Breech Birth Beyond the 'Term Breech Trial'

The Term Breech Trial[1] (TBT) was established to end decades of debate around the question - 'which is the better way for the breech baby at term to be born: planned Caesarian section or planned vaginal birth?' With twenty-five participating countries this randomized controlled trial was touted as being able to provide the definitive answer to this frequently asked question. Recruitment started in January 1997 and enrollment was stopped on April 21, 2000. There had been 2088 out of the proposed 2800 women enrolled in the trial. The Data Safety Monitoring Committee reported that "the results were clearly in favour of planned Caesarian section".[2] As an avid watcher of the Term Breech Trial the findings come as no surprise.

The research process started well with the 1994 *Canadian Consensus on Breech Management at Term* [3] giving a clear and comprehensive guide to the medical literature to set the Protocols[4] for the trial. It augured well that these proposed less interventionist care than many of the breech births that are 'managed' in hospitals in the Western world. Many routine but arbitrary interventions were to be abandoned, such as:

- Mandatory epidural anaesthesia;
- Continuous foetal heart rate monitoring (unless clinically warranted);
- Breech extraction, and;
- Unrealistic time limits on a woman pushing out her baby.

However, it did not take long for concerns to rise when reading the *Term Breech Trial Newsletters* available on the website. These provided commentary, handy hints, progress on enrollments and tips on how to 'sell' the study to women and health professionals. (A list of prizes awarded monthly to the centers that reached or passed their annual recruitment goals also featured.)

Lack of expertise in physiological breech birth

The medical literature frequently acknowledges doctors lack expertise in vaginal breech birth. Obstetric training schemes are inadequate due to the proliferation of delivery by elective Caesarian section which means doctors are simply not able to develop the skills necessary for safe vaginal breech birth.[5, 6, 7]

The Term Breech Trial stipulated the need for "skilled and experienced clinicians" to be present at birth but the trial was also used as a teaching time for less experienced practitioners.[8] Reminders were published about the need for expertise[9, 10] when it became clear there were no experienced clinicians available at some births[9] (2.6% in the whole study). The report[11] notes reduced benefit of Caesarian section in some countries - the authors postulate "possibly because of higher levels of experience with vaginal breech delivery in those countries".

The commonly accepted notion when supporting women to give birth to their breech babies is 'hands off the breech' until the nape of the neck is seen, unless there is a specific problem that needs earlier intervention. This was acknowledged as essential in the Consensus Guidelines:

> "[N]o 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"[12].

During the study this changed to "gentle traction while encouraging the mother to push".[13] The study report notes that compliance was monitored to "check that total breech extraction was not done".[11] There is an unacceptably wide variation in these approaches.

The fear which surrounds breech birth was apparent when the research team felt the need to publish the caution that the "'stuck head' is very rare, not just restricted to vaginal birth and [is] more often as a result of 'interference' ".[8] There were forty-eight infants (4.6%) in the vaginal birth group who were subjected to "gentle traction" when the doctors had "difficulty with delivery of the foetal head, arms, shoulder or body". The deaths of five babies with birth weights of 2400-3500 grams were recorded as being "difficult vaginal delivery". In one further case a baby died following a difficult attempt at vaginal delivery with the birth ending in Caesarian section.

No analysis was given as to whether or not the difficulties experienced in the trial were caused by traction, panic, inexperience or a combination of these things.

The fact that planned Caesarian section is not necessarily protective is evidenced by two cases of spinal cord injury and basal skull fracture, prompting one commentator to note that if caesarian section were protective of the baby "such injuries should not happen".[14]

Handy hints given throughout the trial explained the difference between complete and footling breech presentations [15]; how to deal with the baby's arms if they were above the head[16] and the nature of physiological second stage of labour[10]. The need for these reminders was disturbing and indicative of a low level of expertise by some of the medical practitioners in the study.

