

Vaginal Breech Delivery at Term: the Doctors' Dilemma

Abstract:

"When an operation is once performed, nobody can ever prove that it was unnecessary". The Craze for Operations from The Doctor's Dilemma: Preface on Doctors by George Bernard Shaw, 1909*.

Breech presentation complicates 3-4% of deliveries at term and it is associated with an increased risk of perinatal mortality and morbidity^{1,2}. The increased fetal risks may be due to the hypoxia or trauma associated with a vaginal delivery, but this can be minimised if cases suitable for vaginal delivery are carefully selected and labour is supervised by experienced clinical staff³. The increased fetal risk may also be due to other causes, such as congenital malformations, which are independent of the mode of delivery. Before 2000, the elective caesarean section (CS) rate for breech presentation had been rising as obstetricians attempted to avoid the fetal risks associated with vaginal delivery.

The Term Breech Trial was an international randomised controlled trial from 121 hospitals in 26 countries which reported that a policy of planned vaginal delivery for selected breech presentations⁴ at term was associated with a higher rate of perinatal mortality and neonatal morbidity compared with a planned CS⁴. It found no differences in maternal mortality or morbidity between the two arms of the study. The publication of the Trial in the Lancet in 2000 led quickly to a series of professional guidelines advocating elective CS for breech presentation at term and to a further escalation of CS rates^{5,6}. As a result, in many maternity units in developed countries only about one in ten babies presenting by the breech at term are now delivered vaginally. In some cases of vaginal breech delivery labour is so advanced there is not time to undertake a CS, although a CS had been planned.

The Term Breech Trial, however, was seriously flawed^{1,7}. In particular, some of the adverse perinatal outcomes were in cases which should have been excluded from the study. Furthermore, the details published of the adverse fetal outcomes were limited and were not analysed by parity or previous CS. More detailed scrutiny shows that the risks of an adverse fetal outcome was remarkably low in multigravidas who were randomised to a planned vaginal delivery in a trial that included hospitals from both developed and developing countries¹. Soon after new international guidelines were published, the long-term clinical outcomes of the Trial were reported which found no difference between the two arms of the trial in terms of morbidity or mortality "in contrast to our earlier report"^{7,8}. A secondary analysis from the Trial showed that the risks were higher if the CS was performed late in labour, and highest if the baby was delivered vaginally. The intrapartum factors that were associated with higher fetal risk included augmentation of labour and/or prostaglandins ($p < 0.01$), the duration of the second stage of labour ($p < 0.001$) and birth weight ($p = 0.02$). In the planned vaginal birth group, 49.8% had labour augmented, which is surprisingly high. This all suggests that the fetal risks of breech presentation are more strongly associated with labour than with the mode of delivery.

The lack of discernment in rushing to alter clinical practice in response to the Term Breech Trial has had consequences that received little consideration in 2000. The increase in CS for breech presentation in the index pregnancy has meant that there has been an increase in repeat CS, particularly as the number of women in developed countries undergoing a trial of labour after one prior CS has also plummeted dramatically. The increase in CS rates in turn increases the number of catastrophic obstetric complications such as uterine rupture and peripartum hysterectomy^{9,10}. Well-intended attempts to improve fetal outcomes with breech presentation may have come at a cost for the mother's long-term reproductive health, as well as increasing the financial costs of providing maternity care due mainly to the increased length of stay associated with CS.

Even if a CS is planned for all cases of breech presentation at term, some women deliver vaginally. In the Trial, only 90% of planned CS had a CS. A downside of the changes in obstetric practice has been the loss of clinical skills and experience among obstetricians in performing a vaginal breech delivery at term, which also compromises their ability to deliver a breech presentation either in the setting of a preterm labour or after vaginal delivery of the first twin. This loss of clinical skills will be exacerbated as obstetricians who trained before 2000 retire from labour ward duties. As a priority we now need to introduce simulation training for obstetricians in Ireland to teach vaginal breech delivery techniques, as has been necessary in other developed countries. Fourteen years on, an editorial in The Lancet recognises the unintended serious consequences of the Trial, particularly in low-resource settings¹⁰. The authors believe that the increase in CS for breech presentation at term is dangerous, unnecessary and needs to be reversed¹⁰. They urge the global health community to consider the unintended, serious consequences of the policy changes following the 2000 publication in The Lancet, including the impact on already over-stretched maternity services.

The knee-jerk response of the national organisations of obstetricians to the original study should also lead us to reconsider how we respond in general to the publication of clinical obstetric papers in high-impact, general medical journals, and the influence they have had in changing the face of contemporary maternity care globally^{5,6}. It highlights the risks of unquestioned international consensus, where individual errors of clinical judgement may be superseded by collective errors of judgement on a grand scale, potentially causing harm to large numbers of patients¹.

*George Bernard Shaw was born at home on 26 July 1856 by vaginal breech delivery conducted by the Master of the Coombe Lying-In Hospital, Dr John Ringland. Shaw subsequently won the Nobel Prize for Literature in 1925 and an Academy Award (Best Screenplay) for the film Pygmalion in 1939. He died in England at the age of 94 in 1950.

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