



Going with the Flow – An Alternative Perspective on VBAC

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A practice incident triggered renewed reflection on the evidence relating to vaginal birth after Caesarean section (VBAC), and the option of waterbirth in a tertiary care setting for a subsequent labour and birth.



Rose's VBAC

Rose* was planning a normal vaginal birth with her second baby. Her first child, Charlie, had been 'delivered' by Caesarean section after failed induction of labour. Her birth preferences were discussed at length during this second pregnancy, and she decided that she wanted to birth her baby in the tertiary unit, but to labour at home for as long as she felt able. She wanted to move around freely and avoid the use of pharmacological pain relief. At that stage the consideration of using water for either labouring or giving birth, held little appeal for her.

After a tiring week in prodromal or pre-labour, Rose went spontaneously into active labour at home and was in well established labour on arrival at the tertiary unit where she unexpectedly requested the use of a room with a birthing pool.

The charge midwife was asked about the availability of a room with a pool and informed the Lead Maternity Carer (LMC) that this would not be recommended, as women were not allowed to use the pool if they had had a previous Caesarean section. It was not an appropriate time to pursue the matter as Rose was clearly

making rapid progress and, shortly after the discussion, birthed her baby daughter beautifully on terra firma without any form of intervention.

In spite of a positive outcome for Rose, this event left me with several issues to reflect upon. In my career as a midwife, I have assisted a number of women to birth in water following a previous section, including a few at home, with what I would consider to be broad (though, admittedly, sometimes reticent) support from my obstetric colleagues. I was therefore intrigued to find out why there appeared to be such concern. I wondered if there had been an update in evidence around waterbirth and VBAC that had passed me by. Perhaps new risks had been identified from recently published studies. These deliberations led me to consider what information I should be offering women in this situation to enable them to make informed decisions?

What is the Evidence?

As so often occurs with midwifery associated forms of intervention, there is a notable shortage of evidence relating to VBAC and waterbirth.

A 1998 audit in the United Kingdom¹ identified 343 women who birthed in a pool over a three year period, including 10 who had previously had a Caesarean section. None of

the women were reported to have experienced any negative outcomes. The focus of the audit was, however, on normal 'low risk' women and the VBAC women were not singled out for further scrutiny.

More recently in 2006, Garland² carried out a robust study of three years data to identify whether it is safe and realistic for women who had had a previous Caesarean section to labour and birth in water. Only 10 of the 92 women originally identified did not proceed to use water in labour. Of the remaining 82 women, 64 (80%) went on to achieve a vaginal or instrumental birth. These findings certainly warrant further investigation, particularly in light of the maternal satisfaction survey.

There is, however, a great deal of evidence to support the use of water in labour more generally. Studies carried out advocate that the hydrostatic benefits of using water in labour appear to:

- improve uterine perfusion;
- decrease pain perception;^{3,4}
- lead to shorter labours and, therefore, decrease the need for augmentation;⁵ and,
- reduce the woman's anxiety.⁶

All of these factors, it could be argued, may offer advantage to a woman labouring with a scarred uterus.

* Names have been changed to protect the woman's and baby's identities.



Relative Risk and VBAC

I do not intend to play down the rare but serious possibility of scar dehiscence or uterine rupture (Table 1). The results can undeniably be devastating, leading in the worst possible case to hysterectomy, foetal demise and even maternal mortality.⁸ However, we do need to keep a sense of perspective around potential risks.

Due to the questionable quality of many of the studies reviewed, it is difficult to gain an accurate picture of the relative risks.⁹ Dehiscence is believed to occur in around 1.1% of VBAC labours, and true rupture occurs in between 0.3%-0.7% of VBAC labours. A frequently cited estimate is 0.5%. The Cochrane Review⁹ estimates that between 374 and 809 women would need to undergo elective repeat Caesarean to prevent a single case of uterine rupture, and between 693 and 3332 women would need to undergo elective repeat Caesarean to prevent a

single foetal or neonatal death attributable to a 'trial of labour'.

