

## INVITED COMMENTARY

# VAGINAL DELIVERY AFTER CESAREAN SECTION: IS THE RISK ACCEPTABLE?

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### ABSTRACT

Recent studies and commentary have questioned the safety of vaginal births after cesarean sections (VBAC's). The history of VBAC's is reviewed and a framework to continue the safe practice of trials of labor in women with a prior uterine scar is presented. *J Midwifery Women's Health* 2001; 46:272-3 © 2001 by the American College of Nurse-Midwives.

During the early 1970s, the dictum of "once a cesarean, always a cesarean" was one that was followed ad absurdum. Women who presented to the Labor and Delivery suite fully dilated were rushed into the operative theater for a stat cesarean section in order to avoid the 'dangers' of a vaginal birth after cesarean section (VBAC).

By 1980, studies (1,2) documenting the safety of vaginal delivery in patients with a uterine scar began to be published and the VBAC numbers slowly started to increase. Caution was the rule in the early part of the curve. We selected candidates for trials of labor after cesarean (TOLAC) very carefully and we did not compound risks: i.e., we did not use oxytocin, we did not use epidurals, we remained in the hospital during all TOLACs' and we electronically monitored each and every laboring woman. In our institution, even the anesthesiologist had to stand-by during the trial of labor. The results were encouraging and, gradually, we become a bit more confident. Over the course of several years, we moved the prior cesarean section patients to our hospital birthing center, used auscultation for fetal assessment, and continued to produce good outcomes.

In the beginning, significant consumer pressure was balanced by considerable physician reluctance. Both eased with time. However, insurance companies then began to assert their form of influence on medical practices; this vector was so strong that some physicians began performing VBACs without the proper training, in hospitals that were not adequately equipped, and on patients who were not good candidates. The results were sometimes catastrophic.

Although there have been no adequate randomized controlled trials, recent publications have raised questions about the safety

of VBACs (3-5). In the July 5, 2001 issue of the *New England Journal of Medicine* (6), Lydon-Rochelle et al reported data that addressed the safety, or lack thereof, the use of prostaglandin to induce labor on a mother with a prior uterine scar. The relative risk of uterine rupture in the induction of labor with prostaglandin group was 15.6. The practice of inducing labor with prostaglandins in patients with a uterine scar is a prime example of the utilization of a modality without the evidence to prove its safety.

In his editorial based on his study (6), Greene (7) points to the 2.4/1000 increase in the perinatal mortality in TOLACs and concludes that elective repeated cesarean delivery is unequivocally safer for the baby. He postulates that, "... There is no reason to believe that improvements in clinical care can substantially reduce the risks of uterine rupture and perinatal mortality." The validity of this statement needs to be proven. It is far fetched to believe that if one pre-selects patients carefully and manages their labor cautiously that we could significantly lower the perinatal mortality rate? We do not think so.

During the last two decades, our extensive personal clinical experience with VBACs has been superb. We have never used prostaglandin to ripen the cervix. We have rarely used epidurals during labor. We have intervened whenever a patient developed pain in the region of the uterine scar. And, the majority of our patients had two-layer uterine repairs. This 20-year experience resulted in no instances of neonatal compromise or near compromise and no cesarean/hysterectomies in TOLAC patients. During that same time frame, we had a thromboembolic maternal death following a cesarean section in a patient who refused a trial of labor, two cesarean-hysterectomies in patients with prior cesarean sections who had unusual presenting placenta accretes, and two cases of severe post-cesarean hemorrhages that were life-threatening. These five patients and their families suffered serious consequences of their cesarean deliveries.

We should not abandon the successes of the last 20 or so years; nor should we ignore the danger of uterine rupture. The following are our recommendations for safe VBACs: Discontinue the use of prostaglandin to ripen the cervix for labor in VBAC trials.

1. Be very cautious in utilizing oxytocin for either induction or augmentation.
2. Discourage epidural anesthesia during labor; as pain can be a valuable clue to uterine scar separation.
3. Closely attend TOLAC patients during their labors and continuously monitor fetal well-being through frequent auscultation and/or continuous electronic monitoring.
4. Only attempt TOLACs in settings that have immediate availability of an obstetrician, anesthesiologist and operative suite.
5. Develop rapid response programs. Our institution has developed a "CODE C" program; once initiated, Code C empowers the nursing staff to ready the patient for surgery and immediately move her to the operative suite; and, with one phone call, neonatology, anesthesiology, assistant surgeons and administration can be altered.
6. Continue to provide patients balanced and fair information about the complications of both cesarean deliveries and trial of labors in patients with a prior uterine scar.
7. Certified nurse-midwives (CNMS)\* and certified midwives (CMs)\* need not be precluded from attending and delivering VBAC patients. Their philosophy of being "with women" is exactly the type of attention that these women require.
8. Avoid compounding risks. A wise obstetrician once confided that one plus can equal three not two. If a patient has twins or a breach presentation, a contracted pelvis, or a truly macrosomic baby, do the repeat cesarean section. We must carefully apply evidence-based selection criteria to every candidate who seeks a TOLAC.
9. Avoid unnecessary primary cesarean deliveries. It would be reasonable to return to two-layer uterine repairs until the safety of a one-layer repair in trial of labors is proven safe (8).

\*Certified nurse-Midwives and certified midwives as used herein refer to those practitioners who have been certified by the American College of Nurse-Midwives (ACNM) or the ACNM Certification Council, Inc. (ACC).

section is not just another nice way of having a baby. It is major abdominal surgery. The morbidity and mortality risks are compounded by hemodynamic and physiologic changes associated with pregnancy. We have become accustomed to the discharge of a 3-4 day post-operative woman who not only must recover from surgery and mother her newborn baby, but often is still responsible for the care of her other children. These women who are in pain, in need of narcotic analgesia, at risk for sleep deprivation, anemia, cystitis, endometritis, wound infections, and thrombophlebitis, often have little or no help at home. The risks of cesarean sections that extend beyond the inpatient period have not been adequately measured; but they cannot be ignored. As the pendulum begins to swing in the reverse direction, let us be careful to neither over-respond nor ignore the risks of uterine rupture! We must strive to have a cesarean section rate that is reasonable and safe for mother and baby as we continue to amass the evidence upon which to base our practices.

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In view of the recent studies, a reasonable response is to proceed with caution rather than abandoning VBACs completely. A cesarean

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