 75% to 25%”) would have delineated not only the correct population to study but the appropriate sample size. A study which produces confidence intervals for sensitivity and positive predictive values which are 40–75% wide (Table 3 in Kim et al)¹ is not informative.

We urge caution in the use of the BPP until more definitive studies can be completed.

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REFERENCE

1. Kim SY, Khandelwal M, Gaughan JP, Agar MH, Reece EA. Is the intrapartum biophysical profile useful? *Obstet Gynecol* 2003;102:471–6.

In Reply:

We thank Drs. Krantz and Shaffer for their interest in our work. Unfortunately, they missed the fundamental

purpose of our study and the resulting focus of our paper. In light of the prevailing view that biophysical profile in labor was not useful due to the presumed cessation of fetal breathing in labor, we set out to establish the feasibility and the utility of BPP in labor. Indeed, our findings demonstrated that this technology is feasible and, in fact, may be useful. However, quantifying this utility will require a subsequent study as alluded to in our discussion. We trust that these comments will be illuminating.

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Asymmetric Distribution of Sciatic Nerve Endometriosis

To the Editor:

Because we are performing a similar evaluation, we checked the analysis of Vercellini et al¹ in detail. Our major concern is that the authors chose a broad definition of sciatic endometriosis that included “16 cases of endometriotic sciatic neuropathy confirmed by biopsy and histology” (group 1), cases with presumptive diagnoses of sciatic neuropathy based on imaging without histologic verification (group 2), cases of sciatic radiculopathy (group 3),² and cases with symptoms of sciatic neuralgia and surgical diagnosis of pelvic endometriosis (group 4).

Assuming a common pathogenesis for all 4 groups, the authors combined groups 1 to 4 for analysis. They considered only 2 theories of pathogenesis—menstrual reflux or coelomic metaplasia. The authors assumed that peritoneal pockets that descend into the rectovaginal space³ and peritoneal pockets that descend into the sciatic notch and attach to the sciatic nerve⁴ are the same entity with the same pathogenesis, the menstrual reflux theory.

We would reopen the conclusions of their manuscript for debate. The first conclusion, that sciatic nerve endo-



metriosis is more prominent on the right side, is highly speculative considering the heterogeneous nature of the patients involved and the lack of histologic confirmation in most cases. The authors themselves acknowledge that statistically there were insufficient cases to prove the laterality of endometriotic sciatic neuropathy. At best, endometriosis-associated sciatic neuralgia might be more common on the right side. Their second conclusion, about pathogenesis, should also be reconsidered. Especially for sciatic endometriosis, all hypotheses of pathogenesis should account for the two types of peritoneal pockets.

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1. Vercellini P, Chapron C, Fedele L, Frontino G, Zaina B, Crosignani PG. Evidence for asymmetric distribution of sciatic nerve endometriosis. *Obstet Gynecol* 2003;102:383-7.
2. Vilos GA, Vilos AW, Haebe JJ. Laparoscopic findings, management, histopathology and outcomes in 25 women with cyclic leg pain. *J Am Assoc Gynecol Laparosc* 2002;9:145-51.
3. Batt RE, Smith RA. Embryologic theory of histogenesis of endometriosis in peritoneal pockets. *Obstet Gynecol Clin North Am* 1989;16:15-28.
4. Head HB, Welch JS, Mussey E, Espinosa RE. Cyclic sciatica: report of a case with introduction of a new surgical sign. *JAMA* 1962;180:521-4.

In Reply:

The results of our systematic literature review¹ indicate that endometriosis-associated cyclic sciatica develops significantly more frequently on the right than the left side. The limited number of subjects precludes conclusions based on subgroup analyses. However, the proportion of right-hand-side lesions was similar in subjects who underwent surgery with or without histologic demonstration of sciatic nerve endometriosis and in those who did not undergo surgical exploration (62.5%, 68.4%, and 71.4%, respectively), which supports the consistency of the general results.

