

COMMENTARY

VAGINAL BIRTH AFTER CAESAREAN SECTION AND THE ISSUE OF HOME BIRTH

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THIS COMMENTARY HAS BEEN PEER-REVIEWED

In October of 2002, the College of Midwives of Ontario (CMO) issued a statement to its membership entitled "VBAC and Choice of Birthplace".¹ This document essentially declared that providing care to women undergoing a vaginal birth after Caesarean (VBAC) was "within the midwife's scope of practice" and that women desiring VBAC (regardless of the number of previous Caesarean sections) must receive the same access as any other client to the "standards of Ontario midwifery care", including choice of birthplace.¹ It was noted within this statement that "no requirement for hospital birth exists for VBAC in the CMO document 'Indications for Planned Place of Birth'".¹

The impetus for this statement was the expressed concern of the College of Midwives that some midwifery practices had made a decision either not to offer home birth to women with a previous low-segment Caesarean section or to clearly inform women that the practice did not attend VBAC labours and births at home. In Ontario, as elsewhere, VBAC has become a topic of concern and debate in both medical and midwifery communities, as more recent literature has called into question the risk of uterine rupture. Thus, there are two issues that need to be considered with respect to this recent directive.

The first of these is the issue of the safety of VBAC at home. VBAC and, more specifically, VBAC at home entered the public consciousness of the childbearing population in the early 1980s with, among other things, the publication of Nancy Wainer Cohen's "Silent Knife: Cesarean Prevention and Vaginal Birth After Cesarean".² The message conveyed by Wainer Cohen and other authors was that uterine rupture in a VBAC was "almost non-existent"; when rupture did occur, it was described as the incision "gently opening or separating".^{2,3} As late as 1991, Wainer Cohen stated that "There has never been a maternal or fetal death associated with a low-segment incision".⁴

At the same time, more mainstream sources were also

recommending that, in an effort to lower the overall Caesarean section rate, VBAC should be regarded as the standard of care and women with a previous Caesarean section should not be regarded as at increased risk. The Caesarean Birth Quality Assurance Committee, mandated by the Ontario Ministry of Health in 1989, recommended to the Ontario Medical Association that the Ontario Antenatal Record be revised to categorize women with one previous documented low-segment transverse Caesarean section as being "at no identifiable risk". They also recommended that guidelines be revised to remove the requirement for primary care providers to obtain specialist consultation for such women.⁵

In general, the literature of the 1980s was reassuring with respect to the safety of VBAC, even in instances in which oxytocin was utilized for induction and augmentation of labour. However, in the 1990s, during which time the rate of VBAC rose and the Caesarean section rates consequently dropped to some extent, evidence began to mount suggesting that perhaps VBAC was not as risk-free as it had previously appeared to be. Published case studies and anecdotal reports of uterine rupture involving maternal and fetal demise began to appear. As the numbers of women labouring after a previous Caesarean section rose, a clearer picture of rupture rates began to emerge.⁶⁻¹⁰ A recently published meta-analysis that included 47,682 women concluded that the risk of symptomatic uterine rupture for women during labour with one previous, low-segment Caesarean section is 0.4% or 1 in 250.¹¹

Proponents of home VBAC have been critical of the current literature on VBAC, stating that women who are "truly" appropriate candidates for home VBAC have not been separated out from those who are not, specifically with respect to the issues of induction of labour, type of uterine closure and interpregnancy spacing. Thus, it is claimed, the "true" rate of rupture in spontaneous labour is not known. Certainly, some studies have not separated out inductions from spontaneous labours in their analysis of uterine rupture. However, one large study that involved

17,613 women labouring after a previous Caesarean also reported a rupture rate of 0.4% with a success rate of 73.73%; these authors separated out inductions in their analysis, finding a higher risk of rupture (0.65%) when compared to spontaneous labour.¹² Similarly, although its methodology has been widely criticized, the work of Lydon-Rochelle (quoted by the College statement as evidence to support its stance) suggests a rupture rate of 0.52% in spontaneous labours after Caesarean section, with the use of oxytocin and/or prostaglandins for induction elevating that rate.¹⁰

The issue of single-layer versus double-layer closure, while important, only brings to light the probability that uterine rupture occurs much more frequently over the baseline rate when a single-layer closure has been employed for the previous Caesarean (OR 4.90).³ In the double-layer closure group in this study, the uterine rupture rate was 0.5%, similar to that found in the Mozurkewich and Hutton meta-analysis. Single-layer closure is a relatively recent technique that has not been universally adopted in North America. It is unclear what impact it has had on the overall uterine rupture rates demonstrated in the literature in the last decade.

Interpregnancy or interdelivery interval has also been addressed in the literature. No consensus has been achieved on what the optimal minimum interpregnancy interval is when VBAC is being considered.¹⁴ Bujold et al. found that an interdelivery interval of ≤ 24 months increased the risk of rupture.¹³ Given the numbers of women (including women planning or having VBACs) who have children that are less than two years apart in age, it would seem that many of them could be at increased risk for uterine rupture in subsequent pregnancies and births.