Medicalised childbirth

The finding of the Term Breech Trial provides important information for women with breech presenting babies regarding the medical 'management' of vaginal breech delivery. It gives a well-rounded overview of the injury and death rates around the time of birth (perinatal morbidity and mortality) with such management. However, the way in which vaginal breech delivery is conducted within the Medical Model of Care is no more conducive to a physiological process of giving birth than any other medically 'managed' birth.

Medical management of birth results in high levels of birth injury for women and their babies, irrespective of presentation. It ensures the rate of 'normal' birthing in the

Western world falls far short of the at least 85% which is often cited as appropriate.[17]

Turning on the Cascade of Intervention

The interventions that are used in medicalised birth can turn a potential risk into an actual complication. A recent study[18] reported in the *American Journal of Perinatology* examined the circumstances surrounding umbilical cord prolapse for eighty-seven women. It found that in forty-one cases (41% of its study group) obstetric practices - including artificial rupture of the amniotic membranes, (commonly known as 'breaking the waters'), application of 'scalp' electrodes and intrauterine pressure catheter insertion - preceded umbilical cord prolapse.

In the Term Breech Trial amniotic membranes were artificially ruptured in 22.4% of the vaginal birth group. The impact of this intervention on the 1.2% 'in labour' cord prolapse rate was not discussed.

Artificial rupture of membranes is known to cause irregularities in the unborn baby's heart rate, precipitating further intervention.[19] The TBT notes 15.2% of the vaginal birth group had abnormalities of the unborn babies' heart rates and this was cited as the reason for 28.6% of the unplanned Caesarian sections performed in labour. Cause and effect as to how artificial rupture of membranes impacted on heart rate abnormalities is not addressed in this study.

There were 14.9% of women in the vaginal birth group who had labour induced and 49.8% augmented with prostaglandins or oxytocin. Such high rates (64.7% combined) are indicative of highly interventionist birth practices.

The reason for Caesarian section was given as 'failure to progress or foeto-pelvic disproportion' in 50.1% of the unplanned Caesarian sections in labour. The all-encompassing label of 'failure to progress' is regularly used in medicalised childbirth (irrespective of presentation) to describe those women who do not labour within rigid time frames – time frames that are based on flawed science.[20] It would be more accurate to categorize 'failure to progress' as 'failure to be patient'.

The 46.3% epidural rate in the vaginal birth group is disturbing. Epidural anaesthesia immediately places the mother and babies 'at risk' of the Cascade of Intervention and operative birth.[21]

Randomised controlled trials

It is important to question the relevance of the TBT's findings to women who are motivated to achieve physiological, natural breech birth. As with all randomized controlled trials both the study and control groups did not have a "strong management preference".[22] The act of giving birth in highly interventionist childbirth cultures will automatically see women who wish to achieve natural childbirth exclude themselves from a lucky dip as to whether or not they are able to have a vaginal birth as their goal.

Within the study 13.5% of women in the vaginal birth group requested Caesarian section which calls into question the decision-making process of being in the study.

The women who did not agree to be in the trial were not studied. It is simply unknown if the study's findings could be generalizable to those women who have a strong preference for natural, physiological breech birth.

The midwifery model of care

The Term Breech Trial does nothing to investigate outcomes where the Midwifery Model of Care prevails. This distinct and separate style of care that potentiates the non-injurious act of giving birth includes:

- Ensuring services are woman-centered rather than institution- or practitioner- centered;
- Providing continuity of care by a known and trusted caregiver throughout pregnancy, labour, birth and afterwards;
- Ensuring that women have the ability to maintain control over decision-making;
- Recognizing that 'birthing potential'[23] embraces the potential need for additional specialist services when alerting factors are present (such as breech presentation) rather than a routinely prescribed and performed set of interventions irrespective of the individual woman's or baby's circumstances; and,
- Supporting the physiological process of birthing in the absence of pathology.

The midwife: 'expert' in physiological breech birth

So can midwives be better placed to facilitate the act of physiological breech birth when they may be subject to the same limitations of vaginal breech experience as obstetricians in interventionist birth cultures? The answer is a resounding 'yes'!

