Induction of labour for suspected fetal macrosomia

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An updated version of this systematic review has been published and can be found online at www.cochrane.org. We will soon update the below RHL summary to reflect the updated findings of the systematic review.

RHL Summary

Findings of the review: Macrosomic babies (>4500g) may cause difficult labour with the need for caesarean section or instrumental delivery, shoulder dystocia and/or traumatic birth. Curtailing the baby’s growth by labour induction when macrosomia is expected can theoretically reduce these risks. On the other hand, estimation of the baby’s weight may be misleading, and labour induction itself might introduce complications such as difficult labour and prematurity. Three randomized trials (372 women) found no evidence of labour induction improving outcomes for either the mother or the baby. More information is needed to exclude the possibility of reduced traumatic birth (fractures or brachial plexus injuries).

Implementation: There is insufficient evidence to support labour induction for suspected macrosomia. All birth attendants should be skilled in the management of shoulder dystocia (see RHL video) which occurs unpredictably in large and normal-sized babies.

Cochrane review


Abstract

Women with a suspected macrosomic fetus are at risk of difficult operative delivery or caesarean section. Neonatal trauma may complicate the delivery. Induction of labour may reduce these risks by limiting the fetal growth and, therefore, decrease the birthweight. However, this intervention per se may be associated with an increased risk of caesarean section.

To assess the effects of a policy of labour induction for suspected fetal macrosomia on method of delivery and maternal or perinatal morbidity.
We searched the Cochrane Pregnancy and Childbirth Group's Trials Register (January 2011).

Randomised trials of induction of labour for suspected fetal macrosomia in non-diabetic women.

Both review authors independently assessed trial quality and extracted the data. We contacted study authors for additional information.

We included three trials, involving 372 women. Compared to expectant management, induction of labour for suspected macrosomia has not been shown to reduce the risk of caesarean section (relative risk (RR) 0.96, 95% confidence interval (CI) 0.67 to 1.38) or instrumental delivery (RR 1.02, 95% CI 0.60 to 1.74). Perinatal morbidity was not statistically different between groups (shoulder dystocia: RR 1.06, 95% CI 0.44 to 2.56); one trial reported, however, two cases of brachial plexus injury and four cases of fracture in the expectant management group.

Induction of labour for suspected fetal macrosomia in non-diabetic women has not been shown to alter the risk of maternal or neonatal morbidity, but the power of the included studies to show a difference in rare events is limited. Larger trials are needed to address this question.

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