

Term Breech Trial – Commentary

Enrollment in the Term Breech Trial was stopped on April 21, 2000 with 2088 enrollments out of the proposed trial of 2800. The Data Safety Monitoring Committee reported “*the results were clearly in favour of planned Caesarian section*”.[1] When data was excluded from analysis for those women who had prolonged labour, induction/ augmentation of labour with oxytocin/prostaglandins, epidural anaesthesia, footling/ uncertain type of presentation or no skilled/experienced clinician at birth, the findings were similar. The report [2] notes reduced benefit of Caesarian section in countries that have a high perinatal mortality rate - the authors postulate “*possibly because of higher levels of experience with vaginal breech delivery in those countries*”. However these countries did not reflect the same reduction in serious neonatal morbidity.

The 1994 *Canadian Consensus on Breech Management at Term* [3] gave a clear and comprehensive guide to the medical literature to set the Protocols [4] for the trial. It augured well that the Protocols proposed care that was less interventionist than many of the breech births that are ‘managed’ in New Zealand’s hospitals. There would be no mandatory epidural anaesthesia. Continuous foetal heart rate monitoring would be subject to the same criteria as cephalic presentations. Breech extraction would have no place in the labour and birth care. There would be no fixed time limits for the duration of first stage of labour as long as there was continual and progressive dilation of the cervix. There was acknowledgement of physiological pushing rather than simply a time limit on the second stage of labour, irrespective of pushing efforts.

However, as an avid watcher of the Term Breech Trial [5] the findings come as no surprise. It did not take long for concerns to be raised when reading the Term Breech Trial *Newsletters*. These provided commentary, handy hints and progress on enrollments.

The trial stipulated the need for ‘skilled and experienced clinicians’ to be present at birth and yet reminders were published about this need.[6] There were no experienced clinicians available in a small number of cases [7], and this was later noted to be at 2.6% of the births.[6] The trial was used as a teaching time for less experienced practitioners.[8]

Reminders were published about how to deal with nuchal arms [9], the nature of physiological second stage of labour [5] and the caution that the ‘stuck head’ is very rare, not just restricted to vaginal birth and more often as a result of ‘interference’.[8] Attention was drawn to the differences between complete and footling breech presentations.[6,10]

These reminders were disturbing and indicative of a low level of expertise by some practitioners - a feature common in the literature.[11,12]

The commonly accepted notion when supporting women to give birth to their breech babies is ‘hands off the breech’. This essential was acknowledged in the Consensus Guidelines with “*no intervention until there has been spontaneous exit of the infant to the umbilicus; minimal intervention thereafter with no traction on the body, and controlled delivery of the aftercoming head, either with the use of forceps or the Mauriceau-Smellie-Veit manoeuvre*” [13]. During the study this changed to “*gentle traction while encouraging the mother to push*” [14]. The study report notes that compliance was monitored to “*check that total breech extraction was not done*” [15].

There is an unacceptably wide variation in these approaches. It is unstated how “*gentle traction*” impacted on at least the forty-eight infants (4.6%) in the vaginal birth group whose birth attendants noted “*difficulty with delivery of the foetal head, arms, shoulder or body*”. These same difficulties were also noted to be a feature of the births of seven stillborn babies or neonatal deaths with birth weights of 2400-3500grams.

Detail is given for the sixteen deaths reported in the study after exclusion of the further five infants who had lethal abnormalities. Of the former, three were in the group allocated to Caesarian section and thirteen in the group allocated to vaginal birth. One other infant was noted to have a ruptured myelomeningocele and another a small head, low set ears and deep set eyes. Two infant deaths probably occurred prior to labour. Of those who died:

- 6 infants weighed \leq than 2500gms with the smallest being 1150gms.
- 6 infants weighed 2501-3000gms.
- 4 infants weighed $>$ 3000-3500gms with the largest being 3650gms.

Relevance to midwifery practice

This study provides important information for women with breech presenting babies regarding the medical management of vaginal breech birth. It gives a well-rounded overview of the perinatal morbidity and mortality with such management.