Fundamental to good outcomes for breech babies is the act of supporting the woman and unborn baby in a labour that is free from induction/augmentation by prostaglandins, amniotomy or oxytocics and where the woman (and baby) are not sedated with narcotics or paralysed by epidural anaesthesia. These are all basic tenets of the Midwifery Model of Care that enable the woman and baby to maximize their innate abilities.

Equally important variables are the woman's desire to achieve natural and healthy birthing and the effects of having known caregivers (as mentioned previously, neither of which were studied in the Term Breech Trial).

The knowledgeable companionship within the continuity of care/carer relationship that the midwife can offer 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, sedation and anaesthesia and her competence at manoeuvres to facilitate difficult birth are all skills that are fundamental to the practice of midwifery.[24]

Breech presentation is a variation of the usual rather than pathological in itself. The Midwifery Model of Care accepts that an extended or flexed legs breech baby at term will be born vaginally unless there is a problem or obvious contraindication - in which case, the baby needs to be born by Caesarian section for the best outcomes for the new born.[25] When care is provided from this philosophy, the vaginal breech birth rate is high with no compromise to the baby.[26]

Supporting the woman's right to choose

Publication of the Term Breech Trial findings[11] with a commentary[27] urging quick dissemination of the same will be effective in shutting down women's options to give birth to their breech babies. Within weeks of publication, midwives in New Zealand report women have been unable to find obstetricians to support their decisions to do so. It may only be a matter of time until care from an obstetrician during a vaginal breech birth becomes unprocurable.

A policy of mandatory Caesarian section is very problematic for a number of reasons:

- There will always be those babies (approximately a quarter of all breech presentations) who remain undiagnosed until labour[28] and many will be born vaginally before Caesarian section can be organized. Within the TBT, 9.6% of women experienced vaginal birth despite their allocation to the planned Caesarian section group. Of these 100 women, the reason given in 59 cases was that vaginal birth was imminent. This is unlikely to change therefore vaginal breech births will continue to occur.
- The fear evident with medicalised practitioners will only increase. It is likely that birth injuries will increase as practitioners, guided by fear, perform panicked interventions when faced with breech presenting babies, first diagnosed in labour, who go on to rapidly be born.
- Experience shows that when women have had the opportunity to consider the findings of the Term Breech Trial, some will continue with their plans to give birth vaginally to their breech babies.

It is essential that the woman making a fully informed choice to give birth to her baby is supported to do so and that support will need to come from the midwife.

Conclusion

There are midwives throughout New Zealand (and the world) who have attended women in physiological birthing of their breech babies with good outcomes.

The Term Breech Trial highlights the need for midwifery practice to become more visible. A database of midwifery experience and the Midwifery Model of Care with breech birth is long overdue.

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[1] http://www.utoronto.ca/miru/breech/

[2] *Term Breech Trial Newsletter.* Vol. 6. Issue 4. April 30, 2000. http://www.utoronto.ca/miru/breech/0004news.pdf Retrieved June 4, 2000.

[3] http://sogc.medical.org/sogc_docs/public/guidelines/cbree1.htm retrieved January 8, 1998.

[4] http://www.utoronto.ca/breech/protocol.html Retrieved March 24, 2000.

[5] Robson, S.; Ramsey, B. & Chandler, K. (1999, May.) Registrar experience in vaginal breech delivery. How much is occurring? *Australia New Zealand Journal of Obstetrics & Gynaecology.* Vol. 39. No. 2. Pp. 215-217.

[6] Hannah, M. & Hannah, W. (1996, June 8) Caesarian section or vaginal birth for breech presentation at term. *British Medical Journal.* Vol. 312. Pp. 1433-1434. http://www.bmj.com//cgi/content/full/312/7044/1433 Retrieved July 5, 1999.

[7] *The Canadian Consensus on Breech Management at Term.* http://sogc.medical.org/sogc_docs/public/guidelines/cbree3.htm Retrieved January 8, 1998.