Recently, Robert Gauthier has suggested, based on his analysis of the available evidence, that a woman with a long interpregnancy or interdelivery interval and a double-layer closure in a previous Caesarean section has a 0.4% risk of uterine rupture. A woman with a short interpregnancy/interdelivery interval and a single-layer closure, however, has a uterine rupture risk of 5.6%. This is equivalent to the risk for a woman with a classical Caesarean section scar.¹⁵ Given the large and rapidly growing body of literature regarding VBAC, it may be difficult for busy practitioners to remain abreast of such information in order to best inform their clients and their practice.

It is also argued that, since being in a hospital does not guarantee a good outcome in the event of a uterine rupture, place of birth may not have an impact in this regard. Although there is no precise agreement on the exact "decision to incision" time that prevents poor outcome when uterine rupture is recognized, the literature offers times that range from 17 to 26 minutes.^{16,17} It is highly unlikely that emergent Caesarean section could be accomplished within such a time frame from the home environment, even in urban settings. Conversely, midwives should bear in mind that the relatively good outcomes that have been observed with respect to perinatal morbidity and mortality in VBAC labours have been derived from studies that would have been conducted primarily in centres with immediate Caesarean section capability.

Those midwives who have concluded that there is a degree of risk that precludes the home (or even a level I hospital without

Caesarean section capability) as an appropriate place for VBAC find themselves placed in an ethical dilemma by the College directive. This is the second issue that the directive raises. As health care providers, midwives are ethically required to inform women of the risks (as well as the benefits, of course) of a variety of forms of care, and they are also ethically obliged to make a recommendation on a course of action, based on clinical knowledge and understanding of an individual woman's situation. Requiring midwives to attend home VBACs, in those cases where women choose it despite the evidence offered, is, for midwives who believe that this is not a safe option, a directive to act unethically.

It could be argued that offering home birth to a woman with a uterine scar is, itself, an unethical action. It would surely seem almost tautological to state that women who are candidates for birth at home are women with no defined obstetrical risk factors. Although it is true that all birth entails some small and unpredictable degree of risk, midwives generally recommend to women with significant identifiable risk factors predisposing to problems in the intrapartum and immediate postpartum period that they give birth in hospital. The College of Midwives of Ontario already states that "birth should be planned to take place in the hospital in the circumstances of multiple birth, breech presentation, preterm labour prior to 37 weeks of pregnancy, and documented post-term pregnancy of more than 43 completed weeks".¹⁸ If problems arise during labour, then transport to the appropriate facility is recommended.

Women planning a VBAC do have an identified risk factor: a 1 in 250 risk of symptomatic uterine rupture, which could be life-threatening to either mother or baby, or both. The chances for a good outcome after uterine rupture are influenced by the availability of emergent assistance. If a woman is informed of these risks and then given the offer of a home birth (which is, presumably, offered only to women who have no identified risk factors), the impact of the discussion of those risks is surely minimized or negated. Why should a woman think that the risk of uterine rupture is of any consequence, if she is simultaneously being offered the opportunity to give birth at home, which is generally perceived to be appropriate only for women not at risk?

It is frequently suggested that if women who have had a previous Caesarean section are not offered choice of birthplace they will opt to have their babies at home anyway, often unassisted. Therefore, it is argued, midwives are obliged to maintain this option for women so that they may give birth with skilled assistance. The decision-making processes around providing care for women who make choices that may threaten their health and their baby's health are complex and individual to each midwife, and to each woman for whom she is providing care. I would argue that there is, however, a vast difference between offering home birth to a woman who has had a previous Caesarean section and providing care to a woman who, despite a practice protocol that precludes VBAC at home and despite counselling against that option, decides that she will give birth at home alone rather than receiving care in the hospital setting. In the latter instance, midwives may decide that giving birth unassisted is also the woman's freely made choice and discontinue her care with the proper notification and College consultation, or they may decide to continue care, but following a course which would include notifying the insurers, consulting with perinatal

ethics committees and discussing the management with sympathetic obstetric consultants.

Many of the ethical complexities concerning informed choice and choice of birthplace have yet to be adequately studied and explored in the midwifery community, especially as they relate to women's autonomy and the obligation of midwives to provide care in situations that they feel are unsafe or out of the scope of practice. Certainly, such considerations are long overdue, as are discussions regarding the role of the College in dictating clinical decision-making in the context of its "duty to serve and protect the public interest".¹⁹ Only through rigorous examination of the issues can solutions be proposed that serve both women as autonomous decision-makers and the midwives who provide care to them.

Historically, as midwives in Canada, we have heard from women who have felt disenfranchised by the medical system and made choices, such as giving birth at home, which may have appeared to be antithetical to conventional wisdom. However, in this instance, if we do not also listen to the voices of women who have experienced uterine rupture and, often, the consequent loss of their uteri or the deaths or disability of their babies, we are doing VBAC women a disservice. Any midwife conversant with the Internet can read these stories in abundance by entering "uterine rupture" into a good search engine. The words of these survivors provide a different perspective to the work we are doing in assisting women during pregnancy and childbirth, and the great responsibility that we bear in doing that. With this in mind, it would seem reasonable to request that the College of Midwives of Ontario revisit the statement on VBAC and choice of birthplace, and that further policy regarding this issue be based upon a rigorously conducted review of the literature and a consensus opinion of practicing midwives.

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