Great importance has been given to the so-called "pocket sign," an evagination of the pelvic peritoneum to form a pocket in the surrounding retroperitoneal tissues that extends toward the sciatic notch.² The inlets of such

pockets are observed in the posterior aspect of the ovarian fossa and endometriotic implants are generally found at their bottom. The pockets described by Batt and Smith³ may well have a different origin. However, we did not suggest that the pathogenesis of both types of pockets is menstrual reflux. Indeed, we stated that the significance of these peritoneal defects is unknown, although it cannot be excluded that invagination of peritoneum may be due to inflammation, adhesions, and duplication of adjacent mesothelial areas as a consequence of implantation of endometrial cells. Independently of their origin, these pockets could act mechanically to channel regurgitated endometrial tissue to the sciatic nerve. The sigmoid may cover the inlets of the pockets in the left posterior hemipelvis, limiting access of endometrial cells and protecting the left lumbosacral plexus and sciatic nerve. This sort of anatomic protection is not provided by the cecum, which is more cranial. Although we do not exclude alternative pathogenetic hypotheses, we consider that human anatomy offers a simpler and more logical explanation for the repeatedly observed asymmetry in distribution of endometriotic lesions, including those involving the sciatic nerve.

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Superiority of Electrocautery Over the Suture Method for Achieving Cervical Cone-Bed Hemostasis

To the Editor:

The article by Kamat et al¹ in the October issue about the superiority of electrocautery over the suture method for



achieving cervical cone bed hemostasis does not take other significant factors into consideration for decreasing blood loss, for maintaining shorter operative time and efficiency, and for cost-effectiveness. These significant factors are as follows:

1. Performing the procedure a few days following cessation of menses (extremely important).
2. Performing the procedure under intravenous sedation plus local lidocaine circumferentially around the cervix until it blanches fully.
3. Placing U sutures of number 0 chromic catgut from 4 to 2 o'clock and 10 to 8 o'clock on the external surface, 2.5 cm outside the cervical os.
4. Performing a cold-knife conization with a #11 blade on an angular scalpel, starting at 12 o'clock, circumferentially through 9, 6, and 3 o'clock, back to 12 o'clock.
5. Following the removal of the specimen, U sutures of number 0 chromic catgut are placed from 1 o'clock to 11 o'clock and from 5 o'clock to 7 o'clock on the external surface of the cervix.
6. Silver nitrate may be applied to any raw surface area.

I have performed more than 100 cervical conizations at the United States Naval Hospital in Bethesda, Maryland, at Georgetown University in Washington, DC, and at Sibley Memorial Hospital in Washington, DC, without any postoperative bleeding complication.

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REFERENCE

1. Kamat AA, Kramer P, Soisson AP. Superiority of electrocautery over the suture method for achieving cervical cone bed hemostasis. *Obstet Gynecol* 2003;102:726-730.

In Reply:

Due to the significant morbidity associated with cold-knife conization, many variations in operative technique have been described in the literature. Our study retrospectively compared 2 techniques, electrocautery and suture, for achieving hemostasis after cervical conization and found that electrocautery significantly reduced

blood loss as well as operative time compared with the suture technique. These results are validated by 2 prospective randomized studies, which also showed favorable results for the nonsuture technique.^{1,2} Although there are data to suggest that menopausal status³ and, hence, hormonal status may play a role in the morbidity rate from cold-knife conization, we were unable to address the effect of this factor on the outcome variables due to the retrospective nature of the study. However, some of the other points raised by Dr. Billingsley have been addressed in our findings. Although the majority of our cases were performed under general anesthesia, we did compare the use of intracervical lidocaine with epinephrine as well as topical thrombotics and found that they decreased blood loss in both groups. However, even after adjusting for the effects of these variables, we still found a significant decrease in blood loss and operative time in the electrocautery group. Dr. Billingsley describes using lateral hemostatic sutures in his patients, which were used in 185 of 191 patients in the study. However, on univariate analysis, the use of lateral hemostatic sutures had no effect on either blood loss or operative time. In summary, our findings, which indicate that electrocautery is superior to a suture method for achieving cone bed hemostasis, are in agreement with a meta-analysis of 7 trials which concluded that hemostatic suturing has an adverse effect on blood loss.⁴

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