[8] *Term Breech Trial Newsletter.* Vol. 4. Issue 12. http://www.utoronto.ca/miru/breech/9812news.pdf Retrieved January 7, 1999.

[9] *Term Breech Trial Newsletter.* Vol. 4. Issue 9. September 30, 1998. http://www.utoronto.ca/miru/breech/9809news.pdf Retrieved December 1, 1998.

[10] *Term Breech Trial Newsletter.* Vol. 6. Issue 3. March 31, 2000. http://www.utoronto.ca/miru/breech/0003news.pdf Retrieved June 6, 2000.

[11] Hannah, M.A.; Hannah, W.J.; Hewson, S.A.; Hodnett, E.D.; Saigal, S.; Willan, A.R. (2000, October 21) Planned caesarian section versus planned vaginal birth for breech presentation at term: a randomized multicentre trial. *The Lancet.* Vol. 356. Issue 9239. Pp. 1375-1383.

[12] The Canadian Consensus on Breech Management at Term http://sogc.medical.org/sogc_docs/public/guidelines/cbree19.htm Retrieved February 8, 1998.

[13] *Term Breech Trial Newsletter.* Vol. 5. Issue 1. January 31, 1999. http://www.utoronto.ca/miru/breech/9901news.pdf Retrieved March 3, 1999.

[14] Leung, WC. (2001, January 20) Correspondence. *The Lancet.* Volume 357. P.225.

[15] *Term Breech Trial Newsletter.* Vol. 5. Issue 5. May 31,1999. http://www.utoronto.ca/miru/breech/9905news.pdf Retrieved June 28, 1999.

[16] *Term Breech Trial Newsletter.* Vol. 5. Issue 12. December 31, 1999. http://www.utoronto.ca/miru/breech/9912news.pdf Retrieved June 4, 2000.

[17] Banks, M. (2000) *Home Birth Bound: Mending the broken weave.* Hamilton, New Zealand: Birthspirit Books. Pp. 19-36.

[18] Usta IM, Mercer BM & Sibai BM. (1999) Current obstetrical practice and umbilical cord prolapse. *American Journal of Perinatology.* Vol. 16. No 9. Pp. 479-484.

[19] Banks, M. (2000) *Home Birth Bound: Mending the broken weave.* Hamilton, New Zealand: Birthspirit Books. P. 94.

[20] *Ibid.* Pp. 89-94.

[21] Roberts CL, Tracy S & Peat B. (2000, 15 July.) Rates for obstetric intervention among private and public patients in Australia: population based descriptive study. *British Medical Journal.* Vol. 321. Pp. 137-141.

[22] *Term Breech Trial Newsletter.* Vol. 4. Issue 6. June 30, 1998. http://www.utoronto.ca/miru/breech/9806news.pdf Retrieved November 25, 1998.

[23] World Health Organization. (1996) *Care in Normal Birth: A practical guide.* Maternal & Newborn. Health/Safe Motherhood Unit. Geneva.

[24] Banks, M. (1998) *Breech Birth Woman-Wise.* Hamilton, New Zealand: Birthspirit Books. Pp.65-92.

[25] van der Hulst, L. (1992) (Ed.) *Technology, A Threat to the Normal Birth Process.* Bilthoven: Catharina Schrader Foundation. P.45.

[26] De Haan, HH. (2000, August) Vaginal breech deliveries. *American Journal of Obstetrics & Gynaecology.* Volume 183. No. 2. http://www.mosby.com/scripts/om.dll/serve?arttype=full&article=a105543 Retrieved November 3, 2000.

[27] Lumley, J. (2000, October 21) Any room left for disagreement about assisting breech births at term? *The Lancet.* Vol. 356. Issue 9239. Pp.1368 -1369.

[28] Nwosu, E.C.; Walkinshaw, S.; Chia, P.; Manasse, P.R. & Atlay, R.D. (1993, June.) Undiagnosed breech. *British Journal of Obstetrics & Gynaecology.* Vol. 100. Pp. 531-535.