Waterbirth and Guidelines

The New Zealand Guidelines Group (NZGG) publication on care of women with a previous Caesarean birth¹⁰ does not mention the use of water as an option in labour. Likewise in the NICE Clinical Guideline, *Caesarean Section*¹¹, the issue of water is significant by its absence.

Yet the evidence-informed publication, *Guide to Effective Care in Pregnancy and Childbirth*, states: "The care of a woman in labour after a previous lower-segment Caesarean section should be little different from that of any woman in labour¹²." Therefore, we must ask - why would this not include labouring in water if she so wishes?

The New Zealand Context

I considered if Rose's situation was a localised response to a 'near miss' or something similar, or whether the issue of pool use and VBAC was something more widespread. I discussed the matter with colleagues and posted on the New Zealand Midwifery Yahoo group list for anecdotal evidence. It transpired that VBAC request for waterbirth does appear to create dissonance in many maternity units throughout New Zealand, with women frequently having to fight to secure the use of a pool for labour and birth.

Chapman¹³ reviewed the waterbirth protocols from five North Island hospitals and discovered that a lack of reference to research, and discrepancies between protocols, challenged their validity. Three of the five protocols outlined previous Caesarean section as a contraindication for pool use without,

it would seem, the support of any real evidence.

The Caesarean section rate for all births in New Zealand is now running at a conservative estimate of 1 in 4 births.¹⁴ The number of women opting for a repeat Caesarean section in New Zealand is currently increasing. According to the NZGG, the rates of vaginal birth after Caesarean have fallen from 50% of births in 1992 to 33% in 2000.¹⁰ This raises the questions:

- Are women who have undergone Caesarean section being informed that VBAC is a risky choice that may well turn out to be hazardous, especially for the baby?
- What messages are we sending to women when we inform them that the risks of VBAC (of which we have already established are far from definitive) mean that they will not be able to birth at a primary care unit?
- Should women be prepared for early admission in labour, continuous electronic foetal monitoring, the siting of a cannula so that an IV can be set up quickly if needed, and restrictions on the length of the first and second stages of labour?
- Is it really surprising that women are turning their backs on the option of a 'trial of scar'?
- Where are the studies that set out to study what diligent but unobstrusive monitoring has on VBAC outcomes?

The recommended practice of continuous foetal monitoring during labour for intended VBAC could conceivably put pay to plans to labour in water. But this recommendation may be considered as less than definitive guidance when

<p>Table 1 Impending Uterine Rupture</p> <p>Symptoms and signs of impending rupture include:</p> <ul style="list-style-type: none"> • foetal heart variations • rising maternal pulse rate • sudden cessation of contractions • continuous scar pain • vaginal bleeding • haematuria • retraction of the presenting part (on vaginal assessment).⁷ <p>All of these symptoms and signs may be determined if a woman is labouring in water.</p>
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one regards the recently published VBAC guideline¹⁵ from the Royal College of Obstetricians and Gynaecologists (RCOG) which states that “the relative and absolute risks of severe adverse events in the absence of continuous electronic foetal monitoring are unknown”.

If continuous electronic foetal monitoring is felt to be necessary in terms of risk management, there are CTG monitors that can be used in water. If the broad costs of assisting a woman to achieve a normal birth are measured against the costs of installing such equipment, then this makes economic sense, as well as improving maternal satisfaction and all that that entails.

Curtailling Choice

If, as subsequent VBAC labourers, women are denied access to a birthing pool, this threatens to seriously curtail birthing choice. VBAC women may find themselves in a position where, if they wish to use water, they are in the burdensome situation of having to choose between what they are informed is the ‘safe’ choice of being in hospital, or hiring a pool and staying at home. From either a ‘risk-management’ or an ethical perspective, compelling women to labour and / or birth in water after a previous section in a place where they may feel compromised, cannot be justified. Therefore, any protocols pertaining to this, (and to any other clinical issue for that matter), should be clearly related to the best possible available evidence.

