

Therapeutics

Planned caesarean section had lower risk for perinatal morbidity and mortality than planned vaginal birth in breech presentation

Hannah ME, Hannah WJ, Hewson SA, et al, for the Term Breech Trial Collaborative Group. **Planned caesarean section versus planned vaginal birth for breech presentation at term: a randomised multicentre trial.** *Lancet* 2000 Oct 21;356:1375–83.

QUESTION: In pregnant women with breech presentation, is planned caesarean section (CS) better than planned vaginal birth (VB)?

Design

Randomised (allocation concealed*), unblinded,* controlled trial with 6 weeks postpartum follow up.

Setting

121 centres in 26 countries.

Patients

2088 pregnant women who had a singleton live fetus in a frank or complete breech presentation at ≥ 37 weeks of gestation. Exclusion criteria were fetopelvic disproportion, fetus estimated to be clinically large or ≥ 4000 g, hyperextension of the fetal head, fetal anomaly or risk for mechanical problems at delivery, or contraindication for labour or vaginal delivery. 2083 women and infants (99.8%) had complete follow up.

Intervention

Women were allocated to planned CS (n=1043) or planned VB (n=1045). Women in the CS group were scheduled for a CS at ≥ 38 weeks of gestation. Women in the VB group had expectant management until spontaneous labour began or induced labour was indicated. VBs were attended by experienced clinicians who were skilled in vaginal deliveries.

Main outcome measures

Perinatal or neonatal mortality at ≤ 28 days or ≥ 1 measure of serious neonatal morbidity. Secondary outcomes were maternal mortality at ≤ 6 weeks or ≥ 1 measure of serious maternal morbidity.

Main results

Among women allocated to planned CS, 941 (90.4%) were delivered by CS. Among women allocated to planned VB, 591 (56.7%) were delivered vaginally. The planned CS group had a lower risk for the combined end point of perinatal or neonatal mortality or serious neonatal morbidity ($p < 0.001$), lower risk for perinatal or neonatal mortality ($p = 0.01$), and lower risk for serious neonatal morbidity ($p < 0.001$) than did the planned VB group (table). The planned CS and VB groups did not differ for maternal mortality or serious maternal morbidity (3.9% v 3.2%, $p = 0.35$) or for maternal mortality (0 v 1 death).

Conclusion

In pregnant women with breech presentation, planned caesarean section had a lower risk for perinatal mortality and serious morbidity than planned vaginal birth.

*See glossary.

Planned caesarean section (CS) v planned vaginal birth (VB) for breech presentation†

Outcomes at ≤ 28 days	Planned CS	Planned VB	RRR (95% CI)	NNT (CI)
Perinatal or neonatal mortality or serious neonatal morbidity	1.6%	5.0%	67% (44 to 81)	30 (20 to 54)
Perinatal or neonatal mortality	0.3%	1.3%	77% (25 to 93)	104 (54 to 416)
Serious neonatal morbidity	1.4%	3.8%	64% (36 to 80)	41 (26 to 90)

†Abbreviations defined in glossary; RRR, NNT, and CI calculated from data in article.

COMMENTARY

Breech presentation occurs in about 3–4% of women with term pregnancies. The practice of routine CS for breech presentation has become internationally widespread. The aim of the trial by Hannah *et al* was to assess the perinatal, neonatal, and maternal effects of planned CS compared with VB on women presenting at term with a frank or complete breech presentation.

Perinatal or neonatal mortality and morbidity were substantially reduced with planned CS. These reductions were similar for countries with low and high perinatal mortality rates. A slightly higher percentage of women had maternal morbidity in the planned CS group (3.9% v 3.2%), but these differences were not statistically significant. A recently updated Cochrane review combining the results of this study with 2 other studies amplifies these results.¹

The intervention can be applied to most developed countries. Problems may occur in developing countries in which facilities, drugs, and medical assistance for CS are not as freely available. In such cases, a VB may still be a viable option for women. I recommend that a symphysiotomy pack and a skilled caregiver be available in the few cases in which a VB is unavoidable or when it is a woman's informed preference to proceed with a VB. All midwives and obstetricians should be trained to do external cephalic versions, and this option should be offered to women before a planned CS at > 38 weeks of gestation.

If an external cephalic version is not possible, a planned CS should be encouraged. Hannah *et al* have shown that both perinatal and neonatal mortality and morbidity are substantially reduced with a planned CS for a term frank or complete breech presentation. However, a slightly increased risk exists for the mother.

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1 Hofmeyr GJ, Hannah ME. Planned caesarean section for term breech delivery. *Cochrane Database Syst Rev* 2001;(1): CD000166.