Obstetric management of birth results in high levels of birth injury for women and their babies. Such management, irrespective of presentation, ensures the rate of ‘normal’ birthing in New Zealand falls far short of the at least 85% which is often cited as appropriate.[16] For example, Waikato Women’s Hospital reports that in September and October 2000 women had Caesarian

sections at the rate of 33% & 31% respectively, and an instrumental vaginal birth rate of 10% and 12% respectively. The data notes 2% and 1% respectively were vaginal breech births, though whether these babies were assisted, extracted or physiologically 'normal' breech births is unspecified. The percentage of babies who had a 'normal' birth was only 55% in that facility.[17]

Therefore midwives need to consider how relevant the findings of the Term Breech Trial are to their distinct and separate style of care that facilitates the act of giving birth. As with all randomized controlled trials both the study and control groups did not have a "strong management preference" [18]. The act of giving birth in highly interventionist obstetric childbirth cultures will automatically see those women who wish to achieve natural childbirth exclude themselves from randomization. As this self-excluding group was not studied it is unknown whether the results are generalizable to those women who have a strong preference for natural breech birth.

Fundamental to good outcomes for breech babies is the act of supporting the woman and unborn baby in a labour that is not induced/augmented by prostaglandins, amniotomy or oxytocics and where the woman (and baby) is not sedated or anaesthetised. While the report analyzed these aspects separately, the equally important variables of the woman's desire to achieve natural and healthy birthing and the effect of known caregivers were not studied. The knowledgeable companionship within the continuity of care/carer relationship that the midwife offers is fundamental to providing the opportunity to enhance the physiological process of giving birth. Her setting the scene with a dimly lit room, the use of warm water, avoidance of fear-inspired language and sedation or anaesthesia, her competence at manoeuvres to facilitate difficult birth are all skills that are fundamental to the practice of midwifery.[19]

Publication of results [2] with a commentary [20] urging quick dissemination of findings will be effective in shutting down women's options to give birth naturally to their breech babies. To give a blanket statement that all breech babies should be born by Caesarian section is very problematic. It will result in a great deal of fear for those women (approximately a quarter of all breech presentations [21]) with an undiagnosed breech presentation until labour who go on to rapidly give birth. Within the study 9.6% of babies were born vaginally despite their allocation to the Caesarian section group. This is unlikely to change therefore vaginal breech births will continue to occur – not only accidentally but, as experience shows, by women's choice. The skills to assist women giving birth to their breech babies remain essential.

This study highlights the need for midwifery practice to become more visible. There are midwives throughout New Zealand (and the world) who have attended women in natural birthing of their breech babies with good outcomes. While the nature of midwifery does not lend itself well to randomized

controlled trials, a database of midwifery experience with breech birth is long overdue.

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TERM BREECH TRIAL

Planned caesarean section versus planned vaginal birth for breech presentation at term: a randomised multicentre trial

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Summary

Background

For 3-4% of pregnancies, the fetus will be in the breech presentation at term. For most of these women, the approach to delivery is controversial. We did a randomised trial to compare a policy of planned caesarean section with a policy of planned vaginal birth for selected breech-presentation pregnancies.

Methods

At 121 centres in 26 countries, 2088 women with a singleton fetus in a frank or complete breech presentation were randomly assigned planned caesarean section or planned vaginal birth. Women having a vaginal breech delivery had an experienced clinician at the birth. Mothers and infants were followed-up to 6 weeks post partum. The primary outcomes were perinatal mortality, neonatal mortality, or serious neonatal morbidity; and maternal mortality or

serious maternal morbidity. Analysis was by intention to treat.

Findings

Data were received for 2083 women. Of the 1041 women assigned planned caesarean section, 941 (90.4%) were delivered by caesarean section. Of the 1042 women assigned planned vaginal birth, 591 (56.7%) delivered vaginally. Perinatal mortality, neonatal mortality, or serious neonatal morbidity was significantly lower for the planned caesarean section group than for the planned vaginal birth group (17 of 1039

[1.6%] vs 52 of 1039 [5.0%]; relative risk 0.33 [95% CI 0.19-0.56]; $p < 0.0001$). There were no differences between groups in terms of maternal mortality or serious maternal morbidity (41 of 1041 [3.9%] vs 33 of 1042 [3.2%]; 1.24 [0.79-1.95]; $p = 0.35$).

Interpretation

Planned caesarean section is better than planned vaginal birth for the term fetus in the breech presentation; serious maternal complications are similar between the groups.