Midwifery Care

Perhaps as midwives we need to consider greater involvement of the woman when she is considering birthing choices following Caesarean section, viewing her as an individual instead of the ‘high risk’ candidate, as

she is usually labelled. Support from an LMC with whom the woman has built up a trusting relationship and worked in partnership throughout pregnancy, should enable the woman to make informed choices based on thoughtful deliberation and self assessment of risk, rather than enforced fear.

There are a number of actions that midwives can take, that may or may not be common knowledge, and which could make a difference to outcome, and equip the midwife with greater skills and knowledge to identify potential dehiscence and rupture.

Mary Cronk¹⁶ suggests that we should be explaining several factors to women that would enhance awareness of any change. She describes the experience of sharp, stabbing or burning pains in the lower abdominal area that women with a uterine scar sometimes experience about 20 weeks gestation. Cronk explains that this results from the breaking down of small adhesions. She claims that this is not an uncommon occurrence and if the woman is aware of the sensation, she may recognise a similar feeling in labour, if dehiscence should start to occur. She also recommends that we get the woman to recognise how her scar feels. Is she aware of any bits that are lumpy or a bit tender? Cronk adds that an added benefit of this approach is that this sometimes acts as a vehicle for the addressing of unresolved issues that may even contribute to a successful birthing outcome for this current pregnancy.

It may be prudent to suggest the use of an ultrasound scan to determine placenta position which may be useful, for example, in planning the ‘management of third stage’. Additionally, in the knowledge that placenta accreta is more common following section,¹⁷ this would help

lead informed decision making around the safety of giving birth vaginally or by repeat Caesarean section. Alternatively, we may need to improve our auscultation skills to determine placental site for women who, for whatever reason, do not wish to have an ultrasound scan.¹⁸

When I found myself booking my first VBAC home birth many years ago, I had little support in terms of experience and relatively few sources of information. However, I did attend a conference where the renowned UK obstetrician Wendy Savage was speaking. I approached her about transfer times if dehiscence or indeed full rupture was suspected. She surprised me by advising me to carefully monitor the woman’s pulse. The rationale is that in the event of dehiscence, a leak of serous fluid would cause peritoneal irritation and the shock response would lead to an increase in the woman’s pulse rate. This may be the only indication of dehiscence.¹⁹ It may, therefore, be worthwhile to take and record the woman’s pulse rate during the visits in the run up to labour to establish a baseline. This can then be followed up in labour. Bearing in mind that the normal increase in pulse rate can be considerably increased anyway, monitoring focuses on detecting any sudden dramatic change.

Conclusion

A contributor on an American midwifery archives website suggests that it is time that we adopt the new acronym of WBAC (Waterbirth after Caesarean Section) to bring the real option of waterbirth for VBAC women out of the closet and into the birthing room.

The current silence around the subject leaves it sidelined, and yet there may be great benefits in pool use for women who have previously



experienced Caesarean section. The fact that there is little research evidence to support this as a choice cannot be contested, but that could equally be said for many of the current practices in maternity care.²⁰

Waterbirth has made great gains in popularity and acceptance in New Zealand in the past few decades. Perhaps it is time to seriously debate the issue of VBAC with our obstetric colleagues. It is claimed that two thirds of the members of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists aim to present VBAC as an option for the woman with a single prior Caesarean birth at least,¹⁰ so it would seem that members are not averse to the concept of labouring with a uterine scar.

On a final note, an unexpected result of this inquiry has been the discovery of a veritable abundance of online stories of VBAC, particularly on home birth and VBAC websites. The research evidence may be scant, but the anecdotal evidence is strongly represented. It seems that our sisters are doing it for themselves, with or without our support. Perhaps that is an important factor to consider in our role of supporting women to achieve a meaningful and, in the case of VBAC women, a sometimes important healing birth experience.

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