Elective birth at 37 weeks’ gestation for women with an uncomplicated twin pregnancy

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RHL summary

Findings of the review: This review aimed to assess the policy of elective delivery from 37 weeks’ gestation compared with expectant management in women with an uncomplicated twin pregnancy. Two randomized controlled trials involving 271 women and 542 infants from high-resource settings were included for analysis. The policy of elective delivery from 37 weeks’ gestation was not associated with increased birth by caesarean section, perinatal death, serious perinatal morbidity or maternal death or serious maternal morbidity. No differences between policies of elective birth at 37 weeks and expectant management was found in secondary outcomes, for example, haemorrhage requiring blood transfusion, instrumental vaginal birth, meconium-stained liquor, Apgar score less then seven at five minutes, admission to neonatal intensive care, birth weight less than 2500 g, neonatal encephalopathy, and respiratory distress syndrome. Although the number of infants born with a birth weight of less than third centile was not a pre-specified review outcome, it was shown that elective birth at 37 weeks’ gestation reduced this number.

Implementation: The current evidence does not support expectant management of uncomplicated twin pregnancy beyond 37 weeks’ gestation. The authors of the review stipulate that there is no clinical data for allowing for the randomization of women to a later gestational age at birth.

Cochrane review

Citation: Dodd JM, Deussen AR, Grivell RM, Crowther CA. Elective birth at 37 weeks’ gestation for women with an uncomplicated twin pregnancy. Cochrane Database of Systematic Reviews 2014, Issue 2. Art. No.: CD003582. DOI:10.1002/14651858.CD003582.pub2.

Abstract

The optimal timing of birth for women with an otherwise uncomplicated twin pregnancy at term is uncertain, with clinical support for both elective delivery at 37 weeks, as well as expectant management (awaiting the spontaneous onset of labour).

To assess a policy of elective delivery from 37 weeks' gestation compared with an expectant approach for women with an otherwise uncomplicated twin pregnancy.
We searched the Cochrane Pregnancy and Childbirth Group's Trials Register (12 December 2013).

Randomised controlled trials with reported data that compared outcomes in mothers and babies who underwent elective delivery from 37 weeks' gestation in a twin pregnancy with outcomes in controls who were managed expectantly.

At least two review authors independently assessed trial eligibility, trial quality and extracted data from the included trials.

Two randomised controlled trials comparing elective birth at 37 weeks for women with an uncomplicated twin pregnancy, with expectant management were included, involving 271 women and 542 infants. One trial was at an overall low risk of bias, and one trial was at unclear risk of selection bias, performance bias and detection bias.

There were no statistically significant differences identified between a policy of elective birth at 37 weeks' gestation and expectant management with regards to birth by caesarean section (two studies; 271 participants; risk ratio (RR) 1.05; 95% confidence interval (CI) 0.83 to 1.32); perinatal death or serious perinatal morbidity (two studies; 542 infants; RR 0.34; 95% CI 0.01 to 8.35); or maternal death or serious maternal morbidity (one study; 235 women; RR 0.29; 95% CI 0.06 to 1.38).

There were no statistically significant differences identified for the pre-specified secondary maternal and infant review outcomes reported by these two trials between the two treatment policies (including for: haemorrhage requiring blood transfusion; instrumental vaginal birth; meconium-stained liquor; Apgar score less than seven at five minutes; admission to neonatal intensive care; birthweight less than 2500 g; neonatal encephalopathy; and respiratory distress syndrome). While not a pre-specified review outcome, elective birth at 37 weeks, compared with expectant management, was shown to significantly reduce the risk of infants being born with a birthweight less than the third centile (one study; 470 infants; RR 0.30; 95% CI 0.13 to 0.68).

Early birth at 37 weeks' gestation compared with ongoing expectant management for women with an uncomplicated twin pregnancy does not appear to be associated with an increased risk of harms, findings which are consistent with the United Kingdom's National Institute for Health and Care Excellence (NICE) recommendations which advocate birth for women with a dichorionic twin pregnancy at 37 + 0 weeks' gestation. It is unlikely that sufficient clinical equipoise exists to allow for the randomisation of women to a later gestational age at birth.

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