Is elective delivery at 37 weeks' gestation safe in uncomplicated twin pregnancies?

Yes. This randomized, controlled trial of 235 women who had no contraindication to the continuation of pregnancy found that delivery at 37 weeks was associated with a significant reduction in the risk of serious adverse outcomes for the infants, compared with expectant management (4.7% vs 12.2%; 95% confidence interval, 0.20–0.75; $P = .005$).

FAST TRACK

Data suggest that the nadir in perinatal mortality occurs at 37 to 39 weeks in twins versus 39 to 41 weeks in singletons

Dodd JM, Crowther CA, Haslam RR, Robinson JS; Twins Timing of Birth Trial Group. Elective birth at 37 weeks of gestation versus standard care for women with an uncomplicated twin pregnancy at term: the Twins Timing of Birth Randomised Trial. BJOG. 2012;119(8):964–974.

EXPERT COMMENTARY
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In uncomplicated twin pregnancies, timing of delivery remains an area of controversy. The optimal length of gestation appears to be shorter in twins, compared with singleton pregnancies. Although population-based studies are limited by the inclusion of complicated pregnancies, data suggest that the nadir in perinatal mortality occurs at 37 to 39 weeks in twins versus 39 to 41 weeks in singletons.[1] It is reasonable, therefore, to consider elective delivery of uncomplicated twin pregnancies prior to 39 weeks' gestation, when elective delivery of singleton pregnancies becomes an option. The American College of Obstetricians and Gynecologists suggests that it is safe to continue uncomplicated twin pregnancies beyond 37 weeks, although there is a lack of prospective data to establish the optimal time of delivery.

Details of the study

Enter Dodd and colleagues, who conducted their randomized, controlled trial to assess the risks and benefits of elective delivery of twins at 37 weeks. In this multicenter study from Australia, women who had uncomplicated twin pregnancies at 36 6/7 weeks or beyond with no contraindication to continuing the pregnancy were randomly assigned to:

- **an elective birth group**, with planned delivery at 37 weeks, or
- **a "standard care" group**, with delivery planned at 38 weeks or later.

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WHAT THIS EVIDENCE MEANS FOR PRACTICE

This study provides reassurance that elective delivery at 37 weeks is likely to be safe and could reduce the rate of intrauterine growth restriction. Achieving this reduction would require a higher rate of induction of labor in this population.

An important consideration is the association between elective cesarean delivery and neonatal respiratory disorders, which has been noted in twins[3] as well as in singletons.[4] Therefore, unless there is an indication for earlier delivery, it may be reasonable to await scheduled cesarean delivery at 38 weeks.

Because of a higher rate of intrauterine mortality among monochorionic twins, it is prudent to deliver these pregnancies by 37 weeks.

›› STEPHEN T. CHASEN, MD

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The primary outcome was a composite of serious adverse outcome for the infants, including death and serious morbidity.

The elective birth group delivered at a mean (SD) gestational age of 37.3 (0.4) weeks, versus 37.9 (0.5) weeks for the standard care group. In both groups, more than 80% of pregnancies were dichorionic, and elective cesarean delivery was performed in approximately one-third of women.

Although the primary outcome was less common in the elective birth group, the difference was due entirely to a higher rate of birthweight below the third centile (for gestational age at birth and infant sex) in the standard care group, with no difference in any other individual outcome. The only neonatal death occurred 27 days after birth as a result of group B streptococcus sepsis in one newborn from the standard care group. Induction of labor occurred more frequently in the elective birth group than in the standard care group (50.9% vs 37.8%; $P = .046$).

Strengths and weaknesses of the trial

Among the strengths of this study is the fact that it is the largest published randomized, controlled trial addressing the timing of delivery in uncomplicated twin pregnancies. It also appears to have been well conducted and appropriately analyzed.

The main weakness is that nearly all primary outcomes in both groups involved birthweights below the 3rd centile rather than mortality or clinical outcomes associated with significant morbidity in the newborn period.

No information on ultrasonographic monitoring of fetal growth was provided; it is possible that more aggressive screening could have identified growth restriction, rendering some patients ineligible for randomization and ultimate inclusion in the trial. In addition, nearly 20% of pregnancies were monochorionic; these gestations are typically delivered at early gestational ages due to higher rates of intrauterine mortality.[2]

FAST TRACK

Monochorionic twins are typically delivered at early gestational ages due to higher rates of intrauterine mortality

References

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