

Delivery of Breech Presentation at Term Gestation in Canada, 2003–2011

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OBJECTIVE: To examine neonatal mortality and morbidity rates by mode of delivery among women with breech presentation at term gestation.

METHODS: We carried out a population-based cohort study examining neonatal outcomes among term, nonanomalous singletons in breech presentation among all hospital deliveries in Canada (excluding Quebec) between 2003 and 2011. Mode of delivery was categorized into vaginal delivery, cesarean delivery in labor, and cesarean delivery without labor. Composite neonatal mortality and morbidity (death, assisted ventilation, convulsions, or specific birth injury) was the primary outcome. Logistic regression was used to estimate the independent effects of mode of delivery.

RESULTS: The study population included 52,671 breech deliveries; vaginal deliveries increased from 2.7% in 2003 to 3.9% in 2011, and cesarean deliveries in labor increased from 8.7% to 9.8%. Composite neonatal mortality and morbidity rates at 37 weeks of gestation or greater after vaginal delivery were significantly higher than those after cesarean without labor (adjusted rate ratio 3.60, 95% confidence interval [CI] 2.50–5.15; adjusted rate difference 15.8/1,000 deliveries, 95% CI 9.2–25.2). Among women at 40 weeks of gestation or greater, neonatal mortality and morbidity rates after vaginal delivery were significantly higher than those after cesarean delivery without labor (adjusted rate ratio 5.39, 95% CI 2.68–10.8; adjusted rate difference 24.1/1,000 deliveries, 95% CI 9.2–53.8). Neonatal mortality and morbidity rates were also higher after caesarean delivery in labor.

CONCLUSION: Among term, nonanomalous singletons in breech presentation at term, composite neonatal mortality and morbidity rates were significantly higher after vaginal delivery and cesarean delivery in labor compared with cesarean delivery without labor.