

# Pregnancy outcomes in breech presentation at term: a comparison between two third level birth centre protocols

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## Abstract

Background: Medical literature supports planned caesarean delivery (CD) for breech presentation at term, due to observed reductions in neonatal morbidity and mortality when compared to normal vaginal delivery (NVD). Objectives: We want to compare perinatal outcomes of singleton pregnancies with breech presentation at term in two University hospitals. One where the option of NVD is routinely offered (Protocol I), a second where these babies are routinely delivered by CD (Protocol II). Study design: A retrospective matched cohort-study was conducted between January 2015 and May 2021. We included singleton pregnancies with frank or complete breech presentations, delivered from 34+0 weeks gestation with known outcomes. Primary outcomes were a composite of adverse obstetrical outcomes (CAOO) and a composite of neonatal adverse outcomes (CANO). Results: 1079 women were eligible for analysis. After matching for possible confounding factors, the final analysis was conducted in 257 patients in each group. CAOO was similar in the two groups (24.1% versus 24.5%, p-value = 1.000), CANO was significantly higher in patients of Protocol I (17.9% versus 1.2%, p-value < 0.001). No neonatal death or birth trauma were reported in either group. The rates of NICU admission (4.3% vs 0.4%; p=0.004), respiratory distress at birth (17.5% vs 1.2%; p<0.001) and APGAR scores <7 after 5 minutes (5.8% vs 0.4%; p<0.001) were significantly higher for Protocol I. Conclusion: Short-term, non-severe adverse neonatal outcomes are significantly increased in the Protocol I group. These must be balanced against the possible negative impacts of caesarean birth on long-term infant and maternal health.

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